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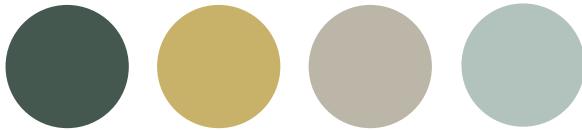
Annunziata Maria Oteri

# LOST AND FOUND

Processes of abandonment of the architectural and urban heritage in inner areas.  
Causes, effects, and narratives (Italy, Albania, Romania)



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**LOST AND FOUND. Processes of abandonment of the architectural and urban heritage in inner areas: Causes, effects, and narratives (Italy, Albania, Romania)**

Edited by Annunziata Maria Oteri

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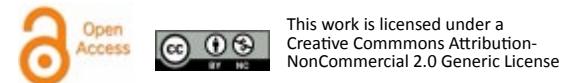
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*Lost and Found. Processi di abbandono del patrimonio architettonico e urbano in aree interne: cause, effetti, narrazioni (Italia, Albania, Romania)*

**Componenti del gruppo di ricerca**  
Marco Mareggi, Agostino Petrillo, Sonia Pistidda

**Altri atenei**  
Renato Sansa, Università della Calabria, Nino Sulfaro, Università *Mediterranea* di Reggio Calabria; Partner internazionali: Irina Tulbure Moldovan, Ion Mincu University, Bucarest; Gjergji Islami, Politecnico di Tirana.





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## PROLOGUE



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## Lost and Found. Approcci *history-based* nelle strategie per la conservazione del patrimonio abbandonato

Annunziata Maria Oteri (Politecnico di Milano)

*Il saggio introduce gli esiti della ricerca Lost and Found. Processes of abandonment of the architectural and urban heritage in inner areas: Causes, effects, and narratives (Italy, Albania, Romania), che studia come i fattori di abbandono e i loro effetti possano aver influenzato i processi di costruzione di memoria e identità nel corso del XX secolo e come tali processi potrebbero condizionare l'attuale percezione e interazione con questi luoghi da parte delle comunità, dunque le potenziali strategie di ripopolamento e riuso o di abbandono consapevole. In particolare, poi, il saggio riflette sulle potenzialità dell'approccio history-based, che ha ispirato la ricerca, in quei casi in cui l'abbandono è causato oltre che da fattori socio-economici, anche da significativi fattori di rischio fisico (idrogeologico, sismico, ecc.). Per approccio history-based si intende qui un metodo che inquadra in una dimensione storica le ragioni profonde dell'abbandono e le conseguenti ripercussioni su territori e insediamenti nell'idea che le interpretazioni che ne derivano possano aiutare a valutare le potenzialità per il rilancio di questi territori o, al contrario, l'impossibilità di un "ritorno in vita". Inoltre, il saggio spiega come questo approccio si sia rivelato utile nella verifica dei processi di costruzione della memoria che hanno condizionato la percezione delle aree in esame (la Calabria meridionale, la regione di Argeș in Romania e la valle del Drino in Albania) la cui storia è in vario modo segnata da catastrofi naturali.*

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# Lost and Found. History-based Approaches in the Strategies for the Preservation of Abandoned Heritage

Annunziata Maria Oteri

«Caring for small towns means understanding them in depth»<sup>1</sup>. This brief quotation summarizes the sense of the study *Lost and Found. Processes of abandonment of the architectural and urban heritage in inner areas: Causes, effects, and narratives (Italy, Albania, Romania)*.

The study investigates how a history-based approach for the study of marginal regions affected by depopulation can help in addressing possible strategies for “mitigating” the phenomenon and its consequences in terms of cultural heritage abandonment. The history-based approach is here intended as a methodology that places the deep-rooted reasons for abandonment, as well as its repercussions on territories and settlements, within a historical context. Such an approach should help assess the potentiality of the relaunch or, conversely, the end of a specific site, as strategies do not necessarily have to or can coincide with the repopulation of these territories and the reuse of abandoned architectural and urban heritage.

The history-based approach also helps us understand how abandonment factors and their effects influenced the construction processes of memory and identity over the 20<sup>th</sup> century and to further grasp how these processes can condition contemporary perception and interaction with depopulated areas and abandoned heritage by different user groups. The results are important to evaluate the potentiality of repopulation and reuse of the abandoned built environment.

1. Rizzo 2022, p. 31 (translation by the author).

Although the study mainly deals with processes and effects of depopulation in southern Calabria, a comparison with similar cases in Europe, particularly Romania, and Albania is proposed. The idea is to relate three areas that are different from many perspectives but are connected by the same shrinkage phenomenon. Furthermore, the cases from Albania and Romania offer interesting experiments with new strategies for repopulation.

The study draws inspiration from the approach outlined by historians (modern and contemporary history, economics, architecture, and urban planning, etc.), geographers, sociologists, archaeologists, and landscape ecologists who examine the processes of transforming the territory. They focus not so much on the physical structure or its representation – which is the outcome of these transformations and not even the last one, as architects often tend to forget – but rather on the layering of long-term processes that define the current structure (both physical and non-physical) of the territories. In particular, the research focuses on regions where depopulation is not solely due to economic reasons but also to adverse events that have accelerated or forced these processes in some cases: earthquakes and floods in Calabria, for example, fires and further floods in Romania; places where depopulation has often been intentional, decreed by laws and regulations, therefore politically driven, and sometimes accompanied by repopulation elsewhere with all the associated issues related to new forms of settlement.

#### *Guiding the reader. The Lost and Found research framework*

The historical dimension of abandonment is here investigated with the dual aim of verifying the dynamics that have led to depopulation, often controversial, unfavourable and not always clearly justified, and the effect of these processes on the studied areas also including the perception of their safety and liveability. Effects and narration of the abandonment are the main focuses of the study, with the idea that every possible recovery of small settlements in marginal areas cannot ignore the facts and how they have been narrated over time. For this reason, as will be seen in the following pages, the volume deals with abandonment and its results on sites and communities looking at it from three different perspectives: the processes, the effects, and the narrative.

Although the phenomenon of depopulation is not exclusive to the modern age, and indeed, population shifts and resettlements have characterized Europe since the Middle Age, the research particularly focuses on contemporary time. In the case of Calabria, Decree n. 445 issued in 1908<sup>2</sup>

2. The appendix to Royal Decree No. 445/1908 defines many settlements to be abandoned or relocated elsewhere. For



Figure 1. The Calabrian case studies (elaboration by N. Sulfaro)

has been taken as a starting point. As specified in the following pages<sup>3</sup>, with the decree, the Italian government established the relocation of a significant number of small towns and villages at risk in Calabria and Basilicata due to seismic or hydrogeological factors. The research then focuses on what happened around the 1950s when significant natural disasters, especially floods (1951 and 1953), accelerated the processes of abandonment and relocation to other sites.

The so-called Grecanica and Locride areas are the focus of the Italian research group with some specific attention to the small towns of Africo, Bruzzano, Canolo, and Ferruzzano in the province of Reggio Calabria (fig. 1). Situated on the ridge of the Aspromonte mountains, these historical villages are today partly or entirely depopulated due to a complex interplay of natural (earthquakes and floods), anthropogenic (depopulation, war), economic, and political phenomena that led to a slow and, in some cases, definitive abandonment and the emergence of a "dual" settlement on the coast around the 1950s, except Canolo, whose new settlement was built close to

Calabria alone, the initial list, later updated, included 62 small communities and 27 villages.

3. See SULFARO in this volume, pp. 202-227.

the historical settlement in the mountain; a circumstance that allowed for interesting comparisons on the outcomes of this unusual choice. The Grecanica and Locride areas are of particular interest for the investigation because the abandonment, closely linked to seismic and hydrogeological risks, primarily since the early 20<sup>th</sup> century, has strongly shaped the socio-economic destiny of these lands which exhibit many physical and socio-economic vulnerabilities<sup>4</sup>. Since the early 20<sup>th</sup> century, the significant historical phenomena of depopulation have merged with a severe crisis in the agricultural sector, with economic, social, cultural, and even geographical consequences that are still being faced today. Some of these villages have been abandoned, others resettled on the coast, in other cases, only part of the population has been moved to new centres, and in some cases, the abandonment has generated a true diaspora of the inhabitants. On the other hand, paradoxically, abandonment is the main reason this area is rich in territorial assets, often untouched (natural landscapes, urban and architectural heritage, traditions, etc.). At the same time, depopulation – often implying the end of a settlement – has almost always coincided with the beginning of another (the village and its double). This has entailed significant disruptions in terms of identity dislocation, as well as aspects related to urban planning in the new centres. The processes of relocating entire settlements have not had positive outcomes for the communities that have endured them, leading to significant consequences in terms of loss of identity, without relevant benefits for a potential socio-economic revival, and lastly, because the relocation has triggered processes of urban redesign on the one hand and the abandonment of traditional heritage on the other, which have not been thoroughly investigated. Indeed, part of the area falls within the scope of the Italian National Strategy for Inner Areas (SNAI), for the socio-economic and cultural relaunch of marginal areas at risk of abandonment (fig. 2).

The abandonment of rural settlements in the 20<sup>th</sup> century, mainly due to a combination of physical and social risks with significant implications for the perception and construction of new identity processes, is also the focus of the other two case studies dealing with Romania and Albania which are presented in the second part of the volume. Primarily, processes and results after the collapse of communism in Albania and from the socialist collectivisation and "systematisation" of rural areas in Romania are analysed. Both cases propose some examples of governmental strategies for triggering repopulation through new uses of the abandoned heritage.

The modes of depopulation in Calabria, particularly the mass exodus that was renewed after the Second World War, seem to have a strong connection with what is happening to rural villages

4. *Ibidem*.

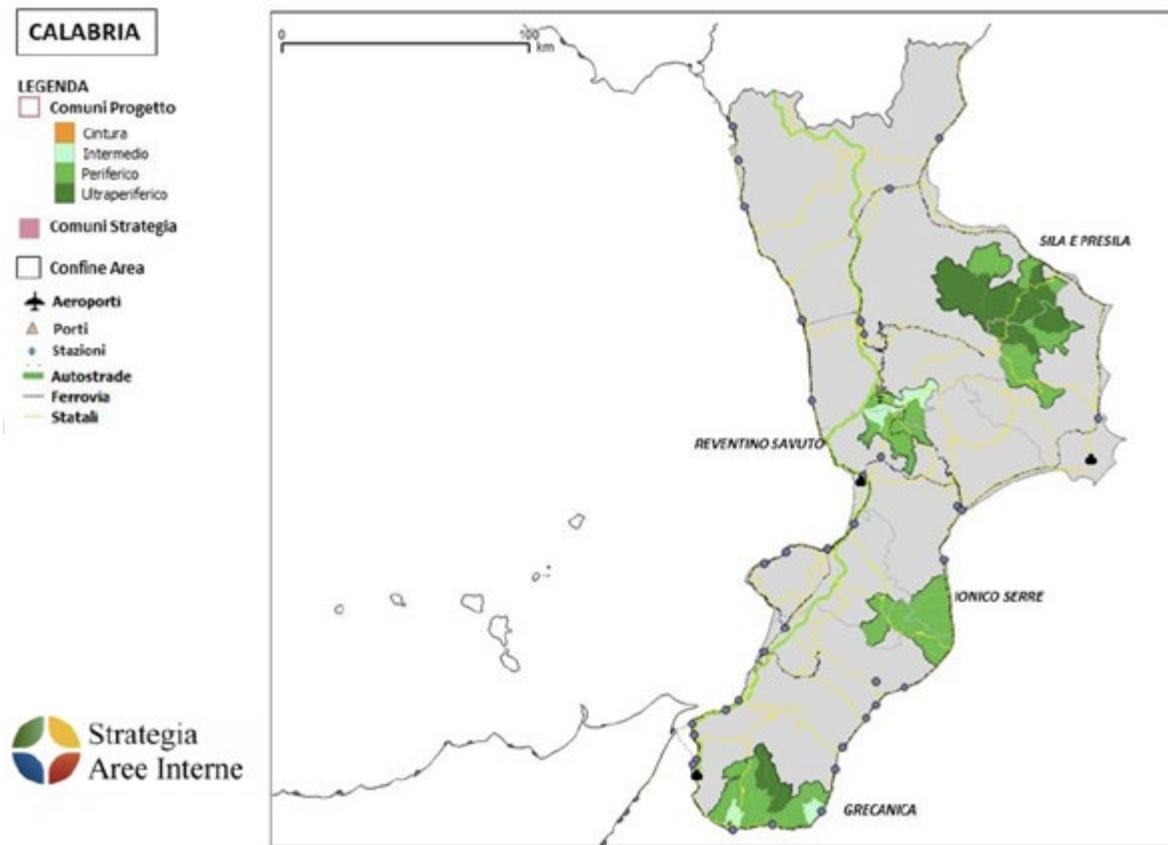


Figure 2. Map of the areas of the Calabria included in the SNAI; <https://www.agenziacoesione.gov.it/strategia-nazionale-aree-interne/regione-calabria-aree-interne/> (accessed 15 December 2023).

in the Drino Valley, Albania after the fall of communism, especially regarding the socio-economic consequences. Since the 1990s, there has been a significant reform of the rural system to dismantle the organization wanted by the socialist government and characterized by state-controlled agricultural cooperatives. Despite attempts to reassign ownership, a competitive revival of agriculture has not occurred, and the massive wave of emigration that affected Albania after the fall of communism has mainly hit rural areas with an enormous exodus of inhabitants towards large urban centres or, in many cases, abroad<sup>5</sup>. Diasporas, natural disasters, and processes of marginalization and depopulation also concern rural villages in Romania. Also, in this case, the social, political, and economic dimensions intertwine, determining significant processes of marginalization that condition a negative narrative and, therefore, the prospects for repopulation and reuse<sup>6</sup>. This aspect is not irrelevant since both the Albanian and Romanian cases are currently interested by "territory-based" projects or strategies for repopulation, primarily aimed at promoting tourism.

While the research focuses primarily on Calabria, comparing Albanian and Romanian cases is helpful as it allows for analysing the outcomes of depopulation in marginal and predominantly rural areas in contexts that vary significantly in geographical, economic, cultural, and even political conditions.

As mentioned earlier, the study is grounded on three main themes – processes, effects, and narratives – which also suggest the structure of the volume. The first part of the volume deals with the causes of abandonment and the policies implemented by the central government to manage depopulation. In the case of Calabria, but this applies generally to other cases as well, abandonment marks the territory – a "territory of abandonment", precisely – which emerges from a superimposition of historical maps<sup>7</sup>. The historical documentation analysed has also defined a framework of often inconsistent policies, activated by the central government to address the emergency caused by the ruthless intertwining of socio-economic reasons and natural disasters. Regulatory tools were specifically designed to relocate local communities and establish new settlements, as evidenced by the essays by Nino Sulfaro and Marco Mareggi. In some cases, these are "experiments" which certainly impact inhabitants and territories, as documented by Renato Sansa in the case of Africo. The second part of the volume focuses on the effects of depopulation on architectural and environmental heritage. The data collected here, partly from archival research and partly from meticulous fieldwork,

5. See ISLAMI, VEIZAJ in this volume, pp. 450-477.

6. See MINHEA *et al.* in this volume, pp. 398-449.

7. See MAREGGI, ROMBOLÀ in this volume, pp. 126-149.

provide a precise picture – albeit relative to specific case studies – of the effect of abandonment on architecture and landscapes. To quote some examples from the volume, the work on cartography by Rosa Maria Rombolà and Marco Mareggi, who superimposed the historical maps, shows that some intrinsic characteristics of the territory (the *fiumare*, for instance, that conditioned the historical and current mobility in Calabria) along with the different land uses over time influenced the depopulation processes. Looking at these maps in more depth, a sort of diagram of accessibility and inaccessibility of these areas also emerges that cannot be ignored in the perspective of envisioning new uses.

The research then aimed to map the disused built heritage, highlighting the potential and possible uses of digital cartography and drone mapping in understanding small historical centres<sup>8</sup>. The digital map presented here by Morena Scaglia and Caterina Valiante aims to define possible methods of analysing the specific problems of small historic centres at risk of abandonment, experimenting with this approach through a case study, the ancient settlement of Ferruzzano Superiore (Reggio Calabria) (fig. 3). A digital database collected data relating to the urban and architectural characteristics of the built heritage and the current conditions of the structures and materials, highlighting their critical issues and residual potential for possible reuse. The application of this methodology shows how such an approach – albeit characterized by rapid survey – can provide an essential knowledge base to support decision-making processes involving the reuse and enhancement of the architectural heritage of small historical centres. A reflection in this regard, attempting to direct the outcomes of history-based research towards possible methods of evaluating the reuse potential of these historical settlements, can be found in the essay by Sonia Pistidda.

Strategies for repopulation and new perspectives for the future of small villages at risk of depopulation are also explored in the case of rural villages in the Drino Valley, Albania and in Romania with specific reference to the Argeș County. The narrative, namely how processes and effects of abandonment have been officially vehiculated over time, is an essential focus of the Albanian and Romanian investigation. The topic is also the focus of the third part of the volume, which deals with the narrative on abandonment. This factor intensely conditions communities' perception of new and old sites, hence their potential for a possible relaunch. The imagery of the abandoned villages is central in the essay by Agostino Petrillo, who traces "fragments" of a sociology of the abandonment, starting from the bias which has affected sociologists since recent times about the rural world as a fragment of "yesterday's world"<sup>9</sup>. Memories and narratives of abandonment – not only the physical

8. See BARAZZETTI in this volume, pp. 262-279.

9. See PETRILLO in this volume, pp. 354-373.



Figure 3. Ferruzzano superiore, Reggio Calabria. A view of the abandoned village (photo A.M. Oteri, 2023).

abandonment, the depopulation but also a «kind of termination of the affective bond with a place»<sup>10</sup> – are still central in the essay by Monica Musolino. In the context of the *Lost and Found* research, the combination of history-based knowledge and narrative of the events is crucial in the idea that a review of the historical dynamics of abandonment, its effects on the territory and communities, and finally, on the modes of narration proves particularly useful for guiding choices in a more conscious and targeted manner.

#### *A structured historical framework against the rhetoric of inner areas*

The destiny of abandoned heritage in marginal regions is a recurrent topic among scholars, politicians and experts. However, even if often quoted in European programmes and agendas, rarely is its recovery central to planning strategies for a given territory<sup>11</sup>. Although cultural heritage in inner areas is considered an indispensable capital for territorial development, its relaunch is often seen as a means to reach purposes that are defined at a different, mainly socio-economic scale. This approach is understandable, as revitalising at-risk abandoned areas must first and foremost set their economic and social recovery as its goal. However, the cultural heritage that these places preserve is often perceived as a fundamental attraction to activate external economies (bold financiers or investors, tourists, etc.), images more than tangible goods rich in history, memories, and indispensable knowledge. Very often, as demonstrated by some of the measures introduced in the National Recovery and Resilience Plan launched by the European government for post-pandemic recovery, it becomes a bait to sacrifice: a process of inventing an image or stereotype (often imported from other sites or models) that is not very attentive to the values and specific characteristics that such heritage preserves. Due to the level of abstraction guiding it, this approach fails to trigger any process of care and re-recognition, which, on the contrary, is fundamental to encouraging place-based programs<sup>12</sup>.

Most of the “rhetoric” on inner areas, which increased after the pandemic, is grounded on a kind of description (mainly a physical description) of these areas rather than on the interpretation and narration of the historical phenomena that have characterised them over time and have defined the current features<sup>13</sup>.

10. See MUSOLINO in this volume, pp. 374-395.

11. ROSSITTI 2023.

12. See MUSOLINO in this volume, pp. 374-395.

13. BERARDI, COPERTINO, SANTORO 2021, s.p.

It is quite a paradox that the more the inner areas are in the spotlight, the more invisible and depopulated they become:

«Those approaching the analysis of these contexts today encounter many difficulties in obtaining a comprehensive view. One of the difficulties [...] is the evident lack of scientific studies on what the inner areas are today. Territories in distress, suffocated by tourism plans, bound to market needs that determine the local excellence and push towards a uniform standard of efficiency for everyone. A narrative that has reduced inner Italy to invisibility»<sup>14</sup>.

Authenticity, identity, and traditions are trapped in a rhetoric which tends to increase municipalisation and isolation of marginal territories and communities rather than relaunch them as repositories of essential resources. Even the programmes and strategies for contrasting depopulation are mostly addressed to the patrimonialization of any physical traces (e.g. built heritage and landscapes) as they would be empty spaces to be filled in for the needs of unreal users<sup>15</sup>.

SNAI<sup>16</sup>, a significant example in the European context of a policy aiming at contrasting depopulation in marginal territories affected by shrinkage and social inequalities, looks at cultural heritage as one of the key resources to foster territorial development. Despite the central role assigned to cultural heritage, in the innovative structure of SNAI<sup>17</sup>, it has been mainly considered as a means to attract tourism and boost economies. The risk of such an approach is to impoverish the complexity and richness of these cultural capitals. Nonetheless, the history of territorial transformations and the study of what remains in marginal areas in terms of physical traces of the past, but also of economic, social, cultural, and memorial values, is vital for planning the future of these areas.

14. RIZZO 2022, p. 32.

15. See the interesting contributions in BARBERA, CERSOSIMO, DE ROSSI 2022.

16. SNAI has been designed and studied since 2009 by the then National Agency for Territorial Cohesion within the European programme and adopted in 2014. It is the most important recent policy in Italy, designed to hinder inequalities in inner areas and contrast depopulation and abandonment in the last twenty years. While acknowledging the limitations and rigidities of SNAI, the concept of the inner area it proposes, from a perspective we could define as “territorialist” (place-based), partially aligns with the premises of the *Lost and Found* research. It is also worth remembering that the National Agency for Territorial Cohesion was abolished in 2023 by the PNRR Ter decree, which transfers its functions (as well as instrumental, financial, and human resources) to the Cohesion Policies Department (Dipartimento per le Politiche di Coesione), within the President of the Council of Ministers (Presidenza del Consiglio dei Ministri). This passage appears to have contributed to the loss of effectiveness of SNAI, hindering the regionalization process that various parties have called for, due to institutional tensions and discontinuities in administrative organization (Bussone 2024).

17. SNAI proposes an important change from the urban-centred model of continuous growth to a participatory practice which implies the involvement of the communities in the relaunch of marginal territories through the reissue of agriculture, the care of agroforestry and hydrogeologic heritage, and the protection of the natural and cultural diversities (see MARCHETTI, PANUNZI, PAZZAGLI 2017 and PARISI 2020, p. 438).

For this reason, the results presented here mainly deal with data collection, interpretation and organisation. However, it is worth saying that such a detailed exploration of the processes and outcomes of abandonment had never been conducted in the Grecanica and Locride areas before.

The research mainly focused on collecting and analysing data at various scales, starting from statistical data related to the settlements studied in the Province of Reggio Calabria<sup>18</sup> (fig. 4). The cartographic and statistical data were then cross-referenced with the findings from archival research and other sources. Investigations into unexplored archives, particularly at the State Archives of Reggio Calabria were extremely helpful<sup>19</sup> (fig. 5). Another direction involved retrieving topographic maps compiled by the British War Office in 1943 at various scales, depicting the territorial situation of the study areas before the floods and post-war natural disasters. To reconstruct the chronicle of natural events, their impact on communities, emergency management in the short and medium term, the political implications of refugee management, and the debate on how to intervene to settle the territories, as well as the processes of relocating settlements with subsequent territorial, economic, and social problems, consulting the periodic, mainstream, and political press all proved immensely valuable<sup>20</sup> (fig. 6). Finally, studying and analysing parliamentary acts and minutes from 1947 to the late 1950s helped reconstruct the political debate at the central level regarding the situation of the territories before the natural events and during the years of government intervention and reconstruction. From the discussions within the committees – the first primarily established to solve the problems of the 1951 Polesine flood and the second and third constituted by Calabrian parliamentarians specifically to discuss and approve the special laws for Calabria in 1953 and 1955<sup>21</sup> – a political debate emerged on the opportunity to relocate those centres considered at risk; a discussion that ended with the approval of special laws sanctioning the relocation of inhabited centres and the hydro-geological and forestry arrangement of the territories.

18. As documented in the appendix to the volume, ISTAT data (analysis period 1861-2011) were collected and organized along with information from other sources (DataWare online; data for the municipalities examined in the following online repositories: ANCI, Atlas of Small Municipalities (2019); Department for Cohesion Policies, Update on SNAI Areas (2022).

19. Particularly, the archival Fond *Fondo Prefettura di Reggio Calabria, Ufficio provinciale di assistenza post-bellica; Ufficio del Genio civile di Reggio Calabria*, the municipal archives in Canolo and Bruzzano and the National Archive in Rome concerning the measures for the 1951 flood and the resettlement of Africo between 1953 and 1956.

20. In particular national and international journals such as «La Stampa», «The Evening Star» and «Il Giornale di Calabria» have been examined, along with political journals such as «Il Popolo», «Avanti» and «L'Unità» and the periodical «Rinascita».

21. See SULFARO in this volume, pp. 202-227.

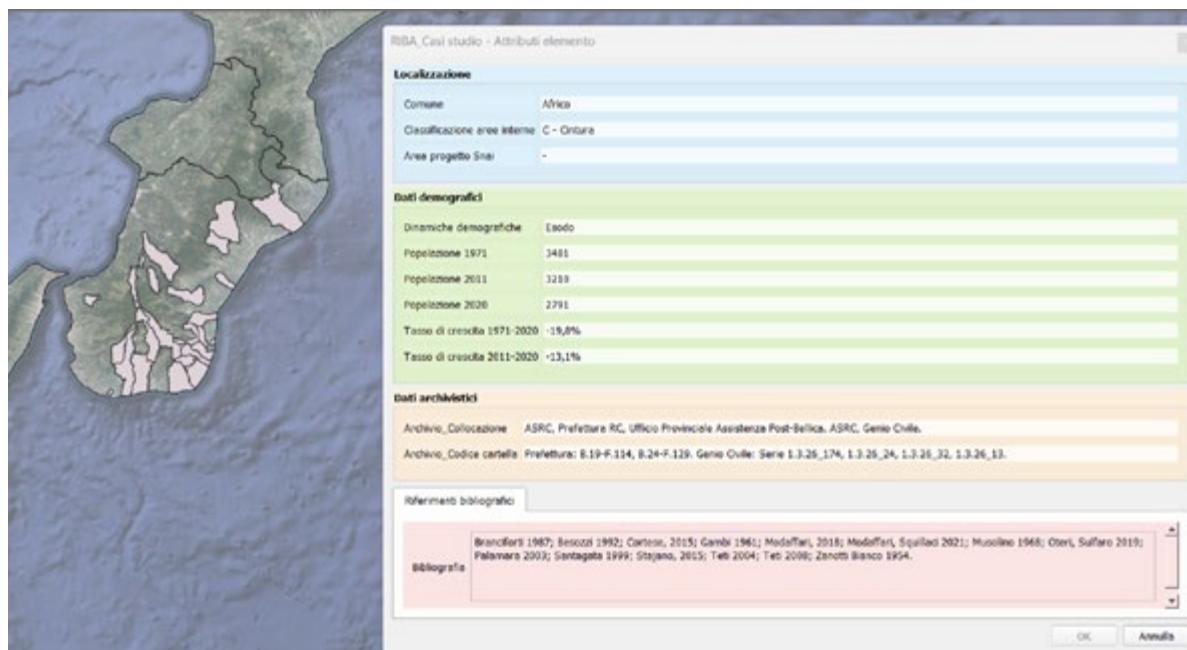


Figure 4. Example of a data sheet referred to Africo. Localization and classification of the small town, demographica data, archival references, bibliographical references (elaboration by C. Valiante and F. Vigotti).



Figure 5. Relocation of Ferruzzano and damage estimate after the flood of 1969 (Ufficio del Genio Civile di Reggio Calabria, State Archive, Reggio Calabria).

Visits to the study areas complemented the on-desk phase. Between May and June 2022, site visits were conducted to acquire field data, produce orthophotos of the sites using drones<sup>22</sup>, and visit abandoned and pretty inaccessible sites such as Africo Vecchio (fig. 7). These visits also provided an opportunity to engage with local administrators and some associations particularly concerned about the fate of these areas, facilitating a valuable exchange for research purposes. In April 2023, a detailed mapping of the Ferruzzano settlement began<sup>23</sup>, which, as mentioned earlier, was chosen as a case study to assess the potential for reactivation of the built heritage.

Statistical, cartographic, regulatory and management data regarding the various emergencies – from the early 1900s – that have influenced the events and outcomes of these places, urban planning tools used to manage emergencies, and the design aspects that emerged (especially regarding new settlements), the narrative of events and their perception by communities through a re-reading of national and local chronicles from those years, parliamentary debate within numerous committees specially appointed by the government to discuss the issue, and so on, were collected and analysed. Reasoning based on data is at the heart of the *Lost and Found* research, with the idea, as mentioned earlier, of helping to build possible strategies to counter abandonment. This task was difficult as the data are fragmented and often contradictory, and the management of these territories by those who administered them at both central and local levels since 1908 has been as non-linear as the data themselves. In this sense, the research highlighted the possible limits of a history-based approach, as it is essential, but, at the same time, it prolongs the timeline of research<sup>24</sup>. This aspect is not irrelevant if the final purpose of such an investigation is to guide local administrations in planning new strategies for hindering depopulation. As is commonly known, the agendas of politicians and local administrators, who frequently must face emergencies and respect the rigid deadlines for accessing national and international funds, do not fit with research timelines<sup>25</sup>.

22. See BARAZZETTI in this volume, pp. 262-279.

23. See SCAGLIA, VALIANTE in this volume, pp. 280-323.

24. Furthermore, the multidisciplinarity of the history-based approach also extends the time of the research as it implies, as we will see in the conclusions, to find and share a common ground for debating data and results.

25. This aspect is one of the questions opened by the research. See OTERI in this volume, pp. 480-505.



Figure 6. Journal collection from the 1950's (elaboration by N. Sulfaro).



Figure 7. Trip to Africo Vecchio from the Italian research group. The scheme shows the difficulties in reaching the site (elaboration by N. Sulfaro).

### *The idea of "inner area" as a premise for history-based approaches*

Grounded on the historical framework, the research then analyses if and why a history-based approach can have a role in defining the strategies for relaunching inner areas rich in cultural heritage<sup>26</sup>. It is important to specify that for a history-based approach, a methodology that focuses not only on the physical effects of the events on territories and settlements but also on communities and their economies, traditions, and cultural habits is intended. In short, it is an approach that looks simultaneously at tangible and intangible effects of a given event over time.

The first problem in focusing on the matter is the idea of inner area in itself or, to be clearer, the idea of "categorizing" inner areas. The definition of what one may define "inner area" is an open question, and scholars and experts who study territories are perfectly aware of the unfeasibility in finding a shared, comprehensive meaning. Since the post-war period, inner areas had been connected to hills and mountains (that in Italy nearly correspond to 60% of the national territory) and have above all been strongly associated to a negative idea of marginality and isolation. However, awareness of the indefinability of "inner areas", and the risks implied in using unreal categories have arisen since the last century. As Manlio Rossi Doria writes in the introduction to the Special project for the inner South (1981)<sup>27</sup> «the idea of "internal area" is a necessary abstraction that operationally lacks meaning»<sup>28</sup>. Even within mountainous or hilly territories, some areas are far from fragile or marginal, possessing high productive values or, conversely, were once prosperous but have now become impoverished and depopulated. «In practical terms, what matters is the individual zone, realistically delimited, not very extensive, with its specific features, its problems, its population, and its past events»<sup>29</sup>. The difficulty in defining what an "inner" area is already emerged in the post-war debate when there was reflection on the idea of describing as "inner" everything that was not coastal

26. In an interesting essay on the application of a historical perspective for small towns and inner areas, Roberto Parisi asks himself, «In what measure can historical research and historiographical debate on the destiny of smaller towns affect the correct application of the territorial model adopted by SNAI?» (PARISI 2020, p. 437, translation by the author).

27. The *Special Project for the Inner South* was considered revolutionary for its time and aimed at strengthening local economies and intellectual forces, both present and traditional. It envisioned, at least in theory, a focus on small widespread interventions, methods of active participation, and processes that today we would define as sustainable (CESARINI 1981, p. 17), a kind of *ante litteram* place-based program. In practice, however, these areas have been often viewed as underdeveloped and, therefore, in need of revitalisation through the economic exploitation of their resources, mainly for tourism purposes.

28. ROSSI DORIA 1981, p. 1 (translation by the author).

29. *Ibidem* (translation by the author).

(a rigid definition quickly abandoned)<sup>30</sup> or, regardless of the relationship with the coast, everything that has remained closed to progress<sup>31</sup>.

Indeed, even at that time, scholars and experts, at least those more attentive to the dynamics of territorial transformations, were aware of the need to break away from the stereotype that associated socio-economic and cultural marginality with physical marginalisation<sup>32</sup>. However, they were equally conscious of the impossibility of defining the meaning of “inner area” only grounding it on historical and cultural criteria. This would have implied the need to confront the immense diversities of the territories and, therefore, the impossibility of defining a single category. Moreover, a definition of this kind would undoubtedly be impossible. It is not by chance that after fifty years and despite the innovative approach of SNAI, the classification in peri-urban, intermediate, peripheral, and ultra-peripheral areas proposed for settlements other than urban poles is not conceived as a historiographical category<sup>33</sup>. On the contrary, it is a technical (and political) distinction grounded on the distance, in terms of space and time, of these areas from the urban poles<sup>34</sup>.

However, as a relevant sign of change, in the view of SNAI, the inclusion among inner areas does not necessarily mean that the specific site is fragile. By overturning the common belief which has significantly influenced national policies since the post-war period, “inner” and “fragile” are not synonymous in the conception of SNAI. On the contrary, «in some areas, some particular capabilities of the stakeholders along with some policy actions, since the 1980s have transformed marginality into

30. FORMICA 1981, p. 43.

31. «Without underestimating the operational opportunity for a more precise delineation, [...] it seems to me that by “inner areas”, we should understand those regions that, regardless of their morphological characteristics and their position relative to the sea, have remained closed to progress and the influences of modern urban-industrial civilization. Essentially based on a subsistence economy, these areas have undergone profound social and territorial alterations in recent decades due to the disruption of old balances that, although founded on poverty, had allowed the survival of their population», *Ibidem* (translation by the author).

32. Such a stereotype is still to overcome today. In a recent article on the «Il Sole 24 ore» the idea that inner areas do not necessarily match with remote and unknown places far from the seaside or that suffer economic discomfort is reiterated. In Italy places like Matera, Termoli and Cernobbio are included among inner areas due to their distance to fundamental services (health, education and mobility), MARRONI 2024.

33. PARISI 2020, p. 437.

34. It is a model based on the distance from the urban pole intended as a centre of services, particularly the three considered vital: health, education and mobility. *Le aree interne. Di quali territori parliamo? Nota esplicativa sul metodo di classificazione delle aree*; [https://www.agenziacoesione.gov.it/wp-content/uploads/2021/01/Nota\\_metodologica\\_Aree\\_interne-2-1.pdf](https://www.agenziacoesione.gov.it/wp-content/uploads/2021/01/Nota_metodologica_Aree_interne-2-1.pdf) (accessed 3 November 2023) (translation by the author).

an asset to enhance, by activating interesting processes of development through the involvement of local communities, being able to hinder depopulation»<sup>35</sup>.

*Local, Regional, and universal history. Which narrative in the history-based approach?*

The issue is of utmost importance for the reflections that follow. Even though it may not be possible to define the category of "internal area" based on historical-cultural or, worse still, identity parameters, it is true that any viable strategy or program aimed at internal areas cannot ignore the study of the specific, historical characteristics of that given area, even before considering the physical ones.

For this reason and given the importance of cultural heritage in fostering development in inner areas, another crucial question is the role of a history-based approach in defining appropriate policies and strategies.

In the case of Italy, SNAI is built on a place-based approach that does not explicitly refer to a history-based process of knowledge of the involved areas<sup>36</sup>. In SNAI – which is not the focus of the following reflections but only a pretext for verifying the importance of the historical dimension in defining proper approaches for the destiny of small towns in marginal areas – the socio-economic and demographical structure of the specific area are the leading indicators to assess the potentiality for the development of a given area, along with its potential in attracting tourism. But these indicators are not sufficient, as well as the nonspecific presence of cultural heritage, to evaluate the potentiality of small and very small towns to be repopulated or definitively abandoned<sup>37</sup>.

Since the 1970s, many studies from historians, economists and geographers have tended to demonstrate that the vitality of a place mainly depends on the awareness of the communities regarding their values and identity; awareness that only a historical reconstruction and reconnections of facts and events can provide. In an interesting study published in 1973, the geographer Massimo Quaini reflected on the uselessness of studies on abandoned small towns if not framed in their natural (and historical) context. He suggested shifting the focus from studying the abandonment of a particular settlement to that of its population: «In reality, the issue of abandoned sites – Quaini writes – does

35. *Ibidem*.

36. There is no intentional idea of excluding the historical perspective from the main phases of SNAI. However, as many times affirmed by the creators of the Strategy, it offers a method: knowledge of the territories where the method needs to be verified must be envisioned and applied by the local communities.

37. ROSSITTI 2023, particularly pp. 5-21.

not have much significance when isolated from its natural context: population, agricultural structures, urban-rural relationships. The very disciplines called upon to study it – archaeology, toponymics, even historical geography – are often more capable of providing information about the birth and life of a settlement than its death»<sup>38</sup>. Furthermore, the Italian scholar emphasises that studies on the history of settlements also do not make sense if approached from a monodisciplinary perspective: «in the case of vanished centres, the conception is reductionist, both in its tendency to emphasise geographic-physical factors (landslides, earthquakes, etc.) and in its limitation in capturing factors related to the chronology of events (wars, etc.) or periods in demographic history (plagues)»<sup>39</sup>. In short, Quaini recognised that «history, much more than geography, can connect abandonments to the transformations that the territorial structure undergoes due to changes in land use, urban-rural relationships, and so on»<sup>40</sup>. Studies on abandonment only produce «inventories of abandoned sites» if not related to the history of the settlement. In the case of Calabria, for example, it is useless to study the history of depopulation without understanding the opposite phenomenon of population settlement<sup>41</sup>. In the case of Calabria, for example, it is useless to study the history of depopulation without understanding the opposite phenomenon of population settlement<sup>42</sup>.

The history of population and depopulation is not the aim of this paper, nor the research presented here. However, whatever the reasons for the abandonment, in Italy, efforts to counter depopulation in inner areas have been spoiled by short-sighted or incomplete visions since the post-war period. Political decisions, particularly for southern regions, have suffered from a shortage of specific knowledge, resulting in policies that failed to grasp the complexities of the situation. Following the war, the prevailing belief was that abandonment was inevitable due to migration towards urban centres driven by the industrialization process.

At best, certain specific and small areas saw encouragement for touristic and handcraft activities. However, the formulation of strategies and proposals, which were strictly centre based,

38. QUAINI 1973, p. 714 (translation by the author).

39. *Ibidem*.

40. *Ivi*, p. 717. See also SANSA 2020.

41. «It is relevant – as Quaini writes referring to the Middle Age – that the study of dying villages cannot be separated from the study of centres that emerged spontaneously or through municipal, lordship, or royal initiatives during the same period and in the same region. This study has so far taken shape as an autonomous theme concerning population history, and at least in Italy, it has predominantly captured the interest of historians (particularly historians of architecture and law historians), rather than geographers», *Ibidem*.

42. GAMBI 1972, p. 109.

overlooked the historical transformations of the affected areas. Mindful analysis of the inefficacy of post-war national policies for hindering depopulation can be found in the presentation of the already quoted *Special Project for the Inner South*, where two primary and opposing tendencies are described: one tendency viewed abandonment processes as unavoidable. At the same time, the other held an unrealistic (and unaware) vision of the territories and their evolution over time. Consequently, these approaches suffered from a lack of knowledge and awareness regarding the areas affected by depopulation<sup>43</sup>. Conversely, the *Special Project* was grounded on the idea that a balanced economic relaunch of these areas would have been possible only by recognizing local communities' right to «organise and develop in their native environment, in their values and cultural identities»<sup>44</sup>. Although innovative and forward-thinking, the idea failed for many political and cultural reasons, but also due to an excess of faith, understandable at that time, in an economy based on industrial development, albeit in a controlled and targeted manner, even for traditionally agriculturally oriented inland areas<sup>45</sup>.

Indeed, the *Special Project* highlighted the importance of investing in local knowledge and culture to strengthen local economies.

The central role of local communities (whether native or new communities) in hindering depopulation – which is also the base of SNAI – implies the knowledge and consciousness of a given place. Indeed, even if quite ineffective in results – at least in terms of increasing the awareness for inner areas and settlements as productive, cultural and civic systems – SNAI is based on a “territorialistic”<sup>46</sup> vision, which is (or should be) place-based, hence grounded on the collective management and care of local resources. In this view, policies and strategies should also be history-based, as “territory” is not an idea but the product of history. Like historical buildings and settlements, the more multi-layered the territories, the more they produce cultural and social values<sup>47</sup>.

43. ROSSI DORIA 1981, p. 11.

44. CESARINI 1981, p. 17 (translation by the author).

45. PARISI 2020, p. 441.

46. The term refers to a specific vision born in Italy around the 1970s by scholars from different disciplines who share the idea of territory as a common good in its historical, social, cultural, environmental, and productive complexity. For this reason, they propose a humanistic approach to a place-based knowledge of territories as an alternative to the levelling tendencies of globalization; [http://www.societadeteritorialisti.it/wpcontent/uploads/2013/05/110221\\_manifesto.societ.territorialista.pdf](http://www.societadeteritorialisti.it/wpcontent/uploads/2013/05/110221_manifesto.societ.territorialista.pdf) (accessed 15 December 2023).

47. TETI 2018, p. 192.

Once the importance of history-based approaches in preserving heritage at risk of abandonment in inner areas is assessed, another crucial question concerns the main "features" of a possible historical process.

Historians tell us that the recent history of our country, mainly the post-unification period, is characterized by continuous attempts at standardization of the diverse peripheral areas by the "centre," as demonstrated by the economic policies of the last century alone. The "peripheries", which cling to their localities, often resist these attempts; "small homelands" react by reaffirming roots and traditions (sometimes invented) in response to generalizations and flattening<sup>48</sup>. This ambiguity risks confusing the heritage of collective memories, which are diverse and constantly evolving, with rigid identity claims and significant resistance to change. Regardless of whether one looks at the problem from the perspective of the centre or the periphery, the risk of falling into the "rhetoric of tradition"<sup>49</sup> is always present, with undeniable repercussions on the processes of memory construction and, consequently, on the methods of caring for the tangible and intangible heritage that is claimed to be uncontaminated.

In this regard, it is helpful to consider the suggestion coming from other fields, such as history and geography, to replace words like "identity" and "collective memory" – concepts that are difficult to define – with others like "production" and "construction of locality"<sup>50</sup>. These concepts encourage a dynamic and conscious examination of the past of these places, relying not so much on transmitted history but on the "real" history, that is to say, on the practices of activating resources that have characterized events, people and sites over the centuries, as well as the knowledge connected to them<sup>51</sup>. Indeed, if such an approach is valid for understanding the historical changes in a territory, for example, from forest to pasture, and the social implications these transformations have had and could still have for the involved communities, why not extend it to the rich, widespread architectural heritage that characterizes our inner areas?

From a methodological perspective, it would be necessary to base knowledge processes on local history, which inevitably involves comparative history<sup>52</sup>. It teaches us to highlight peculiarities and differences (the "localities," precisely) rather than common traits. Therefore, it is not a matter of

48. ZANNI ROSIELLO 2017, p. 69.

49. VAROTTO 2021, p. 201.

50. APPADURAJ 1996; see also on the matter TORRE 2011.

51. MORENO 1990, p. 12.

52. ALLEGRETTI 2017, p. 28.

deploying a "topography of sources," but rather a "topography of phenomena"<sup>53</sup>. As historians tell us, it is an analytical approach that reassesses the specificities and discontinuities of local space to be placed at the base of processes of care and revitalization. It is impossible and even improper to define the boundaries between "locality" and "universality" with such an approach.

In the introduction to the third edition of the volume *Economia e società nella Calabria del Cinquecento*<sup>54</sup>, Roberto Galasso reflects on the impossibility of defining a border between local and non-local dealing with the history of rural areas, but not only. Variety and continuity are two aspects that hinder human attraction to simplification and generalization of events and processes, softening the border between what is local history and what is or can become universal history. The locality or universality of a given historical event does not depend on the place where it happens (a small village or an urban centre). On the contrary, it depends on the qualitative dimensions of the event «that can make the history of a village or a suburb as interesting as that of a metropolis, as they may reveal significant elements of an era, a structure, a world, an experience, a logic or, in short of a historical event»<sup>55</sup>. In the case of Calabria, particularly the studied area, the abandonment of small and very small villages after the 1950s hydro-geological events can be considered paradigmatic for the consequences on local communities (the trauma of leaving their native sites and the loss of confidence and identity in the new ones), economy (the end of the rural world), territory and heritage (the abandonment of land and urban fabric)<sup>56</sup>. The historical dimension of the event, and the long-term effects on the socio-economic and cultural structure of the region and southern Italy goes beyond the locality and becomes global. On the other hand, historians demonstrate that transformations are not uniform in periods of slower growth or economic downturns, even within the same regional context. On the contrary, even during crises, certain regional vocations and traditions consolidate, ensuring opportunities and potentialities for the future<sup>57</sup>. From this perspective, a history-based approach also has this ambition: without generalizations or simplifications, it attempts to grasp connections or influences, moving beyond "localism" and contemplating strategies that, if not universal, at least lay claim to a broader foresight. Interesting studies demonstrate how in given conditions, for example after

53. TORRE 2011, p. 13.

54. GALASSO 1992<sup>3</sup> (translation by the author).

55. *Ivi*, p.12.

56. See SANSA, pp. 90-105, MAREGGI, pp. 152-201, and SULFARO, pp. 44-89, in this volume.

57. GALASSO 1992<sup>3</sup> (translation by the author).

an earthquake, inhabitants' reactions are similar (e.g. resistance or resignation) even in different territories<sup>58</sup>; namely, a local event can become paradigmatic. Most of the contributions in this volume demonstrate the exemplarity of the local events, both those that analyse the phenomena from a historical and sociological perspective and those that look at them through the lens of planning and architectural preservation<sup>59</sup>.

#### *History-based approaches and “vitality indicators”. Some reflections on the potentiality of architectural heritage in inner areas*

The research has ultimately another goal: showing that even if there are specific reasons for abandonment and, eventually, resettlement – whether in Calabria, Romania or Albania – a history-based analysis of the territorial, social, cultural, and economic effects, including the narrative generated further, is essential to address a possible future repopulation prospective and reuse or, conversely, a definitive abandonment.

An interesting study on the Central Italian Apennines, after the earthquakes that repeatedly hit that area between 2016 and 2017, demonstrates how important a conscious knowledge is to plan the relaunch of territories and communities ripped asunder by negative events<sup>60</sup>. The *Cantieri mobili di storia. Nei paesi del doposisma: un Progetto itinerante tra passato e presente*<sup>61</sup> is a project which deals with the idea of placing the enhancement of cultural heritage at the core of local communities to hinder depopulation and abandonment. The initiative has been conducted in the form of «a long journey back in time, in an attempt to recover the foundational features of the Apennine civilization in Central Italy, from which economic forms, social balances, and the very vitality<sup>62</sup> that allows it to

58. CIUFFETTI 2019.

59. See SANSA, pp. 90-105, MAREGGI, pp. 152-201, SULFARO, pp. 44-89, and MUSOLINO, pp. 374-395, in this volume.

60. CIUFFETTI 2019, p. 22.

61. The *Cantieri mobili di storia* were conceived within the project *New Development Path for the Marche Apennines after the Earthquake* from a collaboration between the Macerata Institute of History and the RESpro - Rete di storici per i paesaggi della produzione (Network of Historians of Productive Landscapes). The project goals were to discuss possible strategies for the relaunch of damaged sites with the local communities, which had not been involved in the political decisions for the reconstruction and, at the same time, to place an up-to-date interpretation of historical processes as the focus for the rebirth, *Ivi*, p. 13.

62. For the “vitality” of a given place, the complex set of productive activities, traditions, and civic awareness of a given community, still present or latent in a given territory, is here intended.

resist despite phases of crisis and decline, extend well beyond the boundaries of the 19<sup>th</sup> century»<sup>63</sup>. The reflection can be extended to marginal areas in general and implies that the historical approach to studying local territorial systems cannot be the same, not only in Italy, as that adopted in the 20<sup>th</sup> century, which primarily focused on big towns and their essential role in the economic and cultural development of the country. Conversely, this kind of study should enhance the vitality and productivity of inner areas in the pre-industrialized era and highlight the complex relationship between the general economic growth of a given area or country and the local resources, including their evolution over time, a process that primarily implies a new historical interpretation of what a resource is<sup>64</sup>.

In the case of Calabria, perhaps it is helpful to start from a consideration by Galasso, who describes it today as in the past, «a land with challenging geography, but not without a strong historical characterization»<sup>65</sup>, and emphasizes that «the lack of any economic boost in the 16<sup>th</sup> century was to weigh heavily on its future, but it did not clip the wings of this vitality, to which, for better or for worse, its fate is still entrusted»<sup>66</sup>.

Although the research presented here focuses on events from the mid-20<sup>th</sup> century onwards, when economic crisis and depopulation seemed to reach a point of no return, the historical investigation underlying the research effectively confirms, at least in the studied areas, that perhaps the vitality mentioned by Galasso is not lost but rather forgotten. Before Galasso, Lucio Gambi reflected on the inner vitality of the people from Calabria: «The human nature of Calabria, in its common and stronger traits, is [...] a picture of poverty. However, its spirit is today animated – in certain places – by firmness and impetus that indeed do not easily show themselves [...] as they are not coordinated, nor coherent, nor brought together up to now, and are sometimes still enmeshed in paltry rivalries»<sup>67</sup>. He recognised a "fecund energy" in Calabria because «in recent decades a stronger dynamism of

63. CIUFFETTI 2019, p. 22 (translation by the author).

64. CALAFATI, SORI 2004, p. 8.

65. GALASSO 1992<sup>3</sup>, p. 30.

66. «Il mancato "decollo" del secolo XVI avrebbe pesato gravemente sul suo futuro, ma non avrebbe tarpato la spinta di questa vitalità, alla quale, nel bene e nel male sono pur sempre rimesse le sue sorti». *Ibidem* (translation by the author).

67. «Il volto umano della Calabria, nei suoi segni più forti o più comuni, è [...] immagine di povertà. Ma il suo spirito è animato oggi – per lo meno in diverse zone – da vigore e iniziativa, che però non si manifestano facilmente [...] poiché rimasero fino a noi poco coordinati, non coerenti e non fusi, e a volte impigliati in meschine rivalità»; GAMBI 1972, p. 529.

displacement has been revealed in its population: a dynamism at first somewhat fatalistic and not autonomous»<sup>68</sup>.

The vitality of a given area, as emerges from historical studies, is the premise to envision possible futures.

From our point of view, mountains, pastures, rivers, but also settlements and cultural heritage are the resources which, taking advantage of the suggestions from economic historians, characterize a given territory, intended here as «one of the most effective means for preserving and transmitting material and immaterial factors for development over time»<sup>69</sup>. Therefore, looking at the territory as an agent factor, an input<sup>70</sup>, the research studies the productive background of the studied area, the reasons for its crisis, the impact of abandonment on people and settlements (including new settlements)<sup>71</sup>, territorial transformations after earthquakes and floods, and analyses of what remains in terms of production, traditions, and communities' awareness. It also looks at the physical remains which include analyses of the urban fabric and its main feature<sup>72</sup>, but also – at a territorial scale – the complex system of roads, paths and mule tracks that ensured connections between inner and “external” areas<sup>73</sup>. What the research tried to highlight, although being aware that the results here presented are only the first step of a longer journey still to be undertaken, is the very nature of what we are talking about. Through a specific focus, the research intends to bestow a name on objects and places: not “landscape” nor “nature”, not even (or not only) the aseptic sum of the studied settlement’s characteristics. The historical perspective of research embraces the idea that territory is not the sum of individual, sometimes abstract, factors (identity, *genius loci*, etc.), but rather the result of a sedimentation of long-term economic, productive, and cultural processes that include social practices<sup>74</sup>.

68. *Ivi*, p. 527.

69. SORI 2002, p. 173 (translation by the author).

70. *Ivi*, p. 165.

71. See MAREGGI in this volume, pp. 152-201.

72. See the analyses conducted on the small settlements of Ferruzzano Superiore, whose results are described and interpreted in Scaglia, Valiante in this volume, pp. 280-323.

73. See MAREGGI, ROMBOLÀ in this volume, pp. 126-149.

74. BORTOLOTTI 2009, pp. 7-8; see also OTERI 2019, particularly p. 175.

Giving a name to things that «one can indicate with a finger»<sup>75</sup> has been the main task of the research, trying to assess the relationships which still exist among them, those that do not exist anymore, those that one could recover, and those that are irreversibly lost: «People who come from the town call it nature – says a young mountain man to a friend from town in *Le otto montagne* by Paolo Cognetti – It is so unreal in your mind that also the name is unreal. In the mountain, we call it wood, pasture, river, rock. They are things that one can indicate with a finger. Things that one can use. We don't even give them a name if one cannot use them, as they are useless»<sup>76</sup>.

The awareness of such a problematic framework is indispensable so as to demonstrate that the feasibility of a possible relaunch which starts from territory (as an input) cannot only be based on vague aesthetical or historical values nor, as some local strategies sometimes seem to suggest, a generic ecological perspective (the attraction for uncontaminated and authentic places) or on the viewpoint of sustainable and responsible tourism that find an appealing reference to the “wilderness” of a given area<sup>77</sup>. The relaunch of a given territory depends mainly on the potential of those values (historical, aesthetical, ecological, economic, cultural, and anthropological values and features) of being updated<sup>78</sup>.

Economic historians currently debate whether the dynamicity of a given local economic system is reversible, that is, if «a territory that went through a period of significant development can regress to an underdeveloped area»<sup>79</sup>. In this case, the reference is to the industrial and proto-industrial economies, and of course, the topic is not the focus of this paper. However, these theories are quoted here as they present the idea, undoubtedly shareable, that to assess the potentiality of a given area, also regarding the possibility of transforming and renovating its productive potentiality, it is necessary to verify the latent vitalities, namely if something of the original productive and cultural substratum remained. Another premise to the following reflections is the idea, unanimously shared among scholars<sup>80</sup>, that cultural heritage and its historical and environmental context are inseparable.

75. COGNETTI 2018, p. 140.

76. «Siete voi di città che la chiamate natura. È così astratta nella vostra testa che è astratto pure il nome. Noi qui diciamo bosco, pascolo, torrente, roccia. Cose che si possono indicare con un dito. Cose che si possono usare. Se non si possono usare un nome non glielo diamo perché non serve a niente», COGNETTI 2018, p.140 (translation by the author).

77. In this sense, the idea expressed by Ciuffetti on the Central Apennine is shared here, and it can be extended to the studied area; see CIUFFETTI 2019, p. 22.

78. BONFANTINI 2016, p. 9.

79. SORI 2002, p. 173.

80. MIONI, PEDRAZZINI 2005, p. 9.

The two assumptions are of the utmost importance in dealing with built heritage as, after many unfortunate experiences in the field of architectural preservation, maybe the still prevailing idea should be changed that recovering a historical settlement, whether abandoned or not, is merely a physical and functional matter. On the contrary, the technical and practical aspects are strictly related to broader socio-economic and cultural strategies, and the success of such operations is not measurable only in terms of technique (a high-quality restoration design). Improvement of the quality of life, even a small improvement, connected to the specific intervention in that area is the unit to measure the achievement of planned actions<sup>81</sup>.

The history-based approach has been, at the very least, helpful in understanding that the "vitality indicator" of a centre, whether medium, small or very small, is not exclusively tied to the presence of historical-monumental heritage. Therefore, it will not be resolved solely by the physical-functional revival of such goods, the number of inhabitants, the location of the settlement (hill, plain, coast), or proximity to more important centres – all individually important factors but not sufficient on their own. In some way, recovery works if it intercepts a latent vitality, which we might define as "historical" or traditional. It functions if the ultimate goal is not just the rebirth of "monuments" and/or "minor" architecture (simple restoration), perhaps to attract passing tourists: these recoveries should not only be "physical" but also have a "civil" impact (not only technical-functional restoration but also the management of the use of such heritage for civil purposes). Essentially, these recoveries, rebirths, or whatever they may be called, need to become forms of territorial governance in the broadest sense<sup>82</sup>. The *Lost and Found* research does not propose the measurement of such a "vitality indicator" in the studied area. It highlights, and it is not an irrelevant result, that the relaunch of a given territory is possible if the traditional and cultural features that emerged from the history-based analyses match with the local communities' capability to rethink their past under a symbolic but also political and cultural aspect. In commenting on the contents of the book *Riabitare l'Italia*<sup>83</sup>, Alessandra Broccolini<sup>84</sup> reflects on the fact that architects and urban planners often see small centres in rural areas as «empty places that need to be filled, where innovation and development must be brought in with the perspective that one must find solutions. The prevailing idea is that these areas represent an opportunity not because something local makes them such but because they are places

81. *Ivi*, particularly p. 14.

82. *Ivi*, p. 17.

83. DE ROSSI 2018.

84. BROCCOLINI 2019, s.p.

where one can experiment freely, where the 'void' can be filled [...]. However, little is said about the fullness that historically existed or still exists, or what has locally been transformed from what was there»<sup>85</sup>.

Looking at the "fullness," among other things, would help overcome stereotypes (depopulated centres as the «immobile paradise of tradition»<sup>86</sup>) and instrumental uses of these places and their traditions, removing them from history and confining them to a timeless dimension<sup>87</sup>. In short, other perspectives suggest that a history-based approach would help find a third way between place-blind reuses and complete abandonment. The new strategy should be grounded on the assumption that the opportunity for these places comes from what they guard, from their "locality"<sup>88</sup>, rather than considering them empty spaces for experimenting with new and unfeasible designs.

As particularly evidenced in Sonia Pistidda's essay, although the research does not go as far as defining the measure of the "vitality indicator", it nonetheless attempts to explain which factors could help determine a unit of measurement for the potential for reuse. After all, the digital map of Ferruzzano is constructed precisely with the idea of correlating physical data related to the settlement and its preservation with other information (statistical, cartographic, archival, as well as economic and productive, etc.) that could assess its propensity for potential reuse. Indeed, the case was chosen because, among the small centres analysed, it is the one that, on paper (accessibility, state of preservation of the settlement, proximity to the coast, presence of some human activities, etc.), shows the most significant potential for actual repopulation.

Finally, the research does not aim to prove at all costs that revitalization of these abandoned places in Calabria is possible. On the contrary, excluding the case mentioned above of Ferruzzano, the research seems to lean towards an impossibility of reuse, thus contrary to the rhetoric of return that pervades much of the narrative about marginal areas. Indeed, a proper interpretation of historical processes sometimes demonstrates that the end of a given productive, cultural and civic system matches that specific site's end, and any attempt to relaunch it risks failing<sup>89</sup>.

85. *Ibidem* (translation by the author).

86. *Ibidem*.

87. OLMO 2022.

88. TORRE 2011.

89. TETI 2020.



Figure 8. Despite the complete abandonment and the state of ruin in which the small village lies, it is a place that seems ready to welcome anyone who wanders through its deserted alleys (photo F. Vigotti, 2023).

If we look at abandonment from an anthropological perspective, the solution to the problem is not necessarily repopulation. As Mauro Varotto suggests<sup>90</sup> and with an optimistic perspective, an abandoned town is open to everyone (fig. 8); abandonment is not the very end of everything, and abandoned places themselves can suggest new forms of use, new modes of dialogue if appropriately interrogated, even focused on maintenance and care. In essence, it is a response to those who advocate innovation at any cost but also to those convinced followers of "abandonology" (a science, but perhaps it would be more appropriate to say an ideology) who profess physical renunciation of the reuse of abandoned villages in favour of the ideal (or idealistic) recovery of ancestral experiences. Whatever the perspective – abandonment or reuse – the method presented here is grounded on the idea that a place does not belong to those who founded it, own or inhabit it. It belongs to those who take care of it<sup>91</sup>.

90. «Abandonment is, by definition, an open space [...] (from the French *à ban donner*). Therefore, abandoning does not mean merely or solely multiplying "no man's lands" but "making available to all"», VAROTTO 2020, p. 64.

91. The quotation by Daniela Poli is in MUSOLINO in this volume, pp. 374-395.

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CAUSES, PROCESSES, POLITICS



# LOST AND FOUND

Processes of abandonment of the architectural and urban heritage  
in inner areas. Causes, effects, and narratives (Italy, Albania, Romania)



Edited by Annunziata Maria Oteri

ArchistoR  
EXTRA



## L'abbandono e il trasferimento dei paesi nel sud della costa ionica in Calabria

Nino Sulfaro (Università degli Studi *Mediterranea* di Reggio Calabria)

*I frequenti e spesso devastanti eventi sismici verificatisi soprattutto nella parte meridionale dell'area ionica della Calabria tra il XIX e il XX secolo determinarono notevoli esodi, sia in termini di emigrazione che di migrazione, sia di spostamento all'interno della regione; inoltre, il dissesto idrogeologico, con alluvioni, frane e smottamenti, specie negli anni Cinquanta del Novecento, influenzò spesso in modo significativo le dinamiche insediative e la relativa struttura del territorio. L'esodo fu all'origine del fenomeno dei cosiddetti "paesi erranti", basato sulla divisione tra gli antichi insediamenti in collina o in montagna e i nuovi insediamenti sorti nel tempo sulla costa o in aree bonificate. A volte l'antico insediamento è abbandonato, a volte è abitato solo in parte, a volte il centro storico e quello nuovo distano solo pochi chilometri, a volte la distanza è notevole. Tuttavia, questo fenomeno è dovuto anche ai "fatti della storia" e, più specificamente, alle risposte che le persone – politici, abitanti, esperti e intellettuali – hanno dato a quei problemi nel corso del tempo. In questa prospettiva, il presente articolo cerca di far emergere come i fattori ambientali si intersecano e si sovrappongono a questioni sociali, culturali, economiche e politiche, spesso a livello nazionale.*

# LOST AND FOUND

Processi di abbandono del patrimonio architettonico e urbano nelle aree interne. Cause, effetti, narrazioni (Italia, Albania Romania)

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# The Abandonment and Relocation of Small Towns and Villages in the Southern Ionic Area of Calabria

Nino Sulfaro

In 1961, the geographer Lucio Gambi, dealing with the dynamics of settlements in Calabria, highlighted a heavy increase in internal mobility from the mountainous hinterland toward the coast, which occurred between the unification of Italy (1861) and the post-World War II period<sup>1</sup>. According to Gambi, this phenomenon marked the end of a centuries-long historical phase of a gradual retreat of native communities up to the perched and rugged reliefs of the region, far from more exposed, coastal areas, and, therefore, with an economy based only on pastoralism and poor agriculture<sup>2</sup>.

It is very difficult to define the triggering factor in this process, as some factors are deeply interlaced. In truth, the process of abandonment of mountainous and inner areas had started in the second half of the 19<sup>th</sup> century, involving all the South of Italy; then, it continued throughout the 20<sup>th</sup> century, leading to an unstoppable depopulation of the “highlands” also in the rest of Italy<sup>3</sup>. For some scholars, the crisis corresponds mainly with the decline of pastoralism based on transhumance which, till that moment, played a main role in the mountain economy. This decline, in turn, was due to the

1. GAMBI 1961; on this argument see also TINO 2002.

2. GAMBI 1961, p. 520.

3. TINO 2002, p. 17.

reclaiming of coastal plains affected by malaria and the development of intensive agriculture<sup>4</sup>; at the same time, the eradication of malaria, in itself, represented an incentive for urban development along the coast during the 20<sup>th</sup> century. In addition, we should mention that the decline of pastoralism was inevitably accompanied by the waning of some other activities and domestic industries exploiting local resources, such as textiles, wrought iron, pottery production, etc., due to the development of road networks and railways and to the consequent increasing competition of imported products, even if often from within the same region<sup>5</sup>.

The above-mentioned issues, amongst others, are fundamental in extending the theme of abandonment and relocation of small towns and villages in Calabria – generally associated only with migration and natural disasters in a direct cause-effect relationship – to a wider frame. Apart from some recent contributions on the theme aimed at focusing on the causes of the abandonment of small towns in Calabria<sup>6</sup>, we should observe how the discourse has been mainly developed through the analysis of the effects, paying particular attention to the social and anthropologic aspects and considering earthquakes and floods as triggering factors<sup>7</sup>. The frequent and often devastating earthquakes that occurred especially in the southern part of the Ionic area of the region between the 18<sup>th</sup> and 19<sup>th</sup> centuries certainly caused considerable exodus, both emigration, migration, and movement within the region; moreover, hydrogeological instability, with floods, landslides, and mudslides, especially in the 1950s, often significantly influenced the settlement dynamics and the relative structure of the territory. However, the configuration of this area is mostly due to “the facts of history”<sup>8</sup> and, more specifically, to the answers that people – politicians, inhabitants, experts, and intellectuals – have given to those problems over time.

In this perspective, the present paper tries to bring out how the environmental factors intersect and overlay social, cultural, economic, and political issues, often at the national level<sup>9</sup>. More precisely, in the period between 1861 and 1961, this phenomenon occurred in several small towns and villages in the southern part of the Ionic area and led to the still current system concerning the coexistence of both old towns and new settlements: sometimes the former is abandoned, sometimes it is only

4. Between 1908 and 1938, the number of livestock in Calabria went from 640000 to 490000; *ivi*, pp. 31-32.

5. *Ivi*, p. 33.

6. See OTERI, SCAMARDÌ 2020.

7. See TETI 2004; TETI 2008.

8. See GAMBI 1965.

9. *Ibidem*.

partially inhabited, sometimes the old and the new towns are only a few kilometres away, sometimes the distance is quite far<sup>10</sup>. This dynamic, particularly evident on the Ionic side of the region, had consequences which were significant both in terms of the physical organization of the territory and in terms of socio-economic dynamics. Not only was there an increase in population in the existing towns along the coast, through a simple transfer of people from one place to another<sup>11</sup>, but there were also consequences in terms of territorial transformations, through the construction of new towns, and changes in the use of the land. Over those one hundred years, it is possible to recognize some salient phases of the process: the late 19<sup>th</sup> century; the first half of the 20<sup>th</sup> century; the 1950s and 1970s. These periods are of different duration, characterized by different historical events – such as the consequences of the Unification of Italy, the two World Wars, and the Post WWII –, influenced by diverse socio-political and economic trends, and marked by some catastrophic events. However, they are united by the intertwining of some common issues, and, above all, they represent the main steps that slowly led to the end of life in inner areas in Southern Calabria.

### 1. *The late 19<sup>th</sup> century: malaria as an obstacle to transferring toward the coast*

The area between *Capo dell'Armi* to the South-West and the *Stillaro* river-bed to the North-East includes many different geographical areas, partially overlapping, and identified according to different names, such as the so-called *Grecanica*, (or *Bovesia*), and *Locride* areas, and part of the so-called *Serre*, today all belonging to the Metropolitan City of Reggio Calabria<sup>12</sup>. It corresponds, with good approximation, to the Ionian side of the province of Calabria Ulteriore Prima, one of the administrative subdivisions of Calabria, in the 19<sup>th</sup> century, during the Kingdom of the Two Sicilies (fig. 1). In the aftermath of Italian unification, the scientist Giuseppe Antonio Pasquale, in his survey “*Relazione sullo stato fisico-economico-agrario della Prima Calabria Ulteriore*” (a report on the physical-economic-agrarian condition of *Prima Calabria Ulteriore* district)<sup>13</sup>, described this part of Calabria as «a virgin field

10. On the theme of the so-called “paesi doppi” (double towns), see TETI 2008.

11. MARTINOTTI 2011, pp. 133-138.

12. In this area the Byzantine cultural heritage and, above all, Greek language contaminated with the native dialect, are all still present. It includes small towns that underwent complex relocation between the 19<sup>th</sup> and 20<sup>th</sup> centuries, such as Africo, Ferruzzano, Brancaleone, Roghudi, and Pentedattilo; other villages and towns preserved their communities in their older settlements, such as Palizzi and Bova; other villages, such as Gallicianò and Roccaforte del Greco, are dramatically depopulated.

13. Calabria Ulteriore Prima was the name of the province of Reggio Calabria within the Reign of Two Sicilies between 1817 and 1860; see COPPOLA 1997.

far from any progress», as it was a sparsely populated area with a very poor economy<sup>14</sup>. According to the first national census in 1861, this part of the region, considering data regarding the province of *Calabria Ulteriore Prima*, registered a decrease in population, probably due to a first phase of emigration; then, the population remained stable until the aftermath of World War II<sup>15</sup>. The general data for Calabria in 1861 show how the population density values were, on average, high in the medium-altitude areas, while the lowest values, except for the area of the Strait of Messina, were in the coastal areas; around 66% of the population lived in the former areas (8% of whom lived above 750 m asl)<sup>16</sup>.

In truth, an increase in population with a high birth rate and a decreasing mortality rate was registered earlier, between the 18<sup>th</sup> and 19<sup>th</sup> centuries, due to a general improvement in the health of the population in Calabria<sup>17</sup>. However, that increase, together with the development of some local productive activities – such as the commerce of silk and citrus fruit –, did not represent a significant need for new lands and urban settlements along the coast<sup>18</sup>.

One of the main reasons for the sparse population along the coast may be realistically due to the presence of malaria over nearly the entire coastal territory, which represented an obstacle to new settlements near the sea<sup>19</sup>. In 1882, Senator Luigi Torelli published the “Carta of Malaria in Italy” through which the dramatic situation of Southern Italy emerged. In particular, it shows how the disease was endemic along the coasts of Calabria (about 738 km), along its most important rivers, and within the valleys of its wide streams (fig. 2)<sup>20</sup>.

In order to better understand the reasons for so massive a spread, we should underline how Calabria, and especially the southern part of the region, presents the particular complexity of the orographic and hydrogeological conformation of the territory, with a predominance of mountain and

14. PASQUALE 1863, p. 23. It was a survey conducted for “Regio Istituto d’Incoraggiamento alle Scienze naturali di Napoli” (Royal Institute for the Encouragement of Natural Sciences in Naples) in 1861, in order to describe the conditions of pastoralism, agriculture, and industries in the southern Italian provinces.

15. *Censimento* 1864; on the Italian national census see ALFANI *et alii* 2012. On the theme of demography in Calabria, among others, see CARCHEDI, VITIELLO 2014; TINO 2002; PLACANICA 1993; SORI 1990; GAMBI 1965.

16. See TINO 2002.

17. PLACANICA 1993, p. 326.

18. The increase in population also led to an imbalance between population and resources; as a consequence, the impossibility of supporting the demographic burden, in terms of regional economy, in turn, led to emigration, especially toward the United States of America; see PLACANICA 1993.

19. *Ivi*, p. 326.

20. Malaria was prevalent in 52% of the Calabrian territory (7,877.31/15,080.32 km<sup>2</sup>); TAGARELLI 1997, pp. 117-119.

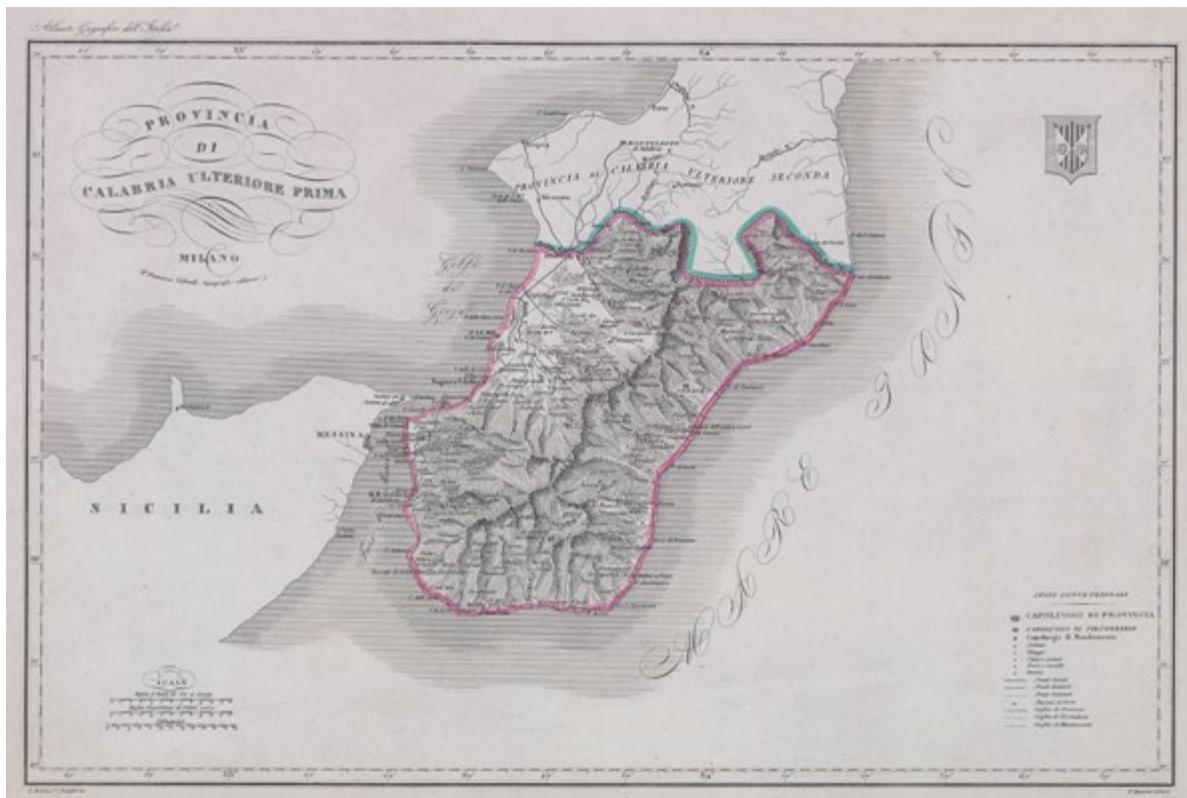


Figure 1. The Province of Calabria Ulteriore Prima, one of the administrative subdivisions of the region, in the 19th century, during the Kingdom of the Two Sicilies (Provincia di Calabria Ulteriore Prima, *Atlanta Geografico dell'Italia*, Dr. Francesco Vallardi Editore, Milano 1868).

In the next page, figure 2. The spread of malaria in Calabria. Particular from the *Carta dell'Italia compilata a cura dell'Ufficio Centrale del Senato incaricato dell'esame della legge intorno alla malaria d'iniziativa del Senato stesso, 1882* (Map of Italy compiled by the Central Office of the Senate responsible for examining the law on malaria on the initiative of the Senate itself, 1882).



hill areas<sup>21</sup>; this complexity is also accompanied by a variety of pedo-climatic zones, marked by the presence and activities of inhabitants over the centuries<sup>22</sup>. The element that unquestionably left its mark on territories is the disappearance of forests which had covered the entire region since ancient times, and which had undergone a slow, extensive, and documented destruction. Deforestation due to economic uses of lands caused a “spiral” of degradation of most of the area, with violent erosion phenomena, which modelled Calabrian landscape with the well-known seasonal rivers (*fiumare*), gullies and bare slope areas<sup>23</sup>. The earthquake of 1783 aggravated this situation: its tremors caused massive landslides that obstructed the course of rivers, creating numerous swamp formations, and thus, between 1783 and 1787, 215 lakes were formed throughout the territory affected by the earthquake<sup>24</sup> (fig. 3). This hydrogeological disorder, together with terrible hygienic conditions, favoured a persistent epidemic of malaria, which persisted for centuries and caused a very high number of deaths<sup>25</sup>.

In addition, the Ionic area presented several natural factors fostering the spread of the virus: physical features included a rich hydrographic reticulation due to the nature of soils which contributed to increasing the hydrogeological disorder, thus creating many swamps, which is a favourable environment for the *Anopheles* mosquito<sup>26</sup>. According to Francesco Genovese, a Calabrian doctor who dedicated himself to studying malaria in the province of Reggio Calabria<sup>27</sup>, the presence of marl and clay in the soil made many lands impermeable and created outcrop water in the steepest points. These accumulations of stagnant water were insufficient for the population's needs but were sufficient to maintain a state of paludism even around many small towns<sup>28</sup>. In addition, marl and clay transported

21. Calabria is a region characterized by a series of mountain groups that occupy, together with the hill system, almost the entire territorial surface (48.7% is represented by mountains and 49.2% by hills), leaving very little space for the scarce and narrow coastal plains (9%), even though the coast extends for about 780 km.

22. COLONNA, GUIDOBONI 2000, pp. 283-286.

23. *Ivi*, p. 284.

24. GENOVESE 1924, pp. 14-15. On the hydrogeological disorder due to the earthquake in 1783, see PLACANICA 1982; more in general, on the 1783 earthquake see PRINCIPE 1976; PRINCIPE 1985; On the abandonment regarding the 1783 earthquake see MUSSARI 2020.

25. This situation continued to favour the spread of malaria which was eradicated only with the arrival of DDT with the American army at the end of the World War II.

26. See GENOVESE 1921.

27. GENOVESE 1924; on Genovese's works and activities see DOUGLAS 1915, pp. 420-431; ZANOTTI BIANCO 1925.

28. This condition was typical of the hills that slope from Caulonia to the sea, between Camini and Riace down to the



Figure 3. Map of Calabria with the lakes formed after the 1783 earthquake (*Carta geografica della Calabria con i laghi formatisi dopo il terremoto del 1783, di Stile Ignazio, Cataneo Aniello - sec. XVIII*).



Figure 4. Particular of a map of the Ionic Southern area of Calabria with toponyms that testify to the creation of swamps along the coast (Carta Austriaca del Regno di Napoli di Rizzi Zannoni, 1847).

downstream also made the sandy alluvial fan on the shore impermeable, creating swamps along the coast. The toponomy of the entire area testifies to this phenomenon: there were many places with names evoking marshy contexts, such as *giunghi*, *giungheto*, *canneto*, (reeds, cane thicket), *pantano* (quagmire), and *lacchi* (lakes)<sup>29</sup>. Some of these places still maintain old toponyms referring to malaria, such as the area of Pantano Piccolo (small quagmire) between Bruzzano and Brancaleone and Pantano Grande (big quagmire), in the terminal stretch of the Bruzzano riverbed<sup>30</sup> (fig. 4).

In addition, among other anthropic factors for malaria, there was the very poor living conditions of the rural people: along with Basilicata, Calabria was the most underdeveloped region of the

sea; GENOVESE 1924, p. 9.

29. Two areas named *Lacchi* were between the La Verde riverbed and the small town Bianconovo and between Bianco and Bovalino; *ivi*, pp. 10-11. A description of the places affected by malaria along the Ionic coast is in DE STEFANI 1884, pp. 10-11.

30. The two Laws for reclamation in 22nd of March 1900 and 7th of July 1902 provided weirs and embankments, which were built in 1913; GENOVESE 1924, p. 38.

country after unification. As is well known, the so-called "Inchiesta Jacini", a report by the Lombard deputy Stefano Jacini in 1885, highlighted the horrendous living conditions of Southern Italy, to raise awareness among the ruling class and start a process to reduce the strong disparities between North and South<sup>31</sup>.

The construction of the railway in Calabria was one of the elements aimed at improving the living conditions of the population: in addition to the economic benefits due to the construction of the new infrastructure, the government's intent was to reclaim the lands crossed by the railway network; however, it paradoxically represented a further negative anthropic factor in the permanence of malaria. On the one hand, we have to underline that the construction of the railway, in itself, promoted the movement of a trickle of people from inner areas toward the coast<sup>32</sup>; the works lasted from 1866 to 1875, but only at the end of the 19<sup>th</sup> century did the railway drive urban development: the first villages began to rise near the coast, with the station square as the main urban feature<sup>33</sup>. On the other hand, in some cases, works for the construction of the railway along the Ionic coast improved the condition of the hydrogeological disorder, through the creation of points of drainage along the railway ballast; in others, they aggravated the situation, through the excavation of the so-called "*cave di prestito*" (extemporary quarries) with the aim to extract materials for the embankments which were then abandoned and in which the rainwater stagnated. In a letter dated 17 May 1870, a local representant of the area of Amendolea River reported to the Prefect of the Province of Reggio Calabria on the serious health damage caused by the construction of the railway, because the natural rainwater conduits, which flowed into the sea, were buried and no care was taken to restore them. Furthermore, in the same area, numerous "*cave di prestito*" had been excavated where the rainwaters had stagnated. Despite the many complaints, nothing had still been done in 1876, when the Mayor of Condofuri pleaded with, and requested, the Prefect of Reggio Calabria to fill in the four "pestilential" swamps which were located near the Amendolea River<sup>34</sup>. The Law for Reclamation of 1906 provided for interventions on the Amendolea swamps; however, the quagmires Vivò, San Carlo,

31. See CARACCIOLI 1973.

32. PLACANICA 1993, p. 325. The first section of the railway, from Reggio to Lazzaro, was inaugurated on 3<sup>rd</sup> of June 1866, followed on 1<sup>st</sup> October 1868, by the opening of another section up to Bianconovo; FORESTA 2018, p. 124. On the history of railways in Calabria, see also COSTANZO 2005.

33. FORESTA 2018, p. 124.

34. GENOVESE 1924, pp. 35-36.

and Limmara (from the Greek *limne*, swamp) were still along the river in 1924<sup>35</sup>.

Obviously, there was an inverse relationship between the incidence of malaria and the altitude of towns. In 1911, the district of Gerace was the least populated area of the province of Reggio Calabria and the most affected by the disease. All the small towns and villages in this area were affected by malaria, apart from Agnana, Bivongi, Martone, and San Giovanni di Gerace, which are located above 200 m, Canolo, above 480, and Staiti, above 500mt. Ferruzzano, located above 468 mt, was not affected by malaria; however, during the Easter of 1920, following heavy rains, a large landslide occurred on the north-eastern side of the town; the debris blocked the mouth of the valley so that a very large swamp formed in a location called Le Gorne. This swamp caused a serious malarial pandemic among the inhabitants. ANIMI, the National Association for the interests of Southern Italy (ANIMI), led by Umberto Zanotti Bianco had the pond/swamp drained at his own expense and opened an anti-malarial clinic in the town<sup>36</sup>.

Other anthropic factors for malaria included deforestation, which also contributed to hydrogeological disorder: between the 18<sup>th</sup> and 19<sup>th</sup> centuries, widespread deforestation started due to the demand for wood, both as an energy resource and building material<sup>37</sup>. In a more general perspective, apart from reclaiming the land and other issues connected with malaria<sup>38</sup>, in the second half of the 19<sup>th</sup> century the idea emerged whereby the presence of a healthy forest in the mountains guaranteed hydro-geological equilibrium in the valleys. It became the *leitmotiv* of all the legislative provisions from 1877, the year of the first Italian national law on forests<sup>39</sup> (fig. 5). For some decades, this idea was also accompanied by the debate between, on the one hand, those few politicians from mountain areas who wanted to defend autonomous decision-making processes and the survival needs of local populations and, on the other hand, those politicians, economists, and technicians who wanted to develop the hydroelectrical use of water<sup>40</sup>. According to the latter perspective, at the beginning of the 20<sup>th</sup> century, mountains started to be identified more and more as a resource

35. *Ivi*, p. 37.

36. *Ivi*, p. 112. On the activities carried on by ANIMI see ZANOTTI BIANCO 1960; MANADORI SAGREDO 2011; PESCOLOLIDO 2011.

37. Forested land passed from 48% of the territory in 1830 to 8.4% in 1911; PLACANICA 1993, pp. 331-332; see also GAMBI 1965. On the theme of land use and the history of woods and forests in Southern Italy between the 18<sup>th</sup> and the 19<sup>th</sup> centuries, see also SANSA 2000; PALMIERI 2000.

38. In 1910 Giustino Fortunato argued that the only way to eradicate malaria was the reclaim; GENOVESE, p. XIII.

39. See Law on Forest 20<sup>th</sup> of June 1877, n. 3917 (*Legge Forestale*).

40. PICCIONI 2002, pp. 127-128.

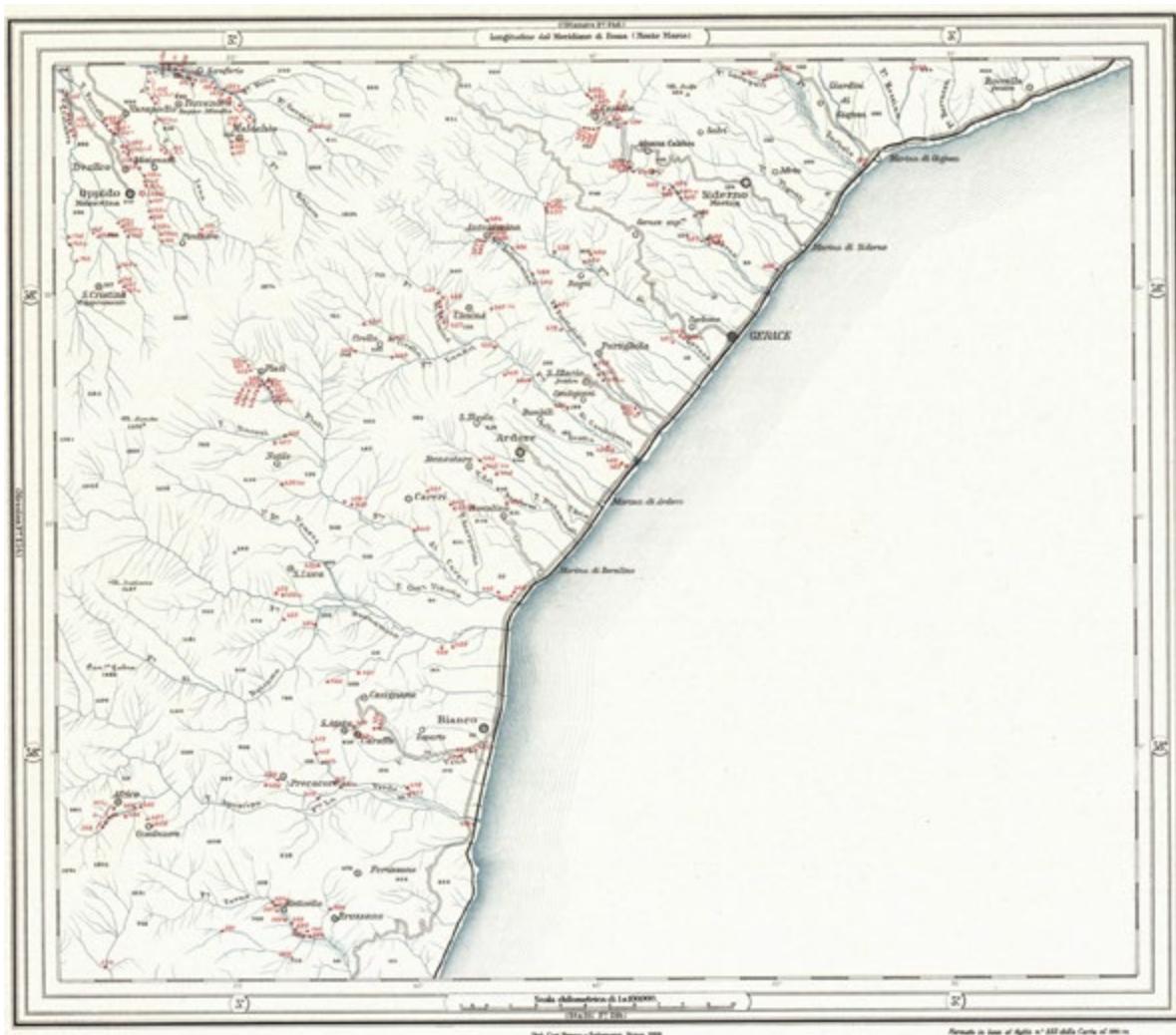


Figure 5. The hydrographic conditions of Calabria at the end of 19th century (*Carta idrografica del Regno d'Italia, 1887*).

made up essentially of forest and water and, consequently, were seen as a piece of a wider mosaic aimed at satisfying the needs of the plains and urban areas: reforesting and regulating water meant guaranteeing safety against landslides and floods, but also producing a great quantity of cheap electricity, and assuring water to irrigate cultivations on the plains<sup>41</sup>. The process of abandonment of the inner area in Calabria could start.

## *2. The first half of 20<sup>th</sup> century: earthquakes and geological issues as an impetus to abandon the internal settlements*

Despite malaria remained an obstacle in transferring people from inner areas to the coast and it was eradicated only after WWII thanks to the introduction of DDT by the Americans, the first half of the 20<sup>th</sup> century represented a key period for abandonment processes. Since the first years of that century, in fact, it was almost always necessary to undertake emergency interventions dealing with the continuous and violent flood events due to deforestation, and many catastrophic earthquakes, such as the one in 1905 in the Central Tirrenian Calabria, the two in 1907 and 1908 in Southern Calabria, which caused victims and damage to settlements. Therefore, hydrogeological disorder and seismicity ended up intertwining not only in terms of effects but also in measures taken by governments.

In this context, progress in the field of geology – and the role of geologists and technicians involved in territorial development, such as mining and railway engineers – emerged forcefully, addressing choices and strategies that concerned the abandonment of inner areas and the location for new settlements.

We should underline how interest in the geology of Calabria had already begun to appear after the 1783 earthquake when this catastrophic event had wide relevance in the international scientific community<sup>42</sup>. The most illustrious chronicler of the earthquake is undoubtedly Deodat de Dolomieu, who traveled through the region a few months after the earthquake. He surveyed the territory, highlighting its particularities, criticizing the work of most Neapolitan scientists, such as Sarconi and Vivenzio, who forcibly tried to correlate earthquake shocks with electrical phenomena and meteorological conditions<sup>43</sup>. Dolomieu gave the tragic event worldwide resonance, so much so

41. *Ivi*, p. 129. On the hydroelectricity in Southern Italy see, among others, CIUFFETTI, MOCARELLI 2021; RIENZO 2000.

42. CONSOLE, FABBI, PANTALONI 2018.

43. Dolomieu was criticized in turn by local scholars, who accused him of neglecting evidence and making flights of

that it was mentioned in *Principles of Geology* by Charles Lyell in 1835, where it was defined as a one-of-a-kind earthquake, even though it was (at the time) neither the strongest, nor the longest, nor the most destructive in history. However, it was the first strong earthquake to occur in a place frequented by a sufficient number of people with scientific knowledge to be able to describe both the event and its effects in a systematic and modern way<sup>44</sup>.

The 19<sup>th</sup> century saw a vast improvement in the knowledge of geology in Calabria through the first attempt to categorise rock formations chronologically by Leopoldo Pilla, the first geological maps drawn up by Rodolfo Armando Philippi and Pierre Alexandrowitsch De Tchihatcheff, and, above all, the detailed studies by Giuseppe Seguenza, at the end of the 1870s<sup>45</sup>. In the same years, many studies were aimed at supporting the construction of the railway in Calabria: the engineer Vincenzo Rambotti was commissioned by the Ministry of Public Works to study the geological sections for the construction of the Reggio-Taranto railway section<sup>46</sup>; unfortunately, he was affected by malaria and died at the age of thirty in 1877<sup>47</sup>. The geologist Carlo De Stefani, one of the founders of the Geological Italian Society, can be considered the father of geology in Calabria: in 1876 the Ministry of Public Education urged him to carry out a geological excursion in Calabria. The result of his work, which saw him «busy for 14 hours a day for 45 days», is a detailed "Geological map of southern Calabria" at 1:50,000 scale in 23 sheets<sup>48</sup>. In addition, in 1882, Emilio Cortese, an engineer of the Royal Geological Office, began to focus on geological features in Calabria, in the context of the construction of the railway, identifying two large almost perpendicular faults that cut the southern sector of the region, whose existence has also been confirmed in the most recent literature<sup>49</sup>. In 1891 the geological survey of Calabria was completed and only needed general revision work; however, the geological map was not published due to «the lack of large-scale topographic map without hatching»<sup>50</sup>: the geological knowledge of the region was more advanced than the general knowledge of the territory.

fancy, so much so that Vivenzio himself (1788) responded to the French naturalist by refuting his theories; *ivi*, p. 120.

44. *Ibidem*.

45. See PILLA 1837; PHILIPPI, 1842; TCHIHATCHEFF 1842; SEGUENZA 1879.

46. RAMBOTTI, NEVIANI 1888.

47. CONSOLE, FABBI, PANTALONI 2018, p. 123.

48. *Ibidem*. See also DE STEFANI 1884.

49. CORTESE 1883; CONSOLE, FABBI, PANTALONI 2018, pp. 123-124.

50. *Ibidem*.

After 1783, perception of the geological risk in Calabria was also spread by the landscape descriptions and the iconography of Calabria conveyed by the Grand Tour travellers, where the suggestion of ruins is very strong<sup>51</sup>. The so-called *flagello* (scourge) changed the face of modern Calabria, modifying its landscape, settlement system, roads, etc., and spreading the image of a dangerous, wild region, not only due to banditry but also from a natural point of view, which persisted throughout the 20<sup>th</sup> century<sup>52</sup>. In 1915, the English traveller Norman Douglas, author of one of the most famous travel books in Calabria, stressed the image of geological disorder in his description of Aspromonte, the mountains in the southern part of the region: «It is an incredibly harsh agglomeration of hill and dale, and the geology of the district [...] reveals a perfect chaos of rocks of every age, torn into gullies by earthquakes and other cataclysms of the past»<sup>53</sup>. The same perception remains in the 1950s, as the writer and journalist Guido Piovene described Calabria as the “strangest” of the Italian regions: «It would seem that the debris of different worlds has collapsed together here; that an arbitrary divinity, after having created the continents and the seasons, enjoyed breaking them to mix the shiny fragments»<sup>54</sup>.

However, it is above all in the sphere of politics and, in particular, among parliamentary chronicles, where it is possible to find the centrality of the theme of geology and the perception of risk. In 1904, the historian and politician Giustino Fortunato underlined the anthropic and natural factors that contributed to “Italy’s Southern Question” and defined Calabria as *un vero sfasciume* (“totally wrecked”) due to its geological disorder<sup>55</sup>. This impressive image, then often mentioned in the form *sfasciume pendulo sul mare* (“wreckage hanging over the sea”) was particularly impressive and seems to have influenced the political discourse on Calabria’s issues throughout the 20<sup>th</sup> century<sup>56</sup>.

This general perception helps to explain the extraordinary measures undertaken by the national government after the 1907 earthquake in Ferruzzano and, above all, after the disastrous earthquake in the Strait of Messina area in 1908. These earthquakes hit most of the Ionian area of Calabria, bringing together the geological instability due to seismic activity and the hydrogeological instability due to deforestation, seeing a massive relocation process of towns and villages as the main solution

51. See MENOZZI, MANIACI 1992; SULFARO 2016.

52. See PLACANICA 1992.

53. DOUGLAS 1915.

54. PIOVENE 1957.

55. FORTUNATO 1904, pp. 9-11.

56. The expression by Fortunato was also used, among others, by Manlio Rossi-Doria; see ROSSI-DORIA 2005.

to the problem. In truth, the relocation of towns was a trend that had been already tested in the process of reconstruction after the earthquake of 1783, when the engineers appointed by the Bourbon government had the task of identifying new sites for the location of the new modern settlements<sup>57</sup>. However, while for them the criteria for the selection of new sites were the nature of the soil, the easy water supply, the proximity to the coast or public roads, and the proximity to the destroyed villages<sup>58</sup>, the processes of relocation of the settlements carried on by Italian Governments, more than 100 years later, were not established through general criteria and delegated to the local administrations.

Law n. 445, 9<sup>th</sup> July 1908 (Provisions for Basilicata and Calabria) can be considered the first national measure aimed specifically at resolving the damage caused by earthquakes and hydrogeological instability through relocations. It had a very wide scope, such as developing public works, such as roads and other infrastructures, regulating rivers and rainwater, compensating owners of pastures to be reforested and incentivizing sylviculture, and distributing chinchona-based products to treat malaria; above all, it was the first Italian law that concerned the relocation of those small towns which had been seriously damaged by earthquakes and hydrological instability or were undergoing the risk of being damaged. Part 4 of the Law provided that, in the light of the level of damage and risk, some towns and villages were to be repaired and made safe, while others were to be moved to other locations<sup>59</sup>; however, it made relocation the main solution to the problems, as it allocated a much larger amount of money for transferring inhabitants and building new towns in different places, in comparison to the funds allocated for repairing and rehabilitating damaged towns<sup>60</sup>. The

57. In February and March of 1783, about 5 tremors reached the 11<sup>th</sup> degree of the Mercalli scale, several hundred of less intensity. The victims, overall, were between 30,000 and 50,000. On the theme of relocation of towns after the earthquake of 1783, see PRINCIPE 1976; PRINCIPE 1985; ZINZI 1994.

58. The last criterion was considered important not only for the proximity of the old fields to be cultivated but above all for the procurement of building materials: especially in those cases of the poorest new houses, the materials, such as bricks, stones, and wood, were recovered from the houses destroyed by the earthquake. This last criterion was considered important not only for the proximity of the old fields to be cultivated but above all for procuring building materials. Especially in the cases of the poorest new houses, the materials, such as bricks, stones, and wood, were recovered from the houses destroyed by the earthquake.

59. The option of relocation had been already anticipated in Law n. 255, 25<sup>th</sup> June 1906, (Provisions for Calabria), aimed at allocating funds for the damage provoked by the earthquake in 1905. In particular, Article 39 provided that, having consulted the Royal Commission, the king's government, for reasons of safety and hygiene, could order and have carried out, at its own expense, the demolition of buildings located in places recognized as permanently dangerous, and determine, after consulting the local Townhall and the Province offices, the new locations to rebuild the new towns. On the earthquake of 1905 in Calabria, see ALFANI 1909.

60. The Law (article 62), provided L. 1,200,000 for rehabilitation works of damaged towns listed, L. 1,530,000 for buying

two lists attached to the Law indicated no towns to be repaired or rehabilitated (Table D), while it reported 62 small towns and 27 hamlets to be moved (Table E) in Calabria. Between 1908 and 1916, 36 settlements to be moved were in the province of Reggio Calabria (fig. 6)<sup>61</sup>. On the Ionic side of the province, several small towns, such as Roghudi, Staiti, Brancaleone, Bruzzano, and Ferruzzano; the list was continually updated, with additions and deletions, throughout the 20<sup>th</sup> century and beyond<sup>62</sup>. Just to give some examples, in 1928 Brancaleone was taken away from the list, for no apparent reason; in 1938, Mammola, Staiti, and San Giovanni di Gerace, were the same; Ferruzzano remained on the list as long as the law remained in effect.

The inclusion or not on the list of towns to be moved was established by a Royal Commission<sup>63</sup>; for each town included in the list, the civil engineering offices had to draw up two plans, one of which indicated the old area to be abandoned and the other the location where the new town was to be built. In addition, also in cases of partial relocations, they could indicate which public buildings needed to be moved, taking into account the number of inhabitants and the distance from other towns where there already were those public buildings. A list reporting the identification of the houses to be abandoned was to be published in the municipal register for a month; then, within two months, the owners had to decide if they should move or not to the new location. Apart from the procedures for relocation<sup>64</sup>, Law n. 445 provided that the owners would have to demolish their houses if located in dangerous places within ten years; after that deadline, the local administration

areas where build new towns, and L. 3,200,000 for building roads, squares, town halls, churches, and new schools in the new towns.

61. Towns to be relocated in the province of Reggio Calabria between 1908 and 1916 (extracted from "Table E - attachment to Law n. 445, 9<sup>th</sup> July 1908 and updates"). In 1908: Bagaladi, Bianco (hamlet Pardesca), Bianco (hamlet Zoparto), Brancaleone, Bruzzano, Caraffa del Bianco, Caridà, Casignana, Caulonia, Condofuri, Ferruzzano, Mammola, Melicuccà, Oppido Mamertina, Palizzi, Precacore, Rogudi, San Pier Fedele and the hamlet Garopoli, Sant'Agata di Bianco, Sant'Eufemia d'Aspromonte, San Giovanni Gerace, Sant'Ilario dello Ionio, San Lorenzo, San Roberto and the hamlet San Peri, Scido, Sinopoli Inferiore, Staiti, Terranova Sappo Minulio and the hamlet Scroforio; in 1911 (Law n. 311, 13<sup>th</sup> April 1911): Calanna, Melito Porto Salvo (hamlet Pentedattilo), Maropati and the hamlet Tritanti; in 1913 (Law n. 1023, 11<sup>th</sup> July 1913): Cataforio and the hamlet Mosorrofa; in 1916 (Decree n. 299, 2nd March 1916): Caulonia (hamlet Ursini).

62. The last update of Law n. 445 was in 2002 (Decree n. 302, 27<sup>th</sup> December 2002); the last update of the list (tables D and E) was in 1941.

63. It was the same Commission designated by Law n. 255, 25<sup>th</sup> June 1906.

64. The law provided a 100 mq area to each owner of a house to be abandoned and to each householder resident in the settlement to be moved (Article 67); the Municipal Council, taking into account the declarations of the owners and any complaints, had to establish the new locality and draw up the list of owners and householders to whom the areas are to be assigned (Article 69).



Figure 6. The settlements to be moved in the province of Reggio Calabria according to Law n. 445, 9<sup>th</sup> July 1908 (Provisions for Basilicata and Calabria). In red are the small towns listed in Table E in 1908; in orange in 1911; in yellow in 1913 and 1916 (elaboration by the author).

would have demolished the buildings again at the owners' expense, possibly deducting the value of the demolished materials if acquired.

The earthquake of the 28<sup>th</sup> of December 1908 consolidated the policy of relocation of smaller towns and villages as the main solution for emergencies<sup>65</sup>. Evaluations on pre-existing buildings were quite absent in these studies: apart from some well-known damage estimates, such as the one by the geologist Giuseppe Mercalli<sup>66</sup> and the one by Mario Baratta<sup>67</sup>, which referred to the absence of anti-seismic technologies, to architectural typologies and the height of buildings in the two main cities, Messina and Reggio Calabria, the analysis in the small towns and villages damaged in Calabria were often reduced to prejudices on building quality. Guido Alfani, seismologist and meteorologist of the Ximenian Observatory of Florence, was one of the first to write about the 1908 earthquake. He underlined "the miserable state of buildings in Calabria", basing essentially on the effects that earthquakes had historically always had on it: «These are houses in general with a very problematic resistance even in normal times, which unfortunately, cease to be houses and begin to be tombs at the first impact of a slight earthquake»<sup>68</sup>.

Venturino Sabatini, an engineer of the Royal Mining Office, and then geologist of the Royal Geological Office, analyzed the effects of the earthquake on the ground (now called co-seismic) correlating them to the damage to buildings, anticipating the principles of seismic zoning currently in use by the scientific community, and highlighting that the specific characteristics of the ground increased the action of the earthquake. In the analysis of the "buildings conditions", like Alfani, he underlined the "deplorable construction techniques" still used at that time in Calabria, when the art of building had instead progressed so much elsewhere<sup>69</sup>. However, Sabatini focused more specifically on the characteristics of the buildings in the southern Ionic Area, through a survey that brought out the co-responsibilities of foundations, masonries, and roofings typologies in the devastating effects of the earthquakes on the existing buildings<sup>70</sup>. Above all, he focused on the process of segmentation of sandstones, a geological formation that characterizes most of the inner areas of the Ionic Southern Calabria and which, even if it seemed stable terrain, showed great instability in many sites, such as

65. On the 1908 earthquake, see VALTIERI 2008.

66. MERCALLI 1909.

67. BARATTA 1910.

68. ALFANI 1909, p. 7.

69. SABATINI 1909, p. 83.

70. *Ivi*, p. 84-100.

Bruzzano and Ferruzzano, where these formations were reduced to a mass of blocks<sup>71</sup>.

In addition, Sabatini supported the Government in identifying the most suitable areas for reconstructing the destroyed settlements destroyed. In 1909, a Royal Commission – composed exclusively of geologists and mining engineers – was appointed to designate the most suitable areas for reconstructing the towns hit by the earthquake and other previous ones<sup>72</sup>. The work carried on by experts pushed the government to adopt a series of legislative measures through which it attempted to plan and regulate the reconstruction. All the municipalities listed in the Royal Decree n. 595, 3<sup>rd</sup> August 1909 could adopt a reconstruction master plan by entrusting it to a specific master plan office directed by a civil engineer, regardless of the number of inhabitants. Among the small towns in the province of Reggio Calabria included in the list, there were many Ionic coast centers, such as Bruzzano and Ferruzzano<sup>73</sup>; despite some of these small towns suffering serious damages due to the earthquakes in 1907 and 1908, their relocations were not done in the first half of the 19<sup>th</sup> century.

Bruzzano has been probably the first case along the Ionic coast of a small town abandoned and relocated (fig. 7)<sup>74</sup>. The new town, Bruzzano Zeffirio, is an example of a new approach aimed at improving safety from natural disasters: located on a plain, it has a regular road network and was built following anti-seismic criteria established by Decree n. 595/1909 (figs. 8-9). It is interesting to note that the old settlement was not demolished after the abandonment, as required by Law n. 445/1908: the ruins of the buildings are still there, as in all cases of relocation (fig. 10).

In this perspective, the most significant example was represented by Ferruzzano: it was partially destroyed by the earthquakes in 1907 and 1908, and the inhabitants were obliged to

71. See also SABATINI 1908, a previous work by Sabatini focused on studying the slopes in Calabria. On the surveys by Venturino Sabatini see Sulfaro on this issue.

72. The Royal Commission was composed of: Pietro Blaserna (physicist), Angelo Battelli (physicist), Eugenio Caputo (soldier), Raffaele de Cornè (engineer), Carlo De Stefani (geologist), Paolo Marzolo (soldier), Luciano Mazzuoli (mining engineer), Annibale Riccò (astronomer), Luigi Palazzo (physicist), Giovan Battista Rizzo (physicist), Torquato Taramelli (geologist). See *Relazione della Commissione Reale 1909*.

73. The list included 108 towns and small towns in the Province of Reggio Calabria. Among the small towns in the Southern Ionic area, apart from Bruzzano and Ferruzzano, were included: Africo, Agnana, Anoia, Antonimina, Ardore, Bagaladi, Benestare, Bianconovo, Bivongi, Bova, Bovalino, Brancalene, Camini, Canolo, Caraffa del Bianco, Cardeto, Careri, Casignana, Caulonia, Ciminà, Condofuri, Gerace Marina, Gerace Superiore, Gioiosa Ionica, Grotteria, Laganadi, Mammola, Martone, Melito Porto Salvo, Monasterace, Montebello Ionico, Palizzi, Pazzano, Placanica, Plati, Portigliola, Precacore, Riace, Roccaforte del Greco, Roccella Ionica, Roghudi, San Giorgio Morgeto, San Giovanni di Gerace, San Lorenzo, San Luca, Santa Agata del Bianco, Siderno, Staiti, Stignano e Stilo.

74. Russo 2002, pp. 88-90.

live in emergency barracks or to move to other existing villages; anyway, the old town was never completely abandoned and a new town was never actually built, despite it was in the lists of small towns to be moved attached to all laws, provisions and measures concerning the relocation emitted during the 19<sup>th</sup> century<sup>75</sup>. Ferruzzano was the epicenter of a strong seismic event (9<sup>th</sup> degree of the Mercalli Scale) on the 23<sup>rd</sup> of October 1907. According to official estimates, the deaths due to this earthquake were 167 in the entire area, 158 of which in Ferruzzano (approximately 8% of the town's population); there were also around 90 injured, 50 of which in Ferruzzano. This earthquake was also the first natural disaster after the Italian unification with a national resonance: the head of Government Giovanni Giolitti created a National Committee that would give assistance to the population, deal with the recovery of the homeless, and collect funds from public administrations and private. Other tremors continued to plague the area for several months; one year later, as already mentioned, a more devastating earthquake plagued the area of the Strait of Messina, investing also Ferruzzano, where no repairs of the 1907 earthquake had been already made. There were no victims, but 350 out of 400 buildings (87,5%) collapsed or were considered to be demolished; 25 buildings were heavily damaged and the rest had little damage<sup>76</sup>. In the subsequent two years, other minor earthquakes occurred in Ferruzzano: the intensity of the tremors was mild, but the effects on the already damaged buildings were still disastrous. The removal of rubbles took some decades; in the meanwhile part of the inhabitants lived in barracks in an emergency camp located in Saccuti, an area close to the old destroyed center; others started to move spontaneously near the coast. In addition, the old small town was slowly back to life, through some spontaneous interventions aimed at reconstructing, transforming, and repairing the built fabric<sup>77</sup>.

### *3. The 1950s: the request for modernity and the end of life in inner areas*

In 1950, the Government promulgated Law n. 646, 10<sup>th</sup> August 1950, which created a fund for extraordinary works of public interest in the South of Italy (so-called *Cassa per il Mezzogiorno*). During

75. In this perspective, the anthropologist Vito Teti speaks about a "neverending abandonment" in the case of Ferruzzano; TETI 2008, p. 410.

76. See MERCALLI 1909.

77. See SULFARO in this volume, pp. 202-227.



Figure 7. Bruzzano in 1920s (image courtesy of Carmelo Altomonte).



Figure 8. Map of the new town of Bruzzano Zeffirio, Reggio Calabria.



Figure 9. Bruzzano Zeffirio, Reggio Calabria (photo N. Sulfaro, 2022). On the next page, figure 10. Bruzzano, Reggio Calabria. The ruins of the old settlement (photo N. Sulfaro, 2022).



the decade 1950-1960, it introduced a general plan for the execution of works aimed specifically at the economic and social progress of southern Italy, coordinating it with the programs prepared by the local and national public administrations. The plan concerned organic complexes of works relating to the arrangement of mountain basins and related waterways, reclamation, irrigation, and agricultural transformation, also depending on land reform programs, mobility, aqueducts, sewers, and plants for the enhancement of agriculture and tourism.

During the post-World War II period governments looked at emigration in Southern Italy as the price to pay for the reconstruction of the country and the huge funds received from the Marshall Plan<sup>78</sup>. Unlike in the decades before when internal and external mobility was mainly connected to structural causes, in this period, alongside economic motivations, cultural motivations also emerged: urban and metropolitan contexts began to conquer people's imagination, with the search for "industrial work" perceived as an expression of modernity<sup>79</sup>.

The traditional rural culture and farming conditions were increasingly perceived by the protagonists of the rural world as unsuitable for the needs of modern life. This is the effect of a complex process that, in Calabria, the anthropologist Luigi Lombardi Satriani calls "deculturalization" implemented by the culture of profit to the detriment of the subordinate classes, to destroy their cultural resilience and thus make them homogeneous and consumerism dependents<sup>80</sup>. In this perspective, Lombardi Satriani speaks also of "mythicization of elsewhere", in a context in which the 'here', well known, is refused in order to construct a mythical image and descriptions of different lifestyles<sup>81</sup>.

It is undeniable that the living conditions of the inhabitants of many small towns in inner areas were still poor in Southern Italy. As is well known, in July 1950, Alcide De Gasperi, head of the Italian government, became aware of the inhumane conditions of people living in Basilicata during a visit. He used an expression already formulated by the Communist Party secretary Palmiro Togliatti after a famous visit to the same places in 1948, indicating the Sassi, the oldest part of the city of Matera, with the caves and hovels inhabited by men, women, children, and animals, as "a national shame"<sup>82</sup>.

78. GRECO 2013, pp. 151-152; see also DE CLEMENTI 2010.

79. GRECO 2013 p. 153; on the argument see also BEVILACQUA 1998 and BEVILACQUA 2001.

80. LOMBARDI SATRIANI, MELIGRANA 1987, pp. 201-203.

81. *Ivi*, p. 202.

82. On May 17, 1952, the "Special Law for the rehabilitation of the Sassi" (n. 619) was promulgated. It established seven villages and districts to be built, to transfer the farmers and artisans living in 2,472 caves and houses declared uninhabitable and established the recovery of 859 partially habitable houses in the Sassi, for a total cost of 4 billion lire.

In some small towns and villages in Calabria, the living conditions were similar to the Sassi, even before the floods of the 1950s arrived, which worsened the situation. «Scratched walls, old wooden desks, a worn map and braziers to warm the bare feet: this is the elementary school of Africo»: a photo by the photojournalist Tino Petrelli appeared in the weekly magazine *L'Europeo* in 1948 with this caption, which later became famous and republished by many other newspapers, including abroad. That image, over the years, has become the realistic representation of the poverty, abandonment, and isolation of the South of Italy. The photo, together with others that documented further glimpses of the small town of Africo, accompanied the famous reportage by the journalist Tommaso Besozzi "The streets are too narrow to open an umbrella". Some years later, in 1959, the book "Tra la perduta gente" (*Among the Lost People*), by Umberto Zanotti Bianco was published: written between 1916 and 1928, it is a collection of short stories concerning a report on Africo by the author and Manlio Rossi Doria<sup>83</sup>. Africo was an isolated mountain small town in a landslide area, had a very high mortality rate, especially among children, had no doctor, and had a very high rate of illiteracy. Most of its land was unsuitable for cultivation; the nutrition of the inhabitants was insufficient regarding quality and scarcity of food.

In 1951 several floods plagued Italy from North to South: among the most devastating was the Polesine flood in November 1951 which was a catastrophic event that involved a large part of the provinces of Rovigo and Venice, causing about 100 victims and more than 180,000 people were left homeless, with many social and economic consequences<sup>84</sup>. One month previously, between the 12<sup>th</sup> and 18<sup>th</sup> of October 1951, a heavy flood plagued the Aspromonte area of the lower Ionian Sea. It was one of the most catastrophic floods that ever broke out in southern Calabria causing death and destruction. The amount of water that fell in just over a hundred hours was remarkable: 1770 mm of rain, an amount higher than the annual average. Many streams overflowed, flooding various villages along the coast and inner areas and causing landslides. Road and telegraphic communications were cut off in over fifteen locations; the railway line along the coast was interrupted in 22 points, the Ionian coast road (the current S.S. 106) was interrupted in several points due to the destruction of several bridges; many small towns and villages were isolated; along the coast, connections were possible only by sea. The local economy collapsed, citrus groves and crops were destroyed, and hundreds of families of farmers were left without work. For the official government toll, the victims throughout Calabria amounted to about seventy. For the province of Reggio Calabria alone, the

83. ROSSI-DORIA 1929.

84. On the Polesine Flood in 1951 see JORI 2021.

damage amounted to 30 billion lire. Four thousand five hundred people were made homeless, and 1,700 houses collapsed or were uninhabitable. Among the damaged infrastructures, there were 26 collapsed bridges and 77 damaged aqueducts. The flood caused 3 victims in Canolo where, already in the past, many natural disasters had plagued the inhabitants. Just to mention the main events, in 1880 and 1881 two heavy floods caused serious damage to the small town; in 1894 an earthquake destroyed 12 buildings and damaged the vault of the main church, which had to be demolished; it was damaged in 1907 and in 1908 earthquakes when 25 buildings and again the main church<sup>85</sup>. The effects of the flood in 1951, initially led to the evacuation of the inhabitants from the upper part of the town, which was damaged by the fall of rocks from the overlooking cliff; then it led to the unavoidable decision, issued with the Ministerial Decree of 2<sup>nd</sup> of April 1952, to transfer the town to the Melia plain, where the new town – Canolo Nuova – was born<sup>86</sup> (figs. 11-12). On the one hand, the choice to transfer the city upstream from the old one certainly could guarantee major protection from hydrogeological instability, compared to the general trend of the relocation of small towns along the coast; on the other hand, the choice was also more suited to the local economy, firmly connected to the extraction of stone material, agriculture, and farming. However, although most of the inhabitants moved to Canolo Nuova, the old city was never been completely abandoned even today, it has preserved the town hall and some services and, at the same time, some ruins from 1951 events<sup>87</sup> (figs. 13-16).

In 1952, the government promulgated several general laws and provisions for flood emergencies in the country<sup>88</sup>. However, only one year later, in the Autumn of 1953, another heavy flood affected the Ionic area, causing heavy damage in Casalnuovo and Africo, where inhabitants were evacuated and transferred to Reggio Calabria and some coastal towns. Thus the government promulgated a new Law, n. 938, 27th December 1953, to allocate provisions for the areas damaged; in particular, this law equated the homeless to war refugees, extending the welfare benefits of the Second

85. BIOTTO, SALERNO, VELTRI 2015, p. 276; see also TETI 2004.

86. See MAREGGI in this volume, pp. 152-201.

87. On the relocation of Canolo and the relationship between the old and the new town see MUSOLINO in this volume, pp. 374-395. See also MUSOLINO 2012.

88. Law n. 7 8<sup>th</sup> January 1952 - *Assistance to populations affected by recent floods; Law 10<sup>th</sup> of January 1952, n. 9 - Provisions for the areas damaged by the floods and storm surges of the summer and autumn of 1951 in Calabria, Sicily, Sardinia, Liguria, Piedmont, Lombardy, Veneto, Emilia, Tuscany, Puglia, and Campania; Law 23<sup>rd</sup> of May 1952, n. 624 - New Provisions for the areas damaged by the floods and storm surges of the summer and autumn of 1951 in Calabria, Sicily, Sardinia, Liguria, Piedmont, Lombardy, Veneto, Emilia, Tuscany, Puglia, and Campania.*



Figures 11-12. Canolo Nuova, Reggio Calabria (photos N. Sulfaro, 2022)



Figures 13-16. Canolo Vecchio, Reggio Calabria (photos N. Sulfaro, 2023).

World War refugees to the refugees from the areas affected by the floods that occurred in the autumn of 1953<sup>89</sup>. In addition, a wider set of interventions was developed through the so-called "Special Law", Law n. 1177, 26<sup>th</sup> of November 1955 - Extraordinary provisions for Calabria, aimed at developing a plan for Calabria in 12 years, from 1<sup>st</sup> July 1955 to 30<sup>th</sup> June 1967. The plan was to involve works for the hydrogeological and reforesting arrangement of watercourses and slopes, for the stability and conservation of the land on the slopes, the reclamation of mountains and valleys, and interventions for the protection of small towns and villages from the risk of floods and landslides, including works for the rehabilitation of the damaged towns. If these interventions did not ensure the safety and economic stability of the inhabitants, the solution would be the partial or total relocation of the towns. In this perspective, the Special Law provided for updating the list attached to Law 445/1908; in addition to what was established in 1908 – assigning areas free of charge to the displaced – it assigned funds for the construction of new houses, also indicating the minimum standard typologies, consisting of three rooms and an extra room for rural or productive uses. The construction of aqueducts, sewers, internal roads, churches, schools, sports facilities, electric lighting systems, and cemeteries was also authorized at the new sites.

The relocation of Africo<sup>90</sup> opened a long debate among intellectuals and politicians, also based on experts' opinions and reports. In 1953 the writer Corrado Alvaro published an article entitled "Il dramma di un popolo" (*The drama of a population*) aimed at lashing the political class:

«It is the same area hit two years ago by a first flood of less horrendous proportions, a few days before the devastation of Polesine. There was then a bitter irony over those deaths; it was said that Calabria had the misfortune of a disaster as a good opportunity to attract attention to its evils, but another region in the north had a bigger one, concentrating the world's solidarity on itself»<sup>91</sup>.

According to Alvaro, the Government spent huge sums to consolidate slopes and riverbeds in vain: «After a few years, cracks already mark and break the bastions that hold the earth»<sup>92</sup>.

In the same year, the geologist Alberto Ducci carried out a study on the geological and geographical

89. Law n. 137, 4<sup>th</sup> March 1952 - *Assistance for refugees*. The government adopted and coordinated all the initiatives necessary for the rescue, accommodation, and assistance of the refugees, through the peripheral offices of the State and associations with charitable purposes. Costs relating to the shelter and maintenance of refugees were funded by the State. Refugees who did not need this kind of assistance had a temporary government subsidy.

90. See SANSA, pp. 90-105, and BUTTIGLIONE, pp. 106-125, in this volume.

91. ALVARO 1953.

92. *Ibidem*.

causes of floods and landslides in Southern Calabria, including some proposals concerning hydraulic and forestry works and consolidation of settlements<sup>93</sup>. According to the geologist, the area was affected by a strong erosion phenomenon in full swing; using the same definition by Giustino Fortunato, he defined the conditions of the area as a “wreckage”<sup>94</sup> caused by the particular and deep fracturing state of the rocks constituting the entire eastern side of Aspromonte and by the deep alteration of the lands due to geochemical processes<sup>95</sup>. Ducci was quite radical about the issue concerning the relocation of Africo: he excluded the possibility of building a new town within the area of the municipality, due to the hydrogeological instability<sup>96</sup> (figs. 17-19).

On year later, Zanotti Bianco argued with the expertise of Ducci, underlining that, as already expressed by Fortunato, the entire Calabria was a “wreckage”, that governments should have dealt with in the past through works and reclamations of mountains and valley never carried out<sup>97</sup>. Zanotti Bianco indicated a place called Caruso, in plain but close to the old small town, as a suitable location for the new settlement: he mentioned how, in the past, other villages had chosen more inland locations, for safety reasons and to escape malaria<sup>98</sup>.

However, the most widespread position was to move the new town near the coast, within another municipality, since the territory of Africo did not border the sea. The Agricultural and Forestry Department maintained that the territory of Africo had to be considered as an immense landslide, which does not allow either the reconstruction of urban settlements or the re-development of rural activities until the vast mountain and forestry reclamation was carried out which required at least fifteen years<sup>99</sup>.

In a Parliamentary debate in 1958, Eugenio Musolino, a communist Calabrian politician, argued that the unfavorable position to the relocation of the villages in Calabria was due to a “conservatory point of view”: «it does not take into account the needs of the ongoing civilization of the populations, and is convinced of the convenience of not overturning the economic structures, handed down to

93. DUCCI 1953.

94. See *infra* at notes 54-55.

95. DUCCI 1953.

96. *Ibidem*.

97. ZANOTTI BIANCO 1954, p. 456.

98. *Ibidem*.

99. *Ivi*, p. 456-457.



On this and in the next page, figures 17-19. Africo Vecchio, Reggio Calabria (photos N. Sulfaro, 2023).



us by our fathers»<sup>100</sup>. According to Musolino, the floods in 1951 and 1953 were caused by some particular meteorological – such as the condensation phenomena of cold air currents coming from Northern Europe and hot air currents coming from Africa –, which made the entire area more exposed to natural disasters<sup>101</sup>. For this reason, the solution was the depopulation of those inner areas that presented phenomena of hydrogeological disorder, to allow forestry technicians to carry out works of reforestation<sup>102</sup>. According to the politician, keeping alive ancient small towns and villages in inner areas was impossible as human activities, such as agriculture constituted an obstacle to reforestation. In addition, in most cases interventions aimed at reinforcing or repairing existing settlements had proven to be anti-economic; the choice to move Africo near the coast was inevitable to escape the slow and inexorable movement of the land that threatened all the poor populations of this part of Calabria<sup>103</sup>.

The position of Musolino, was also very significant since the poverty of Calabria in the 1950s could be measured, as in part in previous decades, not only per capita income but also by the number of beds in hospitals, the length of the road and railway network, the number of illiterate people and the underemployed population. In this perspective, in 1961, Law n. 705, 28<sup>th</sup> July represented a turning point for the abandonment processes, as relocation was no longer considered just a solution to seismic and hydrogeological risk, but also an aid in terms of social and cultural issues. It provided for the elimination of unsafe and unhygienic housing in Calabria and provided funds for increasing employment and for education; in particular, 10 billion lire was dedicated to housing, to accommodate families who lived in caves, shacks, basements, and unhygienic spaces; 609 million lire was allotted to equip schools with audio and television sets and class libraries. The legitimate need for better living conditions was definitely translated to an idea of development that contrasted and compared inner areas to coastal ones, the countryside to the towns, and, above all, the rural world to the modern urban way of living.

#### *4. Conclusions: from the 1970s to the contemporary debate*

Eventually, Africo was relocated near the coast, very far from the original settlement, where the inhabitants, almost all shepherds, and farmers, realized how they would have no new job opportunities,

100. MUSOLINO 1958, p. 767.

101. *Ivi*, p.769

102. *Ibidem*.

103. *Ivi*, pp. 769-770.

as the new village was near the sea<sup>104</sup> (figs. 20-21). This launched a debate that is still, in part, active: on the Ionian coast, the exodus was at the root of the phenomenon of *paesi erranti* (wandering villages)<sup>105</sup> where depopulation weakened entire communities that were unable to support their ancient settlements and not even able to set up productive activities in the new sites. The phenomenon is also called *paesi doppi* (double villages)<sup>106</sup> and based on the division between the ancient settlements on the hills or mountains and the new settlements built over time on the coast or in reclaimed areas; the latter appear different from the ancient, pre-existing and often traditional towns and villages, since they were far from representing truly autonomous centres, as they still administratively depended on the mother town located in inner areas<sup>107</sup>. Above all, this phenomenon ended up accelerating the hydrogeological instability, which was one of the reasons of the abandonment, due to the lack of maintenance interventions on the territory that the ancient peasant communities had practiced in inner areas. This could no longer be guaranteed as they had emigrated or moved to the coastal areas, where the effects of hydrogeological instability were paradoxically harder felt. Contacts between the new settlements and the original ones were frequent, but the road connections were not satisfactory. The isolation of inner area villages – due to poor roads – was also at the origin of their underdevelopment which has continued, up to today, thus fueling the precariousness of the general living conditions of the population residing in these areas<sup>108</sup>.

In the 1970s in Italy some of the national government competencies, among which the relocation and stabilization of towns and villages<sup>109</sup>, passed to the regions. However, the approach to the issue carried on by the regional government continued to be nearly the same as the national one. The first law emitted by the regional government, Regional Law n. 16, 31<sup>st</sup> August 1973 – “Relocation and stabilization of towns and villages plagued by natural disasters”, provided for relocation plans which had to include the identification of the new areas, a preliminary project of new towns and new infrastructures, the costs and, as the only novelty, the indication of the new use of the areas to be

104. See STAJANO 1979.

105. TETI 2004.

106. TETI 2008. See also MAREGGI in this volume, pp. 152-201.

107. CARCHEDI, VITIELLO 2014, p. 85; SORIERO 1985 p. 756.

108. NOUAT 1960, p. 251; CARCHEDI, VITIELLO 2014, pp. 85-86.

109. Art. 2, comma c, lettera m of DPR n. 8, 15<sup>th</sup> January 1972, *Trasferimento alle Regioni a statuto ordinario delle funzioni amministrative statali in materia di urbanistica e di viabilità, acquedotti e lavori pubblici di interesse regionale e dei relativi personali ed uffici*.



From the top, figure 20. Africo Nuovo, Reggio Calabria (photo N. Sulfaro, 2022); figure 21. Africo Nuovo in a frame from the movie "Anime nere", directed by Francesco Munzi, 2014.

abandoned. The Regional Law n. 22, 20<sup>th</sup> August 1977 allowed the regional government to intervene also in the absence of a preliminary project and, above all, without the indication of the new uses of the areas to be abandoned. Within this legislative framework, following also the transfers planned already in the 1950s, the new towns of Cardeto, Condofuri, and Pentedattilo arose. Roghudi Vecchio was declared unusable following the two very strong floods that occurred in October 1971 and January 1973, and the inhabitants were distributed in the neighboring towns. After eighteen years, in 1988, the new Roghudi was born near the Ionian coast within the territory of Melito di Porto Salvo (figs. 22-23).

In March and April 1978 some earthquakes damaged some small towns in the Ionic area, such as Ferruzzano, where it caused some collapses and cracks to the 70% of buildings<sup>110</sup>. This pushed the Regional government to intervene with funds aimed at repairing the damages in some towns and villages. The Regional Law n. 2, 24<sup>th</sup> February 1979, didn't concern the relocation of damaged settlements, but only the reconstruction, repair, and recovery of buildings destroyed or damaged by the earthquakes<sup>111</sup>.

The tendency to propose the relocations seems to have subsided, given the high economic and social costs which were often associated with the limited success of the new towns<sup>112</sup>. On the other hand, those were years in which the recovery of built heritage became, at different levels, more central in urban policies; however, above all, the demographic crisis continued to affect Southern Italy making relocations less interesting and, above all, making the public investments less sustainable<sup>113</sup>.

For this reason, when the regional Law n. 3, 24 January 1997, allocated funds to provide for the undelayable transfer needs of the small town of Ferruzzano<sup>114</sup>, as it was particularly plagued by the seismic events of March-April 1978, the initiative failed: there had been practically left no inhabitants in the old town and building new houses was no longer necessary.

110. See BOTTARI *et al.* 1982.

111. It provided funds aimed at reconstructing and repairing buildings and stabilizing the sites in San Luca, Samo, San Lorenzo, and Roccaforte del Greco, seriously at risk in terms of geological stability; in addition, the law provided funds to recuperate or reconstruct public and private buildings also in Bruzzano Zeffirio, Palizzi, Condofuri, Bagaladi, Bova Marina, Caraffa del Bianco, Casignana, Montebello Jonico, Sant'Agata del Bianco, Staiti and Reggio Calabria. It is interesting to underline how some of these small towns – such as Bova Marina and Bruzzano Zeffirio – were new towns relocated or settled during the first half of the 19<sup>th</sup> century.

112. Russo 2002, p. 74.

113. On the demographic trends in this period, see DEL PANTA, DETTI 2019, p. 14.

114. According to the Law the municipal administration was authorized to launch, within ninety days a competition for planning and executing the works for a new town.



Figure 22. Roghudi, Reggio Calabria (photo N. Sulfaro, 2022).



Figure 23. Roghudi Nuovo, Reggio Calabria (photo N. Sulfaro, 2023).

However, today the debate on these small towns, now considered ghost towns, continues, trying to develop strategies aimed at revitalizing them and contrasting depopulation<sup>115</sup>.

In extreme summary, we can state that the triggering factors of the processes of abandonment of small towns and villages in Southern Calabria were natural disasters, such as earthquakes and floods which, due to the geo-morphological characteristics of the territory, in turn, activated processes of internal migration and relocation, much more accentuated than in the rest of Italy<sup>116</sup>. In this perspective, the events in Calabria can be seen as a lens through which to look at the processes that occurred in the entire country, as the natural disasters intertwined with other anthropic factors that were at the basis of the Italian inner areas depopulation during the 19<sup>th</sup> century: the radical transformations of the rural world, the industrial development and the establishment of the urbanized society<sup>117</sup>.

This dynamic emerged already in 1966, when the Deputy Pasquale Poerio, a member of the Communist Party, described the result of the application of the Special Law in Calabria to the then-current state of affairs. That year was once again dramatically representative of the hydrogeological disorder in Italy, with the well-known catastrophic flood in Florence between October and November which, according to Poerio was:

«A revenge of the abandoned countryside and hills against the motorways and the cars that have been preferred to them: against the motorways, collapsed by the flood of rivers and streams, and against the cars, buried in the car parks by the mud carried downstream from the hills and from the mountains due to flood rains (...) The same scenes, the same tragedy that occurred in Calabria in October and November 1951 and November 1953. Even at that time, so many deaths, so much misery, so many misfortunes, which were superimposed on the existing misery and abandonment, not by the will of the Calabrian people, but by the choice that the ruling class of our country has always made in Calabria and Southern Italy. A huge tragedy also at that time, which moved national and global public opinion, but which did not serve as a lesson to the current ruling class of our country, if it is true, as it is true, and as the dramatic events of recent days confirm, that the soil remained undefended, that the countryside remained abandoned, that the forest was devastated, that the hill was depopulated, that the first defender of the soil, the farmer, was forced to leave the land»<sup>118</sup>.

The speech by Poerio can still be agreed on today regarding the analysis of the abandonment process of inner areas and its effects on a broader level. Between 1861 and 1961 the poorest and most peripheral mountainous and hilly territories were gradually abandoned, starting from those

115. Among the vast bibliography on the issue, see OTERI, SCAMARDÌ 2020.

116. GIOVANNINI 2001, p. 7.

117. DEL PANTA, DETTI 2019, p. 13.

118. *Atti Parlamentari* 1966.

with less profitability, in favor of the plains and foothills centers<sup>119</sup>. Various large-scale interventions accompanied this; at the same time, industrial development has set a powerful attraction towards urban centres in motion, mainly in the North, but also in some large centers in the South. The common perception of this process is that of two communicating vessels, one that empties and the other that fills up. However, it is a naively mechanical and misleading model, as the process is interactive: as the city grows, it transforms, while as it empties the countryside profoundly changes<sup>120</sup>; at the same time, this profound transformation of the countryside has, in turn, an effect on coastal areas. These processes should be considered more and more seriously, especially in the current context of climate change.

119. MARTINOTTI 2011, p. 133.

120. *Ivi*, p. 138.

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# LOST AND FOUND

Processes of abandonment of the architectural and urban heritage  
in inner areas. Causes, effects, and narratives (Italy, Albania, Romania)



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ArchistoR  
EXTRA



## Un disagio che viene da lontano. Il territorio di Africo tra il sisma del 1783 e l'alluvione del 1951

Renato Sansa (Università della Calabria)

*Nell'ottobre 1951 una terribile alluvione travolse Africo e la frazione di Casalnuovo. Fu un evento traumatico che spezzò il filo della storia di un paese. Nei mesi successivi l'attenzione si spostò sul futuro di Africo. Infine prevalse la scelta di spostare l'insediamento dalla montagna alla marina. L'intento di questo articolo è quello di riannodare le fila della storia che ha preceduto l'evento traumatico, risalendo fino al terremoto del 1783. Così facendo, l'evento del 1951 perde la valenza di una rottura improvvisa, ma piuttosto si giustifica come risultante di una serie di scelte operate nel corso degli ultimi due secoli con particolare enfasi sulla insufficiente risposta fornita di fronte ai danni causati dal terremoto del 1908. Un significato particolare assume l'indagine avviata da Umberto Zanotti Bianco, coadiuvato da Manlio Rossi Doria, dopo l'alluvione del 1927. L'attenta analisi delle condizioni socio-economiche e le soluzioni allora proposte per alleviare la difficile situazione esistenziale degli abitanti di Africo, avrebbe potuto fornire una diversa prospettiva per lo sviluppo del centro abitato.*

# LOST AND FOUND

Processi di abbandono del patrimonio architettonico e urbano nelle aree interne. Cause, effetti, narrazioni (Italia, Albania Romania)

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# An Uneasiness that Comes from Afar. Africo between the Earthquake of 1783 and the Flood of 1951

Renato Sansa

The present contribution aims to elucidate the historical roots of an epiphenomenon such as the catastrophic flood of 1951, which precipitated the subsequent relocation of Africo and its hamlet from the mountains to the coast. The relocation entailed a significant alteration to the customs of a population that had become accustomed to exploiting the limited resources of the mountains. The decision to abandon the settlement that had been destroyed by the flood and to rebuild in an entirely different area, which was not even physically connected to the old centre due to the lack of any road communication, was the subject of intense debate (fig. 1).

The analysis was oriented towards the examination of current events and potential future developments, with a relative de-emphasis on the historical origins of the phenomenon, which was not exclusively associated with landslide occurrences triggered by intense precipitation. It is evident that the area in question has been subjected to a series of seismic events over a period of approximately 150 years, which have served to exacerbate its inherent fragility. In his account of visits to the region, Venturino Sabatini linked the 1908 earthquake to the geological features and construction methods employed in the area. He highlighted the triggering of landslides in the Africo area by the earthquake, a phenomenon that also affected Canolo, Ferruzzano and Bruzzano.

The 1927 flood provided the impetus for an investigation into the economic and social conditions of Africo. While the inquiry shed light on the challenging living and existential circumstances of



Figure 1. Africo Vecchio (Reggio Calabria). The church of San Nicola abandoned after the flood of 1951 (photo A.M. Oteri, 2023).

Africo's inhabitants, it also underscored the critical need for maintenance in the wake of the 1908 earthquake, which had long been neglected.

### *The seismic activity*

Prior to the disruptions caused by the floods, Africo had been affected by significant seismic activity since the end of the 18<sup>th</sup> century. The earthquake of 1783, in particular the tremors of 5 and 7 February, caused extensive damage throughout the town, with numerous houses collapsing and others sustaining significant damage. The number of fatalities was relatively low, with only five individuals losing their lives out of a total population of 625. Subsequent tremors had no significant consequences<sup>1</sup>. A study published in 1863 retraced the events of the earthquake and provided an estimate of the damage incurred by individual communities. For Africo, the calculated damage was 80,000 ducats, while for Casalnuovo di Africo, it was 70,000 ducats<sup>2</sup>. It is important to contextualise these figures, as they reflect the consequences of the earthquake in a specific cultural climate. In this context, the response to the earthquake had to demonstrate the organisational capabilities of the ruling house and government involved<sup>3</sup>.

A little over a century later, the earthquake struck Africo again. According to the most reliable data provided by the military engineers, 109 damaged houses out of a total of 350 were counted throughout the municipality. Of these, five collapsed completely and another four partially. There were only three people with minor injuries, and approximately ten families were displaced<sup>4</sup>.

The early decades of the 20<sup>th</sup> century were marked by a series of seismic events, the initial occurrence of which in 1905 resulted in limited damage in Africo but was perceived with greater intensity in other regions of Calabria. The peninsula of Capo Vaticano experienced the greatest intensity. As observed by contemporaneous witnesses, «the range of the earthquake was extensive, perhaps even greater than that of the 1783»<sup>5</sup>. It was observed that the effects of the earthquake

1. VIVENZIO 1783; SARCONI 1784.

2. GRIMALDI 1863, appendix 1.

3. PLACANICA 1985.

4. Riccò 1897. Archivio di Stato di Reggio Calabria (ASRC), *Prefettura, Atti del terremoto del 1894*, b. 1, fasc. 4, Lettera di un Consigliere comunale di Africo al Prefetto di Reggio Calabria relativa ai danni causati nel Comune dal terremoto del 16 novembre 1894, Africo 20 novembre 1894; *Ivi*, b. 5, fasc. 333, Elenco degli individui danneggiati dal terremoto.

5. *Il terremoto delle Calabrie* 1906, p. 521.

were intensified by the construction techniques employed in the erection of the buildings and the materials used. It is noteworthy that «the mortar (except in Bova and a few other villages) is bad, both because of the earthy nature of the sands used and the primitive methods of firing and slaking the lime»<sup>6</sup>. Bova, situated in close proximity to Africo, was distinguished for the superior quality of the construction materials employed in the erection of dwellings capable of withstanding the inherent stresses of their environment. This was in stark contrast to the housing structures that would emerge in Africo in subsequent years. The 1905 earthquake contributed to the growing awareness of the region's condition and the state's inadequate intervention, particularly in regard to measures to contain hydrogeological instability. The legislation of 25 June 1906 (Nr. 255) aimed to provide a significant impetus for the development of essential infrastructure, including communications networks, hydrogeological safety measures and land reclamation. It was recognised that these would be vital for the region's future development<sup>7</sup>.

In 1907, the consequences of the earthquake were more serious. In Africo, 78 houses were found to have been damaged: 23 were found to have collapsed entirely, while a further 43 were found to have suffered serious damage, necessitating the use of shoring up in some cases. Additionally, the parish church sustained structural damage. It is noteworthy that there were no fatalities among the population, with only two individuals sustaining injuries<sup>8</sup>. A year later, the disastrous earthquake of 1908 left significant devastation in the region between southern Calabria and Sicily. According to Mercalli, the construction methods employed in this area, which contravened legislative recommendations issued by the Bourbons following the 1783 earthquake, contributed to the severity of the damage. The resilience of "baraccate" houses is also highlighted by Sabatini. About Africo the quantification of the damage is somewhat uncertain. Recent studies report that 750 houses were damaged, of which 35 collapsed or were demolished, 115 were seriously damaged or rendered uninhabitable, and 600 sustained minor damage<sup>9</sup>. The proposed estimates are derived from the summary table

6. *Ivi*, p. 532.

7. TRAVAGLINI 1985, p. 702.

8. Archivio Centrale dello Stato (ACS), *Ministero dell'Interno, Direzione generale dell'amministrazione civile, Terremoti, el. 4, b. 22, fasc. 25000.4.5 (1907-08), Terremoto 1907 Rapporti degli ispettori ed altri funzionari, Relazione del Comitato governativo di soccorso pei danneggiati dal terremoto 1907 nella provincia di Reggio Calabria, Roma 1908; ivi, Terremoto 1907 Rapporti degli ispettori ed altri funzionari, Prospetto degli edifici pubblici danneggiati dal terremoto del 23 ottobre 1907 e ammontare dei danni redatto dal Genio Civile, Reggio Calabria 15 January 1908.*

9. GUIDONI, MARIOTTI 2008, p. 47.

prepared by Mercalli<sup>10</sup>, which exhibits notable discrepancies with the data provided by Sabatini. The latter estimated for Africo 50 collapsed or demolished houses, 80 uninhabitable houses, 90 damaged houses and 15 uninjured houses, and for the hamlet of Casalnuovo 56 collapsed or demolished houses, 89 uninhabitable houses and 35 uninjured houses<sup>11</sup>. The data in question is, at the very least, uncertain and markedly divergent from the figures presented in the margins of the post-flood survey of 1927. This discrepancy is likely attributable to a gap in the primary sources produced by state institutions, specifically in regard to Africo. Despite this, there is a notable consensus among the post-earthquake writings regarding the challenges posed by Africo's remoteness from major communication routes and the deplorable condition of the mule track, which collectively impeded the necessary post-earthquake reconstruction efforts.

#### *The 1927 flood and the Africo inquiry*

A report sent by an official of the Reggio prefecture in the aftermath of the flood at the end of November 1927 led the prefect of Reggio Calabria, Francesco Benigni, to conclude that the «situation is worse than one can imagine. Old dying people found on the mud in primitive and very unsafe shelters: children naked or covered in tattered shirts; everywhere scenes of misery almost inconceivable in any other country»<sup>12</sup>. The missive, addressed to Gaetano Piacentini, was brought to the attention of Umberto Zanotti Bianco, who was at the time one of the most active members of the Association for Southern Italy. He had resided in Reggio Calabria for a considerable period of time and was therefore well-acquainted with the situation in Calabria.

Following an initial inspection of the Africo area in January 1928, he proceeded to oversee the construction of a brick kindergarten with an outpatient clinic and a timber structure for staff. The structure was indeed constructed in a relatively short period of time. In the presence of the relevant authorities, the foundation stone was laid on 28 May 1928. Inauguration of the kindergarten took place on 15 August 1929. Zanotti Bianco's interest in Africo extended beyond his contributions to the field of education, which Animi had specialised in during that period.

10. MERCALLI 1909, p. 261.

11. SABATINI 1909, pp. 338-339.

12. Archivio dell'Associazione Nazionale per gli interessi del Mezzogiorno d'Italia (ANIMI) (Archive of the National Association for the Interests of Southern Italy), Fondo archivistico Umberto Zanotti Bianco, Sez. A, Serie I Correspondenza, unità 328, lettera del 23 dicembre 1927 indirizzata a Gaetano Piacentini.

A sense of justice compelled him to expand his understanding of the territory and the underlying causes of the poverty he had observed among the Africo population. In his diary, he articulated that his interest was driven by a desire to address «against all the social injustices, national injustices and political errors that have accumulated in that area, where a cruel fate has left men defenceless»<sup>13</sup>. It was with these assumptions that an investigation into the conditions in Africo was initiated.

To initiate the investigation, he enlisted the assistance of a young scholar specialising in agronomy at the Portici Institute of Higher Education, with whom he had previously established a professional relationship: Manlio Rossi Doria<sup>14</sup>. The initial trust was well placed, and on 31<sup>st</sup> of May, Rossi Doria transmitted a prospectus to Zanotti Bianco, which would serve as the foundation for the subsequent investigation. This prospectus outlined the necessity for a new draft of the forest cadastre, which had not been updated since the Unification of Italy<sup>15</sup>.

Manlio Rossi Doria's arrival in Reggio Calabria was documented on the 28<sup>th</sup> of August, 1928. On the 4<sup>th</sup> of September, a delegation comprising Rossi Doria, Zanotti Bianco, Gaetano Piacentini, an Animi councillor, and Carlo Buttini, a civil engineer, left for Africo. The journey was lengthy, lasting 12 hours, nine of which were spent on muleback. Upon arrival in Africo, the expedition proceeded to establish its base of operations in a military tent situated in the vicinity of the town. Zanotti Bianco's primary responsibility was to liaise with the local population and collect testimonies from residents through interviews. The impact was profound. In his diary, Zanotti Bianco observed that the constant exposure to the harsh realities of the region had left him emotionally drained. He noted that the overwhelming poverty, illness, and despair he witnessed daily in the remote, isolated land left him with a profound sense of helplessness and a deep longing to provide assistance. In his solitude at night, he felt an overwhelming urge to cry out for help on behalf of the people he had come to know, sending a loaf of the region's infamous bread to distant friends and colleagues who could empathize with the pain he had witnessed<sup>16</sup> (fig. 2).

The bread from Africo has a "high symbolic value"<sup>17</sup>. Following the initial visit to Africo in January 1928, the "mischio", as the bread was referred to by the Africoti, was transported to a laboratory. The

13. *Ivi*, Serie II Diari e quaderni (1904-1963), unità 19 Diario (22 luglio 1922 - 31 dicembre 1928), 15 agosto 1928.

14. On. Manlio Rossi Doria, MISIANI 2010.

15. ZANOTTI BIANCO 1989, p. 680.

16. ANIMI, Fondo archivistico Umberto Zanotti Bianco, Sez. A, Serie II Diari e quaderni (1904-1963), unità 19 Diario (22 luglio 1922 - 31 dicembre 1928), 11 settembre 1928.

17. GRASSO 2015, p. 86.

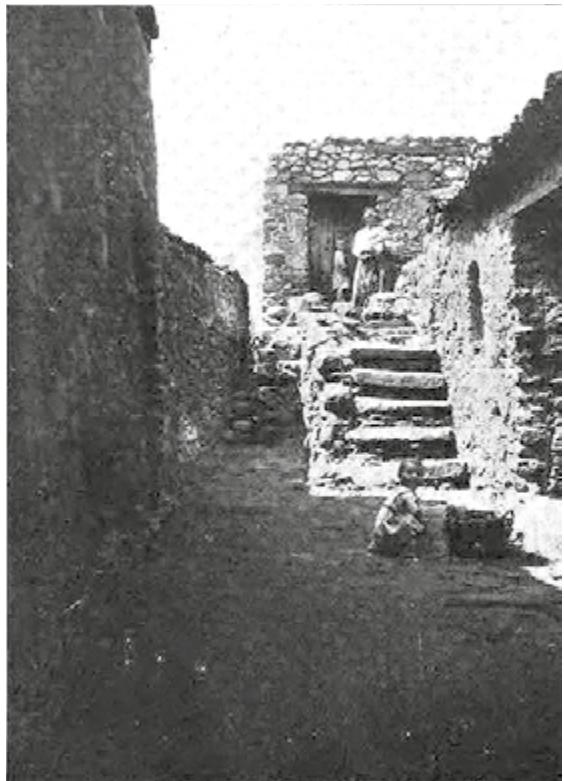


Figure 2. The conditions of the Africo settlement in 1928 (ANIMI 1929, p. 205).

director of the laboratory subsequently provided the following commentary: «truly the designation bread is arguably inappropriate. The poverty of available terminology forces us to use it». The bread sample sent for analysis exhibited «none of the physical characteristics of wheat bread and was almost completely mouldy. Microscopic examination revealed that it consisted primarily of leguminous flours. The considerable amount of mould, and perhaps also the method of preparation, meant that no other flour species could be detected. Additionally, numerous straw stalks were observed, which were also visible on microscopic examination»<sup>18</sup>.

18. ANIMI, Fondo archivistico Umberto Zanotti Bianco, Sez. A, Serie I Corrispondenza, unità 328, lettera del 25 gennaio 1928.

In September, while the investigation was ongoing, Zanotti Bianco dispatched the “mischio” to his correspondents, with the objective of raising awareness and potentially securing donations for the people of Africo. Among the recipients was Giustino Fortunato, who, upon receipt of the Africo bread sample, offered an epigrammatic commentary: «the bread produced in Africo today represents the bread of the entire continental Mezzogiorno prior to 1860»<sup>19</sup>. The account published by Zanotti Bianco was more detailed and nuanced, after describing in detail «the bread, which is for many families the almost exclusive food, is made for some months of the year with the mix that the territory produces, that is, with lentil, chickling vetch and barley flour, with a sour and bitter taste», he dwelt on the publicity he gave it, «the loaves of bread that I buy every evening and send to friends all over Italy as a testimony to the conditions of this country, and to collect the funds required for the reconstruction of the definitive kindergarten, have none of the physical characteristics of wheat bread and are for the most part mouldy. This bread, Giustino Fortunato wrote to me, I saw before 1860. In the Apulo-Basilicata region, even memory of it is lost, nor does the most vivid and sure memory reach or could reach that antediluvian pebble. But, given the advancing folly, our children and grandchildren could learn what we no longer knew»<sup>20</sup>. Giorgio Amendola also addressed the topic in «L’Unità», employing the following terminology: «I was present in Giustino Fortunato’s study when Zanotti Bianco exhibited the bread consumed by the residents of Africo: a compact, dark stone, crafted with mischio, lentil, chickling vetch, and barley flour. I was profoundly affected by the emotional display of Zanotti Bianco, whom I had previously known as a composed and deliberate individual. This occurred in 1928, during the apex of the fascist era. However, the poverty of Africo was a long-standing phenomenon»<sup>21</sup>.

Manlio Rossi Doria was engaged in an economic analysis of the situation, specifically in the process of delineating cadastral surveys on the Military Geographical Institute map. On 15 September, Zanotti Bianco, Rossi Doria and Butini returned to Reggio Calabria. On 24 October, Rossi Doria dispatched the document to Zanotti Bianco<sup>22</sup>. It was subsequently conveyed to the prefect of Reggio for potential action in the interest of the populace and to Prof. Aldo Pavari for republication in the periodical «L’Alpe». The typescript was also perused by Arrigo Serpieri, who expressed approval of its contents. The text, bearing Animi’s signature, was published in 1929<sup>23</sup>.

19. PONTIERI 1969-70, p. 231.

20. ZANOTTI BIANCO 2006, pp. 119-120. The article was first published in «Il Ponte», 1946, 5-9.

21. AMENDOLA 1979.

22. ZANOTTI BIANCO 1989, pp. 687-697.

23. ANIMI 1929.

The findings of the investigation painted a rather dismal picture of the situation in Africo, yet they also offered insights and recommendations that could potentially contribute to the improvement of the region's economic and social conditions. The situation of the inhabitants was characterised by a number of worrying sanitary deficiencies, beginning with the housing conditions and the absence of health services. The diet was inadequate, comprising a lack of both meat and fat intake. The availability of legumes was limited, and even goat cheese was in short supply. In addition to the lack of adequate health services, the houses were still visibly damaged from the 1908 earthquake. The remoteness and lack of communication had prevented the implementation of effective measures to restore housing conditions. The earthquake had significantly compromised the structural integrity of the housing in Africo: of the 135 houses, only 15 remained intact. Zanotti Bianco would subsequently revisit this point several years later. In a note in response to a speech delivered by the engineer Domenico Andriello at the 1957 Geographical Congress in Bari, who had presented specious arguments in favour of relocating Africo to the coastline following the 1951 flood, he posited that Africo «would not have been reduced to the inhuman conditions I wrote about in 1928, if after the Calabrian-Sicilian earthquake of '908 the administrative authorities had come to its rescue. Out of 135 houses, only 15 then remained unharmed: 20 collapsed completely, 30 partially. Of the 135, 80 were declared uninhabitable [...] and yet the population remained in the ruins because it was difficult to transport the cement and iron required by legislation for poor earthquake victims, both for construction and repairs. The country was nine hours away from the navy and was forgotten! The flood waters of October '51 therefore had no difficulty in knocking down crumbling walls and a few houses that had already been in ruins for decades, while our kindergarten, erected in a higher position and above all well-built, remained intact»<sup>24</sup> (fig. 3).

The data on sanitary conditions demonstrated a clear correlation with demographic trends. In 1927, the birth rate reached a point where it equalled the death rate: 41 births were matched by 41 deaths. As in an ancient demographic system, the majority of deaths occurred in the infant segment. Of the 41 deaths, 25 involved individuals under the age of four.

The resources available to the inhabitants were modest in quantity and quality. Approximately half of the territory was forested, with much of it confined and, in any case, only minimally marketable due to the absence of infrastructure. Pastures constituted 40% of the agricultural area, yet these were characterised by steep terrain, rendering them unsuitable for agricultural use except for the

24. ANIMI, Fondo archivistico Umberto Zanotti Bianco, Sez. B, Serie 10 Attività politica e parlamentare, unità 21 "Piano di miglioramento fondiario del comprensorio di Africo" (1955 - 1960), ff. numerati 3-4, s.d.



Figure 3. Africo Vecchio, Reggio Calabria. The old school built by ANIMI (photo A.M. Oteri, 2022).

grazing of goats. Furthermore, only 10% of the land was arable, and this was characterised by low productivity. This meant that it was capable of providing enough food to cover consumption for just five months. The deficit was compensated for through the purchase of goods in Bova, financed by the proceeds of goat farming. Furthermore, recent legislative measures had exacerbated the situation. The law of August 12, 1927 (No. 1580), which addressed the regulation of cereal milling, made it unlawful to mill grains according to traditional methods, such as those in use in Africo, compelling individuals in the region to resort the electric mill in Reggio Calabria. Furthermore, the legislation of January 16, 1927 (No. 100) imposed a specific tax on goats with the objective of safeguarding forest resources.

In order to enhance the economic situation and mitigate the adverse living circumstances experienced by the Africoti population, a series of measures were put forth. A proposal was put forth for a revision of the grazing and sowing restrictions, which currently encompass 67% of the communal lands. It was proposed that these constraints be maintained in the area subject to reforestation, while the other areas would be permitted to sow and graze. In particular, the 100-hectare state-owned land known as "castagneto" was to be granted in emphyteusis, with the obligation for the tenants to maintain the arboreal surface area, and to arrange the terraced land in order to proceed with the planting, in the absence of oaks or chestnut trees, of fruit trees, vines, or olive trees. A further issue was the suspension of the goat levy, which permitted the animals to graze in areas where they would not damage the forest (fig. 4).

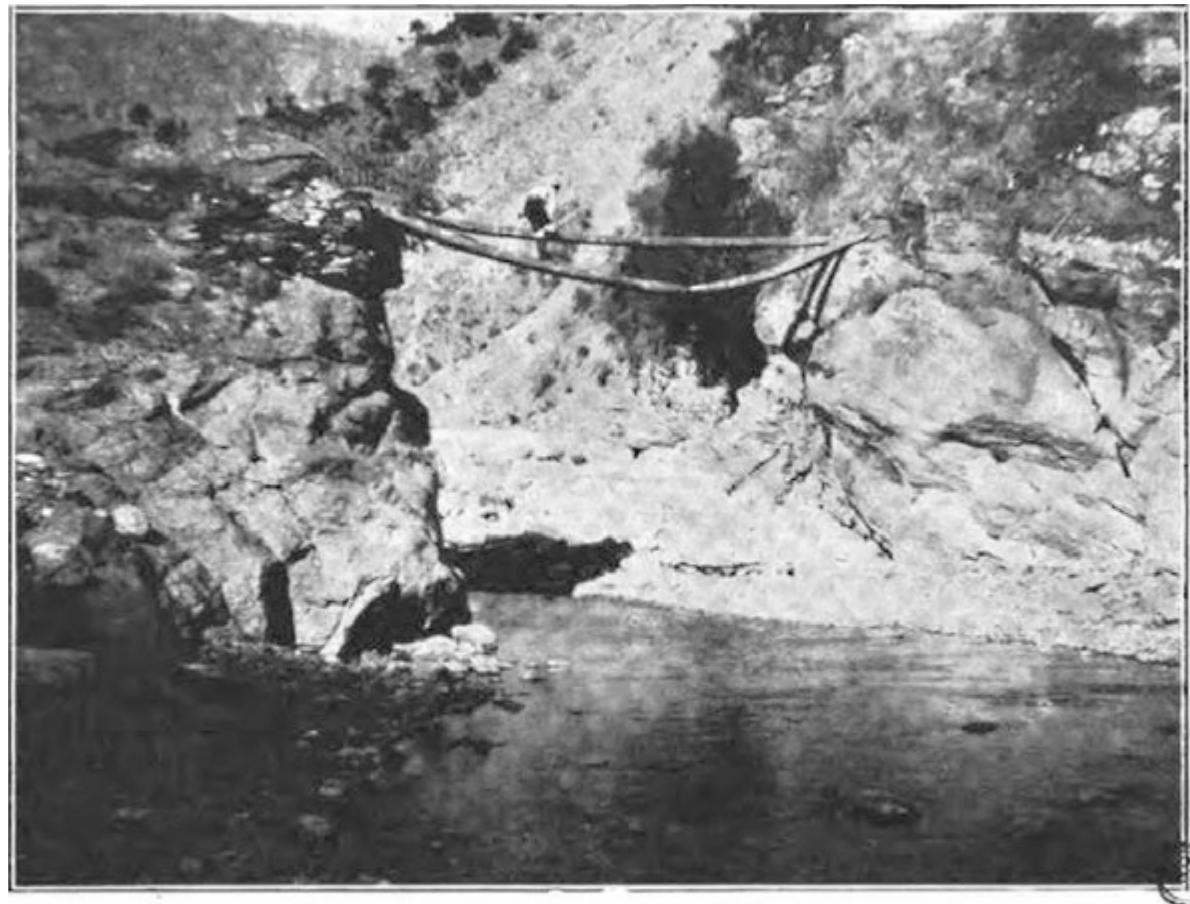
The reform of the economic structure would have been accomplished with interventions on the road infrastructure to allow inclusion in the commercial circuit. In particular, the reconstruction of the bridge over the Aposcipo creek, which had collapsed due to landslides, was of great urgency. Furthermore, the regimentation of the La Verde creek and other watercourses would have led to a total reclamation of 12,700 hectares. Investment in infrastructure would have increased employment and countered the crisis in goat farming. It is somewhat surprising that, in 1948, few years before the disastrous flood of 1951, a project was presented for the reclamation of the La Verde creek and the hydroelectric utilisation of the Buonamico, Butramo and Aposcipo creeks<sup>25</sup> (fig. 5).

25. ASRC, *Camera di commercio di Reggio Calabria*, b. 126, fasc. 22.



MAGRI SEMINATORI SI ARRAMPICANO SULL'ERTA MONTAGNA.

Figure 4. Terraced arable lands (ANIMI 1929, p. 207)



LA FRAGILE E PERICOLOSA PASSERELLA SULL'APOSCIPO.

Figure 5. The wooden footbridge over the Aposcipo stream, replacing the collapsed bridge (ANIMI, 1929, p. 203).

### *Conclusions*

The inquiry, which pursued the objectives of integral reclamation, a concept dear to Serpieri, achieved some notable outcomes. These included the mitigation of the goat tax, the reduction of restricted forest areas and the suspension of the mill law. The planned bridge over the Aposcipo creek was not constructed; instead, only two footbridges were built. Some of the dwellings were relocated to Campusa, which was less prone to landslides. The Animi not only constructed a kindergarten in Africo and in the hamlet of Casalnuovo, but also a healthcare facility. Nevertheless, Africo's issues remained unresolved. The anticipated integration of the town with the primary transportation infrastructure did not materialise, and a mule track continued to serve as the sole connection between Africo and the wider province.

The investigation was soon eclipsed by the fascist regime's deliberate decision to downplay the challenges facing Southern Italy. Nevertheless, the technical knowledge regarding the critical soil conditions and potential remedies had been well documented since the nineteenth century<sup>26</sup>. The town of Africo remained vulnerable to the risk. In 1948, an article in the weekly magazine «L'Europeo», written by Tommaso Besozzi and accompanied by photographs taken by Valentino Petrelli, caused considerable distress among the Italian public due to the graphic portrayal of extreme poverty<sup>27</sup>. In the same year, a project to regulate the area's streams was submitted to the Reggio Calabria Chamber of Commerce. It could have constituted a potential solution to mitigate the effects of the 1951 flood that swept away Africo<sup>28</sup>.

26. PALMIERI, PETRUCCI, VERSACE 2011.

27. BESOZZI 1948.

28. See *infra* note 25.

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# LOST AND FOUND

Processes of abandonment of the architectural and urban heritage  
in inner areas. Causes, effects, and narratives (Italy, Albania, Romania)



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EXTRA



## **"Il risultato dell'esperimento". Il caso di Africo e del suo territorio come esempio di trasformazione ambientale nell'Italia del dopoguerra**

Antonio Buttiglione (Università degli Studi di Salerno)

*Il saggio analizza i processi di trasformazione ambientale e sociale nelle aree rurali dell'Italia del dopoguerra, attraverso il caso di studio del trasferimento del centro urbano di Africo, in Calabria, a seguito delle alluvioni degli anni 1950. Osservando le conseguenze ambientali, sociali e politiche prodotte dall'impatto dei due cicloni mediterranei del 1951 e del 1953 sul contesto già precario dei centri rurali dell'Aspromonte, la ricerca mostra come i modelli di sviluppo sociale ed economico opposti, quello agro-silvo-pastorale montano e quello agricolo urbano costiero, abbiano sviluppato un ampio dibattito nella politica e nell'opinione pubblica nazionale e locale, determinando schieramenti trasversali ai consolidati schieramenti politici. Il trasferimento della popolazione e la ricostruzione del nuovo centro di Africo sulla costa determinarono processi di resistenza alle decisioni imposte dall'alto. I movimenti politici popolari e i gruppi di azione collettiva, organizzati in varie forme, cercarono di affermare le loro istanze per il ripristino identitario, istituzionale, territoriale, sociale ed economico della loro comunità politica "dal basso", contro una trasformazione ambientale imposta che non teneva conto della loro vocazione territoriale e che non produsse gli effetti di sviluppo desiderati.*

# LOST AND FOUND

Processi di abbandono del patrimonio architettonico e urbano nelle aree interne. Cause, effetti, narrazioni (Italia, Albania Romania)

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# **“The Result of the Experiment”. The Case of Africo and its Territory as an Example of Environmental Transformation in Post-War Italy**

Antonio Buttiglione

In October 1951 and in October 1953 two medicanes (Mediterranean cyclones) hit Calabria. The first, of greater proportions, affected the western Mediterranean, from eastern Spain to southern France and all over Italy, where the greatest damages were recorded in the Polesine and southern Calabria. The second hit the eastern Mediterranean, and in Italy eastern Sicily and southern Calabria. These were exceptional events which had some precedents in the past decades, but they occurred in those years with an unprecedented scale and violence. These were aggravated by the localization of atmospheric effects in areas where the combination of factors outside the storms, such as the particular circulation of wind currents, amplified the power of converging torrential rains, thunderstorms, whirlwinds and swells (figs. 1-2)<sup>1</sup>.

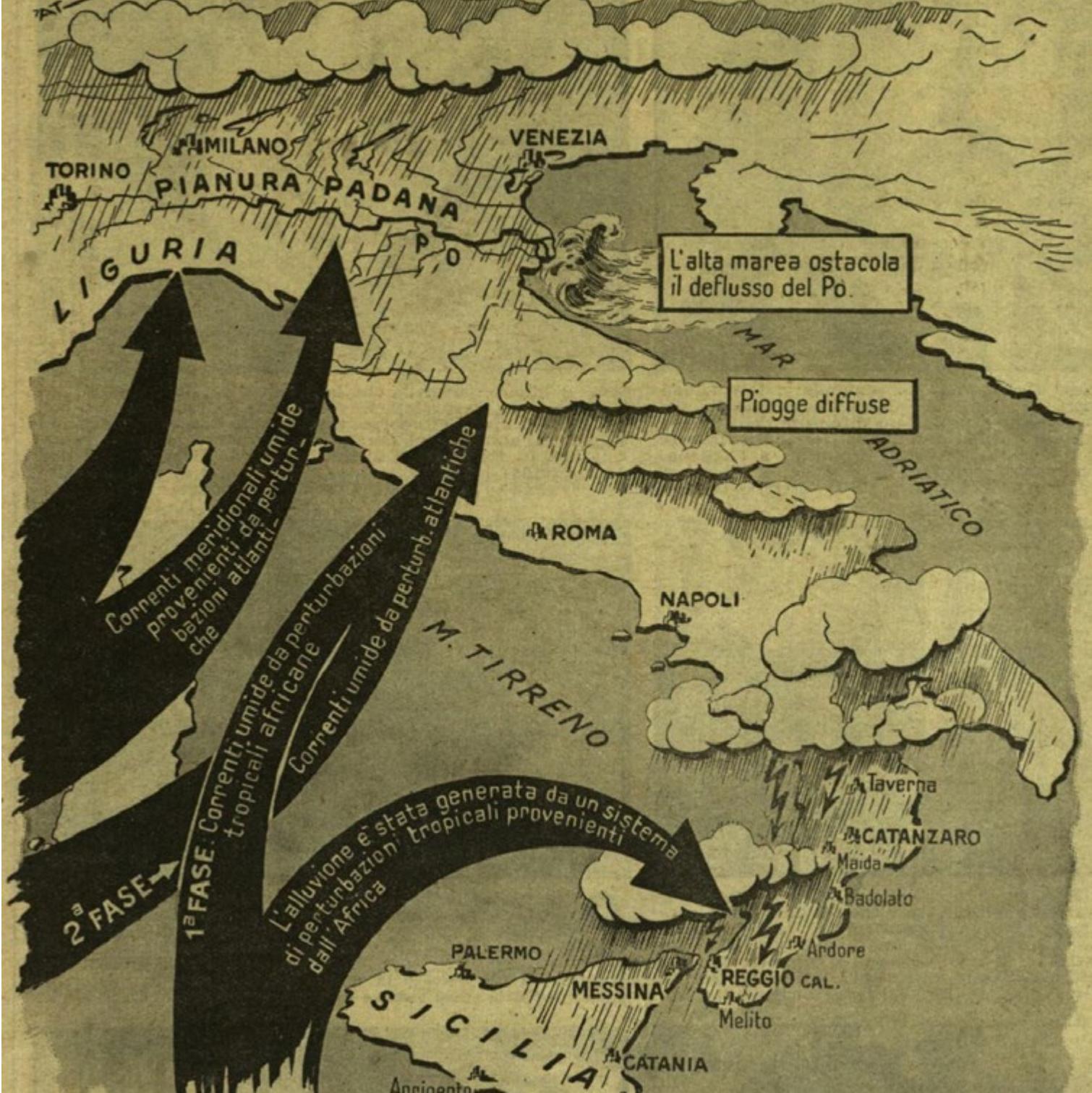
Observers and witnesses on the spot, as well as analysts and meteorologists, realized that they were facing an unusual situation. The correspondent of the newspaper «La Stampa» on 16 October 1951 wrote about «a violent thunderstorm with cyclonic character that has no precedent» with «strong wind», «violent whirlwinds» and «violent swells», and that in Africo, in the mountains of the Aspromonte, the landslide that had practically destroyed the town had been preceded by a

1. FLAOUNAS *et al.* 2022; PETRUCCI, PASQUA 2014; PETRUCCI, PASQUA, POLEMIO 2013.



Figure 1. Weather forecast for October 1951 («La Stampa», 18 October 1951).

On the next page, figure 2. Weather forecast for October 1953 («La Domenica del Corriere», 8 November 1953).



lightning storm and an «immense blast»<sup>2</sup>. The meteorologists of «*Il Corriere della Sera*» analyzing the violence of the cyclone of 1953 spoke of «abnormal rainfall» caused by «“explosive” clouds» and advanced the hypothesis that the frequency of these exceptional events could depend on the convergence of «chromospheric eruptions of the Sun» with the numerous experiments of explosion of atomic devices carried out in those years by the United States of America and the Soviet Union<sup>3</sup>. The American correspondents of the Associated Press in 1953 recorded «torrential rains which followed the cloudbursts», which «struck the mountains» and caused «floods» with «boiling waters» which produced a devastation «worst since 1908 Quake» (fig. 3)<sup>4</sup>.

In addition to a large number of victims, the damage to the territory and infrastructure was enormous. Storms and whirlwinds caused the “explosion” of the rivers and mountains. The water and mud caused floods, landslides and flooding that left dozens of urban centres unusable and thousands displaced. In 1951, some towns in the province of Reggio Calabria, already seriously affected by the earthquake of 1908, the floods of the 1920s and a territory subjected to massive deforestation in previous years, as Africo, were declared totally destroyed. The cyclone of 1953 hit a territory still devastated by the previous one and made even more difficult any intervention for the consolidation of territories<sup>5</sup>.

### *1. The “environmental catastrophe”. The Mediterranean cyclones of 1951 and 1953 and their impact on the territorial instability and political debate*

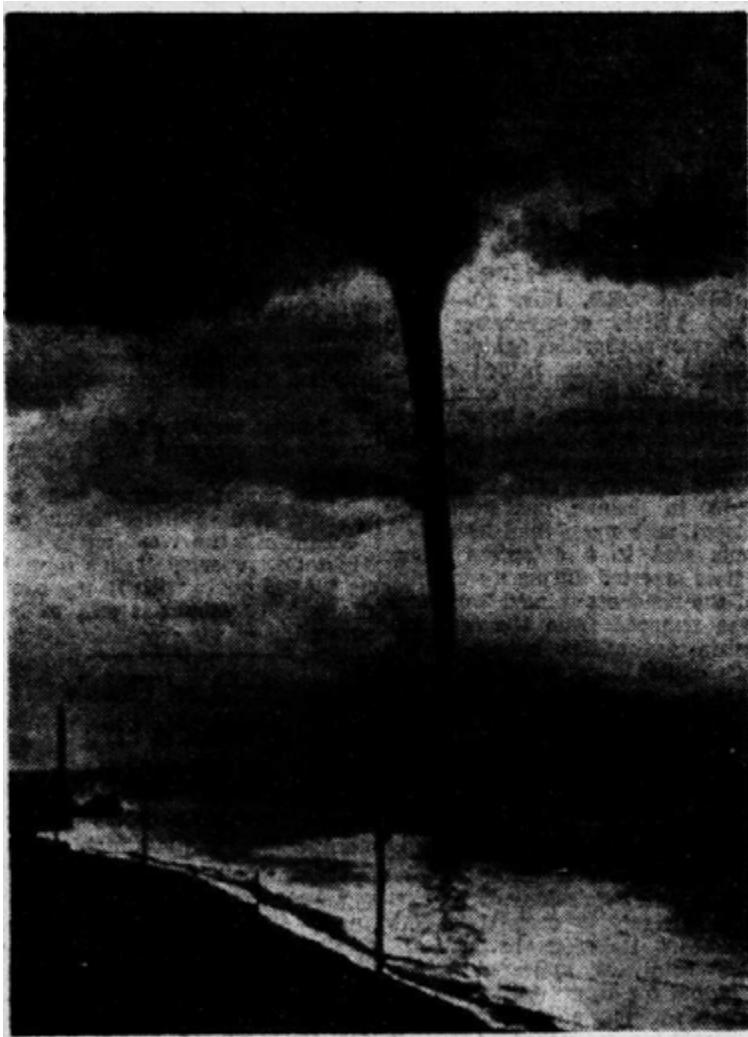
In 1951 the first intervention to face the emergency was totally borne by the small forces of the *Prefettura* of Reggio Calabria. Fire brigades, the *Carabinieri* and many civilian volunteers were in charge of rescuing the displaced and repairing the most important structures and infrastructures. The subsequent intervention of the government to send funds, equipment, materials and reinforcements of men and means of the Civil Engineering Department (*Genio Civile*) was limited by the chronic shortage of means available to the Republic in the post-war period and the immediate occurrence of the flood of the Polesine, and the main effort of the government was concentrated on the latter. In

2. *Un ciclone sulla Sicilia 1951; Tragico bilancio 1951.*

3. *Piogge che non finivano più 1953.*

4. *Rains Hit South Italy 1953; 100 Feared Drowned 1953.*

5. Archivio di Stato di Reggio Calabria (ASRC), *Prefettura di Reggio Calabria, Ufficio Provinciale di Assistenza Post-Bellica*, b. 10, f. 2, 4, 8.



**MEDITERRANEAN WATERSPOUT** — This waterspout formed itself off the Calabrian Coast near Sicily during cloudbursts which lashed Southern Italy early this month. The water front of Reggio Calabria is in the foreground. —AP Wirephoto.

Figure 3. The cyclone off the coast of Reggio Calabria in October 1951 photographed by an American photographer of the Associated Press («The Evening Star», 10 November 1951).

1953 the structure of emergency equipment was more efficient and characterized by the use of more modern means, such as helicopters, in one of the first operational uses in rescue operations of these vehicles in Italy, that was highlighted by the national press, to underline the progress of republican structures in a country that was heading towards the modernity of the “economic miracle”<sup>6</sup>.

The government intervention was added in a conspicuous way by that of dozens of private, cultural and political associations throughout Italy, the Catholic Church and various foreign governments. The National Association for the Interests of Southern Italy (*Associazione Nazionale per gli Interessi del Mezzogiorno d’Italia*) of senator Umberto Zanotti Bianco made available funds and technical for clinics, kindergartens and temporary schools, the Union of the Italian Women (*Unione delle Donne Italiane*) proposed to take charge of the housing of displaced children, the Pontifical Assistance Organization (*Pontificia Opera di Assistenza*) provided food and accommodation in the facilities of the diocese, the government of Sweden provided barracks for the temporary villages, the United States Navy sent a destroyer for the naval transports, the government of the Soviet Union sent a ship with a cargo of grain. The contest of solidarity between ecclesiastical bodies, civic associations, foreign governments and even parties, both government and opposition, was very important in cementing the national unity of Italian society in the new republican system. Especially because it was to intervene in a peripheral context of the nation that just recently had returned to the limelight of the national scene for its backwardness thanks to an extensive photographic report on the conditions of Africo by photographer Tino Petrelli published in the journal «L’Europeo» in 1948<sup>7</sup>. Solidarity, in the natural disasters of post-war Italy, was also immediately transformed into a political competition aimed at winning electoral consensus, but above all to legitimize the forces that were referring to the political-opposing ideologies of liberal democracies and Soviet communist regimes, within the two blocs of the global Cold War<sup>8</sup>.

The trips to Reggio Calabria and the affected areas of the President of the Italian Republic Luigi Einaudi and the head of government Alcide De Gasperi were nevertheless carried out with a view to affirm the stability of the republican regime and national unity and harmony in a period of strong political conflicts (fig. 4)<sup>9</sup>.

6. *Ivi*, b. 10, f. 19, 20, 21; *L'alluvione in Calabria* 1953.

7. ASRC, *Prefettura di Reggio Calabria, Ufficio Provinciale di Assistenza Post-Bellica*, b. 10, f. 7, f. 20; b. 19, f. 114; b. 24, f. 129; *Gli aiuti della Democrazia Cristiana* 1951; *I portuali di Genova* 1951; *Le autocolonne per gli alluvionati* 1952; *Tre autocolonne con aiuti* 1952.

8. BOTTA 1977.

9. *Il Presidente Einaudi in visita* 1951; *Le trionfali giornate di De Gasperi* 1952.



Figure 4. The President of the Italian Republic Luigi Einaudi visiting the flood-stricken areas in Calabria in October 1951.

## *2. From consolidation to relocation. The environmental restoration of the mountain without men and the model of urban coastal modernization*

Beyond the desired national harmony, the arrangement of territories after natural disasters fed from 1951 to 1955 a lively debate at national and local level which, while on the one hand was conditioned by ideological and political affiliations, on the other hand, it encouraged the emergence of cross-cutting positions in supporting alternative socio-economic visions<sup>10</sup>.

In the Parliament and in national political newspapers and magazines, the government and many Liberal and Christian Democrat politicians argued for the need to move all affected towns on the Ionian coast, with the construction of new settlements in a view to modernizing and increasing agricultural production of essences in the coastal plains and valleys. Many Socialist and Communist politicians agreed with this modernizing vision, but they proposed the expropriation of coastal land and the agrarian reform with the allocation of land to the inhabitants of the new towns, and the hydro-geological restoration of mountain territories, reforestation and water regulation<sup>11</sup>.

Other personalities and intellectual and political groups supported a vision already proposed by Umberto Zanotti Bianco in previous years, that of consolidating the existing settlements, restoring the hydro-geological system, developing the traditional social and economic life patterns, with the construction of facilities and the reclamation of river valleys. This view was shared by the majority of the Calabrian technicians and intellectuals, but it highlighted the development of fractures within national and local political groups. Don Luigi Sturzo and many Christian Democrat politicians from Calabria supported it against the government and the national party. One of the main exponents of Calabrian Communists, Gennaro Miceli, engineer who had worked on the reclamations of the fascist regime, and who had already proposed a government action in this direction, supported it against the national party and the Calabrian Communist deputy Eugenio Musolino, one of the most convinced supporters of the relocation of the towns on the coast. Miceli proposed that the mountain reclamation should, in addition to securing the areas, also promote the modernization of agro-forestry and pastoral activities, with new techniques for land management and forests,

10. BOTTA 2020; WESTAD 2017.

11. Atti Parlamentari della Camera dei Deputati, I Legislatura, *Discussione e votazione della legge per i danni delle alluvioni del 20 dicembre 1951*; Ivi, II Legislatura, *Discussione e votazione della legge per i danni delle alluvioni del 17 dicembre 1953*; Ivi, *Interrogazione del deputato Eugenio Musolino sulla sistemazione montana e sul trasferimento dei centri del 24 settembre 1954; I paesi minacciati dalle frane 1952*; ALICATA 1953. The Atti della Camera dei Deputati are taken from the online portal *Legislature Precedenti* of the Camera dei Deputati: [www.legislatureprecedenti.camera.it](http://www.legislatureprecedenti.camera.it).

modern machines and cooperative production institutes, coordinating the action of small owners and providing work for workers<sup>12</sup>.

The executive action of the government was accompanied by intense parliamentary activity, aimed not only at giving a strong democratic legitimacy to interventions on territories, but also at discussing and outlining a new territorial planning for the internal mountain areas of the country, in the wider plan for post-war reconstruction.

The Chamber of Deputies of the Italian Parliament set up three special committees, in the first and second legislatures, to examine, discuss and approve government measures.

The Special Commission on Flood Measures of 1952 discussed the amendment of Law no. 9 of 10 January 1952, it was mainly concerned with the damage caused by the Polesine flood and counted only three Calabrian components out of 25, Gennaro Miceli, Communist, secretary, Giacomo Mancini, Socialist, and Vittorio Pugliese, a Christian Democrat. The decision to relocate the towns was already taken here, with private construction 50 % being borne by the State and public construction of the main buildings and infrastructures. The commission amended the law by adding public construction of churches, parish buildings and schools. Deputy Miceli intervened several times against the relocation. The law was approved by a majority and the Socialists and Communists abstained<sup>13</sup>.

In 1953, after the second flood, the Special Commission for Flood Affected Areas in Calabria of 1953 was set up and had 29 members, almost all from Calabria. No member of the commission took a position against the relocation. Communist member Fausto Gullo mentioned the discussion of the problem. Liberal member Antonio Capua and Communist member Eugenio Musolino strongly supported the relocation. Law n. 938 of 27 December 1953 was passed unanimously, which restated the previous one but included the hydro-geological restoration of mountain territories. However, what was imposed was not the vision of the reclamation of the valleys in the perspective of development of territories, but that of environmental consolidation with forest restoration and water regulation, excluding any economic activity<sup>14</sup>.

12. ASRC, *Prefettura di Reggio Calabria, Ufficio Provinciale di Assistenza Post-Bellica*, b. 25, f. 138; Atti Parlamentari della Camera dei Deputati, I Legislatura, *Intervento del deputato Gennaro Miceli sullo Stato di previsione del Ministero dell'Agricoltura e delle Foreste del 1949-1950 del 24 ottobre 1949*; *Ivi, Intervento del deputato Gennaro Miceli sui Provvedimenti per le popolazioni colpite dai disastri naturali del 20 dicembre 1951*; ZANOTTI BIANCO 1954; STURZO 1951A; STURZO 1951B.

13. Atti Parlamentari della Camera dei Deputati, I Legislatura, *Legge per i danni delle alluvioni del 1951, Proposta, relazione, discussioni e votazione*.

14. *Ivi*, II Legislatura, *Legge per i danni delle alluvioni del 1953, Progetto, discussione e votazione*.

The Special Commission for Extraordinary Measures for Calabria was set up in 1955 to draw up a general action plan and included 33 members, almost all of them from Calabria. No member of the commission took a position against the move and many supported the appropriateness of a compromise measure that would have secured substantial funds to be invested in Calabria. Law n. 1177 of 26 November 1955 was approved with a single vote against, which reaffirmed the previous one but increased to 90 % the state coverage for private constructions and established the financing of a large hydro-geological restoration plan and the reforestation of mountain areas<sup>15</sup>.

After the flood of 1951, the entire population of Africo was dispersed between the barracks built in the *Lazzaretto* in Reggio Calabria, some school buildings of Bova Marina and the hotel facilities of the village of Gambarie on the Aspromonte<sup>16</sup>.

The consolidation and reconstruction of the old town were excluded from the outset. A proposal to rebuild the town in another mountain area near the previous one was strongly opposed by the municipal administration and the population of Bova, which indicated the action of the inhabitants of Africo on the mountainous territory, with the deforestation for pastures and terraces for agriculture as the main cause of the land's instability and as a danger also for Bova and the valleys below. The mayor of Bova proposed the relocation of the inhabitants of Africo in a new town at the end of the coastal valley of the La Verde river, and the seizure of the vast mountain territory of Africo, to be subjected to hydro-geological restoration and reforestation<sup>17</sup>. The conflicts between the municipalities of Bova and Africo on the competence and use of the vast mountain State territories managed in promiscuity in the modern age, dated back to at least the nineteenth century, since the Bourbon government decided to divide and disband the promiscuity in 1828<sup>18</sup>.

The unprecedented convergence between the parish priest of Africo and the communist politician Eugenio Musolino was important in the decision to move the town on the Ionian coast. The parish priest assured the willingness of the inhabitants to adhere to the proposal by sending petitions to the prefect of Reggio Calabria on behalf of the population<sup>19</sup>. Eugenio Musolino, principal representative of the Reggio Calabria section of the Italian Communist Party, interested in the works of the reclamation consortiums controlled by the party and to coordinate the union activity of the manpower employed

15. *Ivi, Legge per la Calabria del 1955, Progetto, discussioni e votazioni.*

16. ASRC, *Prefettura di Reggio Calabria, Ufficio Provinciale di Assistenza Post-Bellica*, b. 10, f. 4, 19.

17. *Ivi*, b. 15, f. 98, 99, 100, 101.

18. Archivio di Stato di Napoli (ASNA), *Ministero dell'Interno, Secondo Inventario*, b. 1842, f. 11.

19. ASRC, *Prefettura di Reggio Calabria, Ufficio Provinciale di Assistenza Post-Bellica*, b. 25, f. 138.

in the fields of jasmine on the coast, was heavily involved in national politics. In questions to the Senate he explicitly argued that the «development of the civil and economic life» of the inhabitants of Africo would only be possible by moving them to the coast in a flat area near the railway, and this would also be «convenient for the State» and the «La Verde river reclamation district». Musolino supported the need for the «exchange» of the «old flooded district» on the mountains with the new territory on the coast, which would allow «civil life» transforming the «agricultural and pastoral population» into «direct farmers» and «owners», freeing it from «deep distress» and from «idleness». The rhetoric of modernity was used to promote, through relocation, also a social transformation according to what were then shared canons of development. According to Musolino with the reclamation of the valley of the La Verde river, 400 hectares of land would have been obtained from the river bed, which would certainly have been more useful to the inhabitants than the old uneven mountainous territory<sup>20</sup>. The local newspapers also reported that the development of the inhabitants of Africo in the new territory would be ensured by the allocation of land in the valley of the La Verde river, and the spread of this news was important in favoring, at least in an initial moment, the relocation of the population to the new town<sup>21</sup>.

These local supports helped the government to move the town to the coast and to redefine the land use of mountain areas. It would certainly have been easier and cheaper to rebuild the town in the plain near the state road and railway, where it would also have been easier to control public order. The population of Africo, in fact, in previous years had given rise, for various and complex reasons, to continuous clashes with the *Carabinieri*, and in 1944 to a real revolt in which the *Carabinieri* and the authorities were forced to leave the town, that for several days was under the control of insurgent bands<sup>22</sup>.

In 1953, after a first attempt to build a new settlement on the mountain, near the old one, of which some buildings were built but without infrastructures and services, work began on the construction of Africo Nuovo on the coast. The development of the new town was very slow and until 1955 only the streets, a few houses, the church and the parish, to which the function of the school was entrusted, and the aqueduct were built. The population was gradually concentrated in the new

20. Atti Parlamentari del Senato, I Legislatura, *Interrogazione del senatore Eugenio Musolino sul trasferimento di Africo del 25 marzo 1952*; Ivi, *Interrogazione del senatore Eugenio Musolino sul trasferimento di Africo del 31 ottobre 1952*. The *Atti Parlamentari* are taken from the online portal of the *Senato*: [www.senato.it](http://www.senato.it).

21. *Assicurato l'avvenire* 1953.

22. PARISI 2021.

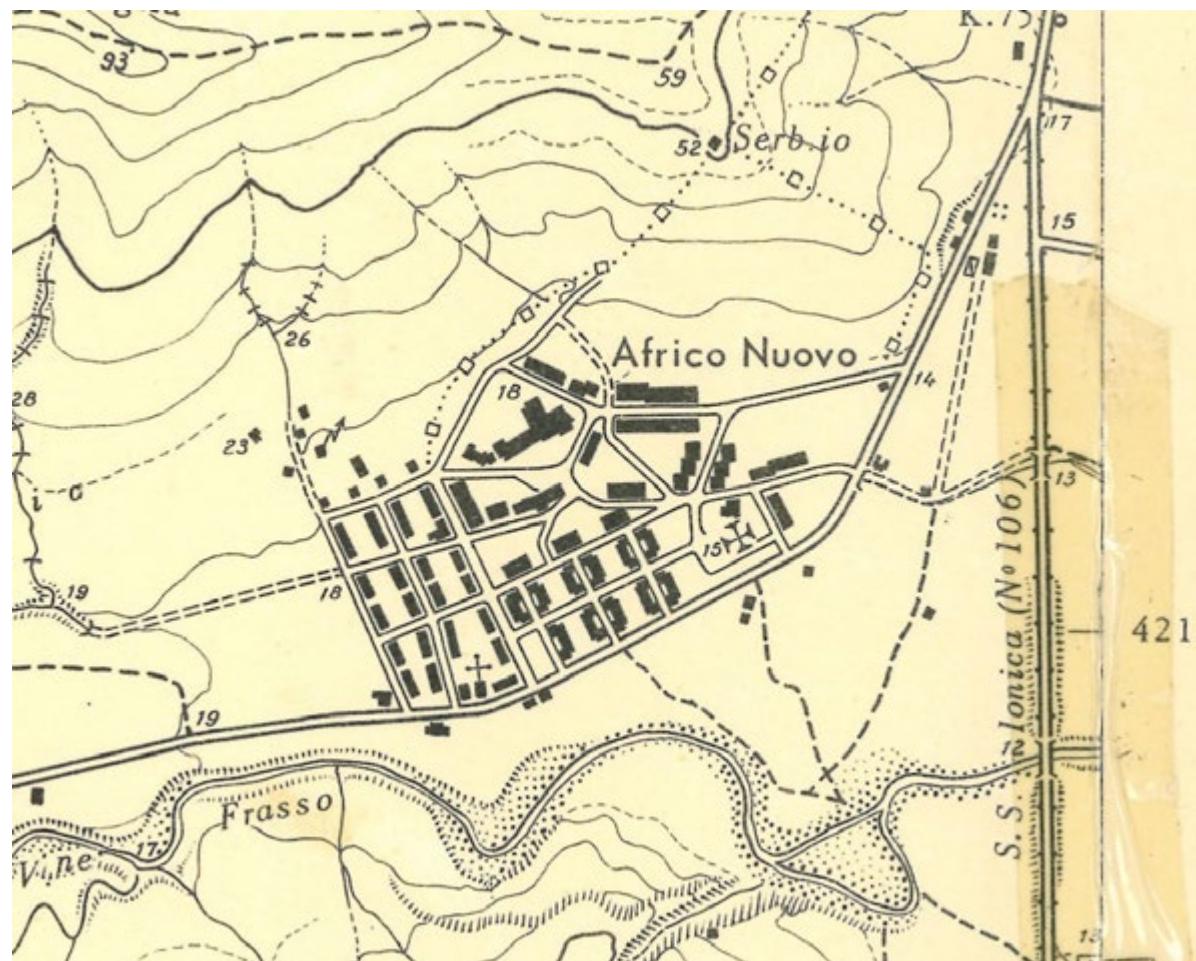


Figure 5. Africo Nuovo (the «Carta d'Italia» of 1960).

town and was mostly housed in temporary barracks. Only in 1955, when the 90 % contribution was paid, the construction of new houses began, and only in the following years the construction of the town hall and other public buildings began. In 1964 many families were still living in the barracks built by the Swedish government, which were also damaged, despite the fact that since 1961 the government have allocated funds for the construction of public housing. It was only in 1966, with the work of the Minister of Public Works, the Calabrian Socialist Giacomo Mancini, that the barracks were dismantled and the families were housed in public housing (fig. 5)<sup>23</sup>.

### *3. The difficult environmental adaptation of Africo Nuovo. Resistance, insurgencies, agricultural exploitation and assistance*

Both before the decision to move the town and during the construction of Africo Nuovo, numerous forms of opposition and resistance to the population's displacement emerged. These forms, which led to the formation of collective action groups, developed through multiple forms. In any case they were motivated, besides the will to not abandon the old place of the town, also above all by the need to be close to the places where they exercised their activities related to pastoralism and mountain agriculture, expression of the construction over time of a deep environmental link between the community, the urban centre and the territory, in a system not in line with the trends of the time, but nevertheless harmonious<sup>24</sup>.

The numerous petitions sent to State authorities testify the willingness of the population to stay in the old town to rebuild or to move to a new town in the mountain area in contact with the activities of agro-pastoral economy. Petitions were in several cases sent by individuals with their families, such as that of Pasquale Favasulo, sent on 15 July 1953 to the prefect of Reggio Calabria, asking for help to rebuild his house near the old town and its activities, so that he could return from France, from the industrial department of the Moselle, where he had emigrated with his family to work as a labourer. The resistance to relocation was always motivated by the problem of work, which was perceived as difficult in the new territory. On 26 January 1954, Giovanni Marti

23. ASRC, *Prefettura di Reggio Calabria, Ufficio Provinciale di Assistenza Post-Bellica*, b. 15, f. 98, 99, 100, 101; *Ivi, Genio Civile di Reggio Calabria, Opere di trasferimento e consolidamento abitato*, b. 13, 32; *Atti Parlamentari della Camera dei Deputati, IV Legislatura, Interrogazione del deputato Adolfo Fiumanò sulla situazione delle abitazioni di Africo Nuovo del 22 giugno 1964; Ivi, Interrogazione del deputato Adolfo Fiumanò sulle abitazioni di Africo Nuovo del 19 dicembre 1966.*

24. TETI 2014. On the collective action groups see OLSON 1965; HARDIN 1982. On the relationship between urban centres and territory in environmental history see SANSA, MILITELLO 2024; HAUMANN, KNOLL, MARES 2020.

sent a petition to the prefect asking for the possibility of returning to the old town because in the new one life was assured only by subsidies and government assistance, mostly insufficient, that his son had to leave to work as a construction worker, while in the old town he could return and work with his father<sup>25</sup>.

Many other petitions were collective, signed by dozens of individuals on behalf of their families, and are the most obvious testimony to the formation of collective action groups that acted for the restoration of the community. In these forms of public action, it is evident that the link between social groups and territory, in the sense of a claim to institutional identity belonging and the use and management of commons such as pastures and municipal forests, led to the emergence of a political collectivity<sup>26</sup>. On 12 August 1953, 72 individuals from Africo on behalf of their families presented to the ministers of the Interior, Public Works, Agriculture and Forests, and to the prefect of Reggio Calabria the two points of their request, that is the reconstruction of the town «in the original territory of the Municipality» and the exclusion of the forest land from the prohibitions to economic activities provided for by the law on mountain reclamation, because in the new territory «it is impossible to ensure work to procure the necessary means of subsistence» and «they see no possibility of life for the present or the future» besides «the misery in which the whole population will find itself»<sup>27</sup>. On 10 October 1953 another collective petition sent to the Minister of the Interior and the prefect signed by 35 individuals with their families noted that they had agreed to move to the new town for work opportunities and health care, but that being the untenable situation they asked to return to their lands or to move to another territory on condition that they were given a house and an extension of land<sup>28</sup>.

The expression of the will to settle in the old place was also manifested in extra-legal ways by the return to the unusable town of single families and groups, and there were acts of resistance and attacks on the forces of the *Carabinieri* sent to carry out the evictions, such as those of 5 families who in 1958 declared to the commander of the *Carabinieri* not wanting to leave their precarious homes, and to receive funding to rebuild them in the town<sup>29</sup>.

25. ASRC, *Prefettura di Reggio Calabria, Ufficio Provinciale di Assistenza Post-Bellica*, b. 25, f. 139.

26. OSTROM 1990; DE MOOR 2008.

27. ASRC, *Prefettura di Reggio Calabria, Ufficio Provinciale di Assistenza Post-Bellica*, b. 25, f. 138.

28. *Ivi*, b. 25, f. 139.

29. *Ivi*, b. 25, f. 156.

Other symbolic gestures aimed at the same purpose, such as the refusal by the inhabitants to go to the municipality of Bianco provisionally for documents, and the will to keep open the municipal office in the old town until the end of 1954, despite the great distance from the coast<sup>30</sup>.

The social and economic situation of Africo Nuovo led to growing instability and political radicalization until the end of the 1950s<sup>31</sup>. The possibility of obtaining hundreds of hectares of land from the reclamation of the bed of the La Verde river did not occur, and indeed the territory was excluded from the agrarian reform for Calabria. The only job opportunities, besides emigration, which was increasingly important, were offered by seasonal hires as workers of the consortium for the hydro-geological and forestry restoration of mountain areas and as workers of the school-yards for public works, and the possibility for women to work as farm labourers in the estates of jasmine plantations for essences. Wages and working conditions favored the expansion of trade union activity and participation in the Italian Communist Party, with the creation of the local federation and a massive increase in votes at national and local elections. The strikes and trade union agitations of the labourers and also of the numerous unemployed, organized spontaneously and by individual militants rather than coordinated by the party and trade union structures, caused repeated occupations of the highway and railway and frequent clashes, even violent, with the *Carabinieri*. These direct and extra-legal actions, aimed not only at affirming the right to work in the new territory, but also the control of the city administration, led to popular movements to claim "from below" a political community<sup>32</sup>. Women were in the front line of these movements, as on 4 July 1956 when 300 people gathered in the streets and occupied the town hall, setting up a commission of 10 members, including two women, who asked the prefect of Reggio Calabria to remove the prefectorial commissioner, accused of not dealing with the problems of the town and even having underestimated the conditions of the population with the authorities, and the employment of 130 workers laid off by the reclamation consortium. The intervention of the *Carabinieri* repressed the agitation, and the authorities promised to take the requests into account. The situation did not improve, however, and a few days later, on 8 July, «women and children» led a demonstration of 150 people, workers, labourers and craftsmen who occupied the railway

30. *Ivi*, b. 25, f. 157.

31. STAJANO 2015.

32. DE MOOR 2008. A previous case of popular political movement on the territory had occurred in the "republic" of Caulonia in 1945; MISIANI 1994.



Figure 6. A demonstration by women farm workers of the jasmine fields of the Ionian coast of Reggio Calabria («L'Unità», 10 August 1966).

to protest against the «poverty and unemployment» of the population, and was removed after clashes with the *Carabinieri* of Africo Nuovo, Bianco, Bovalino and with the police of Locri (fig. 6)<sup>33</sup>.

The state of social tension was partially reduced by the mass hiring of forestry workers with the start of the hydro-geological reclamation works of the mountains and coastal valleys following the special law for Calabria of 1955, but government assistance policies certainly did not have a structural effect on the development of the new territory. The case of the school-yard for the road from the town to the railway station, which employed hundreds of workers for several years to build a road of some hundred meters is emblematic of the futility of these policies, and served only to train workers who got the job by emigrating in Italy and abroad<sup>34</sup>. The transformation of the community's environmental context, which in the light of urban and economic modernization had not taken into account the territorial vocation of the population, in the short and long term determined that, as the inhabitants themselves wrote in their petitions, «the results of the experiment» had not had the desired effect<sup>35</sup>.

33. ASRC, *Prefettura di Reggio Calabria, Ufficio Provinciale di Assistenza Post-Bellica*, b. 25, f. 155.

34. *Ibidem*; Atti Parlamentari della Camera dei Deputati, II Legislatura, *Interrogazione del deputato Eugenio Musolino sull'apertura di un cantiere di Africo Nuovo del 18 gennaio 1956*.

35. ASRC, *Prefettura di Reggio Calabria, Ufficio Provinciale di Assistenza Post-Bellica*, b. 25, f. 139.

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# LOST AND FOUND

Processes of abandonment of the architectural and urban heritage  
in inner areas. Causes, effects, and narratives (Italy, Albania, Romania)



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Marco Mareggi (Politecnico di Milano), Rosa Maria Rombolà (Politecnico di Milano)

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# A History-based Description of the Territories of Abandonment between Grecanico and Locride in Calabria

Marco Mareggi, Rosa Maria Rombolà

A recent study on Italy between crisis and opportunities, sketches a general map of the country that, albeit provisional, identifies six crisis and contraction typologies<sup>1</sup> utilizing two investigative approaches: the aerial view of the territory and the on-the-ground exploration, attempting to intertwine physical-morphological, demographic, and socio-economic data. In this interpretive geography of the *Bel Paese*, southern Calabria is highlighted for two typologies. On one hand, a line along the Ionian coast characterizes the coastline consumed by low-quality urbanization and sparse mass tourism exploitation, while on the other hand, internal mountainous areas denote a widespread phenomenon of abandonment of highlands and villages.

We will focus on this second territorial scope where, according to the authors, there is an ongoing crisis in the agro-silvo-pastoral economy. This prolonged economic condition is compounded by specific calamitous phenomena (earthquakes, floods, and historically, invasions or endemic factors)

1. The six typical situations of crisis and contraction on the map of the Italian peninsula, produced by A. Lanzani and F. Curci (2018) within the associative network Riabitale l'Italia, are as follows: abandoned hillside villages and lands (far from tourist excellences); saddened valley floors, foothills, and basins (after growth with little development); depopulated productive countryside (continuing depopulation); crisis-hit diffuse and district urbanizations (difficult to restructure); coast consumed by low-quality urbanization and mass tourist exploitation; fragile urban peripheries and interstices (small towns, industrial cities, peripheries of the South). LANZANI, CURCI 2018.

which are quite significant in the Calabrian context<sup>2</sup>. Internationally, scholars<sup>3</sup> consider the decades-long population decline as the predominant cause/effect of urban abandonment and shrinkage. From a spatial perspective, the progressive absence of humans leads to a gradual decline in caring for the territory, both in terms of crops and built heritage, both of which are underused or abandoned<sup>4</sup>. In Southern Italy, anthropological<sup>5</sup> and territorial<sup>6</sup> research vividly portrays this condition, particularly emphasizing the relevance within the Calabrian, especially southern, context. «Partially or completely abandoned cities exist in all Italian regions. In Calabria, the phenomenon is more extensive and more pronounced than elsewhere»<sup>7</sup>. According to Vito Teti<sup>8</sup>, «the abandonment of inner villages [...] is a constant in Calabrian history, well-documented in modern and contemporary times». This «historical constant» of the Calabrian territory «sometimes goes through periods of intensification: Roman conquest, the crisis of the 14<sup>th</sup> century, the earthquake of 1783, the era of major social transformations in the 20<sup>th</sup> century. But in some cases, the phenomena concentrate in specific areas. This is what is happening in the Grecanica area», which indeed «can be considered paradigmatic to illustrate the entire phenomenon of abandoned cities in Calabria»<sup>9</sup>.

Again in relation to this southern tip of the peninsula, a series of words emerge, labeling these smaller historic urban agglomerations as *presepi* (nativity scenes), ghost towns, villages, or more broadly, hamlets. This semantic delineation is significant, specifying both connotative aspects of the place and peculiar vocations. The first term, *presepi*, emphasizes both the physical-morphological characteristics of perching on mountains or hills and the spectacularization of the anthropic landscape<sup>10</sup>; the second, "ghost town", allusively evokes haunting places, a repository of remains and ruins, material remnants devoid of life<sup>11</sup>. Lastly, villages underscores the value of memory and identity of a community settled in a place, enduring beyond continuous presence in the daily lives

2. COLISTRA 2001.

3. Among others: OSWALT 2005; PALLAGST, WIECHMANN, MARTINEZ-FERNANDEZ 2014; MAREGGI 2019.

4. GIOFFRÉ 2017.

5. CLEMENTE 1997; TETI 2004, 2017.

6. PEDIO 1990; COLISTRA 2001.

7. GIOVANNINI 2001, p. 7.

8. TETI 2017, p. 55.

9. ARENA 2001, p. 85.

10. SORIERO 1985.

11. BENGTSSON 1977.

of people<sup>12</sup>. This is a rich lexical articulation that broadens the ongoing discussion in the political and media discourse, predominantly focused on the tourist valorisation of hamlets which, in common ground even in international contexts, characterizes “beautiful Italy”.

For the significance of the phenomenon and the astuteness of studies conducted over time, it is interesting in Calabria to highlight a less recurring and explicitly studied aspect of the village abandonment phenomenon. This aspect involves physical settlements relocating elsewhere from their original geographical location, carrying with them name, institutions, and memories. The focus here is not so much on the migration of individuals and families but on the "migration of physical settlements". This is what central governments refer to as "relocation of settlements", when they issue legislative decrees after catastrophic events such as earthquakes and floods. This peculiar "geographic mobility" of human settlements with their inhabitants, giving rise to new urban centers, is defined in Calabria as the phenomenon of "filiation" of new centers, also referred to as "twin" or "double"<sup>13</sup>. For example, on the Ionian coast facing Africa, Bova is situated in the heights and is the central place of the Grecanic culture, while its twin and subsequent counterpart, Bova Marina, is the settlement of seaside houses established since 1905<sup>14</sup>. The twin towns are not always necessarily the result of an abandonment of the old for the new; sometimes, they are a duplication that keeps both settlements functioning. This is true, for instance, in the case of the aforementioned Bova and Gioiosa, as well as for many others.

However, it should be noted that there is another meaning of duality. It relates to the mass emigration abroad of entire fragmented communities. V. Teti<sup>15</sup> indeed points out that, in addition to internal to Calabria, there is a duality elsewhere, far away, where double of the original towns arise in the Americas, Australia, France, and Germany. The research conducted here remains within the Calabrian territory. The author believes that the geography of these relocations can be summarized

12. The reflection of anthropologists and researchers who have delved into this issue in Calabria anticipated by over twenty years the heated discussion that opened up in Italy around the 2020s, with the introduction of the term "borgo" (hamlet) in various public policies (for example, the *Bando Borghi*, "Hamlet call" funded through the Recovery plan) (MAREGGI 2023), where a prevailing interpretation sees small historic centers primarily as subjects of tourism valorisation policies, compared to a growing cultural and intellectual movement (BARBERA, CERSOSIMO, DE ROSSI 2022) that favours the use of the term paese (village) to enhance self-determination and living in the everyday life and continuity of the micro-centers spread across the territory. CLEMENTE 1997; TETI 2004; OTERI, SCAMARDÌ 2020.

13. MELELLI 2004.

14. CARIDI 2013.

15. TETI 2017.

in four modes of movement and geographical relationship between the old and new settlements.

Firstly, the predominant transfer is from the mountains to the sea, giving rise to the phenomenon of the “marine”<sup>16</sup>. It involves a “descent to the valley and along the coast of settlements”<sup>17</sup> from the mountains due to a multitude of rapid and sudden factors (environmental or human-made catastrophes) or slow and long-term factors (when the land no longer produces enough, leading to endemic poverty and emigration, or due to inaccessibility of the areas)<sup>18</sup>. The exodus from the mountains in Calabria is a long-term phenomenon, as recalled by Marcello Sernini<sup>19</sup> in the Itaten research on the transformations of the Italian territory conducted in the 1990s on behalf of the Italian Ministry of Public Works. These are transfers of settlements and populations named differently, referring to their transformative nature, by Lucio Gambi, in the XVI volume of the Utet *Le Regioni d'Italia* series, as «a descent toward the coast» or «a society descended from the mountains», or «a descent to the plain»<sup>20</sup>. The proximity to the coast, in many cases, occurs along the same riverbed of a stream and within the same municipal territory. This duplication can be not far, as in the case of Brancaleone and its marina, or rather distant, as in the case of Gioiosa, where the center perched on Aspromonte sees its twin, Marina di Gioiosa, about 5 km away, at the end of the valley road.

As Vito Teti<sup>21</sup> reminds us, «from the end of the 18<sup>th</sup> century, the slow repopulation of the marine areas, previously malarial and uninhabited», began creating the “twin towns” compared to the internal mountainous ones, which, definitively abandoned, transformed into “ghost villages”, “dead towns” and places of memory. The phenomenon intensified in the 20<sup>th</sup> century following the earthquakes at the beginning of the century in 1905 and 1908 and after the floods and hydrogeological disasters in 1951, 1953, and 1972-1973<sup>22</sup>.

At times, the transfer leads to the birth of new town founded kilometers away from the original locations, usually toward the coast and outside the administrative boundaries of the municipality

16. KISH 1953.

17. The expression is used by the geographer and politician Francesco Compagna (1960), as cited by A. Lanzani (2003), and pertains specifically to the context of Southern Italy and the rapid urbanization along the coast and in the valley floors.

18. NUCIFORA 2001.

19. SERNINI 1996.

20. GAMBI 1965, pp. 243-244.

21. TETI 2017, p. 125.

22. With various connotations and consistencies, including ruins, these are: Roghudi Vecchia, Africo Vecchia, Brancaleone Vecchia, Pentedattilo, Amendolea, Casalnuovo, and Bruzzano Vecchia.

to which the abandoned center belongs. A true relocation. This occurs in decisions that follow catastrophic events, such as floods, with the specific function of accommodating the relocation of the entire population from mountain villages, whose homes are declared uninhabitable or unsafe. A very well-known example – thanks to the investigations by Umberto Zanotti Bianco<sup>23</sup> and Corrado Staiano<sup>24</sup> and the novels by Costantino Criaco<sup>25</sup> – concerns the settlement of Africo Nuovo that arose starting from 1955 in the territory of the Municipality of Bianco. More recent is the case of Roghudi Nuovo, which was established only in 1988, 18 years after the evacuation of the old village perched on a ridge between two streams and almost inaccessible. The new settlement was built 40 km away from the old one, in the municipal territory of Melito di Porto Salvo, along the coast. In both cases, there were forced evacuations, decided following tragic floods and subsequent measures by the national government.

At other times, the transfer occurs near the old settlement, thus not leaving the mountain contexts, as in the case of Pentedattilo, which, already after the earthquake of 1786, saw the king approve a relocation project, but it was blocked by baronial families. The subsequent earthquakes of 1908 and the flood of 1951 decreed the progressive depopulation of the village, whose buildings were declared uninhabitable and unsafe in 1968. In 1971, it was abandoned in favour of Pentedattilo Nuova, built in a flat area, only a few hundred meters from the old center<sup>26</sup>.

Lastly, it's worth mentioning the creation of twin settlements uphill. The new homes are placed on plateau terrains at a different orographic situation compared to the steep slopes typical of the old crib-like villages. The move to a "higher" location compared to the existing center is recognizable in the case of Nardodipace, which is moved to the Ciano plateau (1100 m.), more suitable for those who wanted to stay and continue farming, not too far from the old site. The new settlement is named Ciano di Nardodipace or Nardodipace Nuova or simply Ciano. The same choice of moving uphill was made for Canolo, which, after the flood of 1951, began the construction of the new town at around 900 m. in the Melia plains, in the mountains.

On this rich panel of experiences and reflections on the abandonment of small centers, the in-depth analysis conducted in relation to southern Calabria is superimposed and presented in this article, developed within the *Lost and Found* research funded by the Department of Architecture

23. ZANOTTI BIANCO 1959.

24. STAIANO 1979.

25. CRIACO 2002.

26. TETI 2014.

and Urban Studies (DASTU) of Politecnico di Milano, within the Riba program (2021), which aims to investigate the processes of abandonment of architectural and urban heritage in inner areas, exploring their causes, effects, and narratives in three European countries (Italy, Albania, Romania).

As mentioned, this in-depth analysis interprets the history-based approach to the abandonment phenomenon proposed by the Riba *Lost and Found* research, focusing on documentation through cartographic images or accounts of experiences or direct drawings by those who have crossed or lived in these places. Methodologically, the territory or its portions are reinterpreted through historical geography, geostoric GIS systems, travel diaries and drawings, anthropological representations that also emphasize the oral transmission of stories, and to a partial extent, the history of the city and the territory. This sets it apart from historical approaches related to archival documentation or material traces (present in other contributions in this volume) and from approaches that draw general and large-scale maps of the layout and transformations of the territory, focusing on both physical forms and demographic and socio-economic aspects, as in the research on Italy in contraction mentioned at the beginning of this contribution.

The objective of the work presented here is not so much an original and systematic reading of the territory under consideration but rather to verify the effectiveness of the identified cartographic research and storytelling tools to deepen the understanding of the diachronic transformations of urban, rural, and infrastructural landscapes. The analyses conducted and subsequently presented in original cartographic elaborations and in the texts focus on southern Calabria, involving the Locride and the Grecanico area<sup>27</sup>. The first area, the Locride, concerns the southeast coast and inland of the region and the city of Locri is its hub; while the second, the Grecanico area, is a triangle that touches the Ionian coast facing south and goes up the slopes, assuming the name in relation to the continued local use of the ancient Greek language in modern times. Both territorial areas are slopes of Aspromonte, which extends to the coast. The cartographic elaborations and reflections conducted focus on different portions of the territory, depending on the availability of cartographic documentation or historical accounts, and to emphasize specific themes.

27. The two territorial areas of Locride and Grecanico represent a geography that assumes different administrative boundaries depending on the governing tool being considered. They are indeed two territorial areas within the Metropolitan City of Reggio Calabria (2016), which the Statute of the entity names but does not delimit within a physical geography. Conversely, they are two fields of intervention within the European-relevant Leader program, which defines two specific Local Action Groups, LAG, one for each area (see: [www.galareagrecanica.it](http://www.galareagrecanica.it); [www.galterrelocreidee.it](http://www.galterrelocreidee.it)). It's worth noting that at the national level, the Grecanico area is recognized as a strategic and project-funded area under the National Strategy for Inner Areas 2014-2020; [www.comune.bagaladi.rc.it/index.php?action=index&p=1&art=440](http://www.comune.bagaladi.rc.it/index.php?action=index&p=1&art=440) (accessed 2 December 2024).

The following text first presents the working method that emphasizes the use of historical maps and diaries (text and sketches) and a georeferenced redesign of thematic maps. Subsequently, at the scale of southern Calabria, the research delves into, on the one hand, geomorphology and the water system starting from the Geographic Atlas of the Kingdom of Naples from 1788-1812 and, on the other hand, the landscapes traversed by the Englishman Edwar Lear (1847) in comparison with the Austrian map of the Kingdom of Naples from 1847. Lastly, the comparison between the aforementioned historical cartography and the Regional Technical Map, CTR, from 1954 allows for a reinterpretation of the genealogy of the road layout that reconnects the hill and mountain villages with the coast. In conclusion, the valuable aspects of historical GIS are emphasized.

### *1. Towards a Geo-Historical Understanding of Abandonment: From the Study of Historical Cartography and Travel Diaries to the Use of GIS Technologies*

The study of the territory and landscape intertwines a broad range of disciplines, starting from history and geography to environmental, socioeconomic, urban planning, and engineering sciences. Specifically, historical cartography is a useful tool to understand the image that geographers, topographers, and travellers have transmitted of a territory. The use of historical cartography applied to the study of the territory cannot overlook scientific methods and research approaches such as critical examination, contextualization, and exegesis of each document, methods refined not only by historical sciences but also by geographical-historical sciences, starting from the fundamental contributions of Lucio Gambi<sup>28</sup>. This presupposes the need to contextualize the cartographic document, the rejection of the evolutionary conception of the history of cartography, and the importance of studying the biographies of cartographers<sup>29</sup>.

Up until the 17<sup>th</sup> century, there are cartographies that present significant geometric distortions resulting from empirical surveying methodologies, with surveys based on observations lacking the necessary mathematical requirements; «requirements that began to assert themselves in the Enlightenment and spread widely only from the Napoleonic era»<sup>30</sup>.

The complexity of contemporary landscapes requires the experimentation of new cartographic practices capable of effectively implementing readings and representations based on

28. GAMBI 1987.

29. GUARDUCCI 2018.

30. ROMBAI 2018, p. 80.

interdisciplinarity and both spatial and temporal transscalarity<sup>31</sup>. Among them, the use of Geographic Information Systems (GIS) is now a consolidated practice in research for all disciplines dealing, in various capacities, with the study of spatial and territorial phenomena, as one of the most effective tools for data management and analysis<sup>32</sup>.

The advantages of using these technologies for history-based studies on the territory are evident in their ability to locate and relate historical, geographical, and socioeconomic phenomena that would otherwise be difficult to analyse due to their heterogeneity and distance, both physical and temporal. With this approach, it is possible to relate historical cartography, as well as textual and iconographic sources, to recent cartography, aerial and satellite photos, as well as vector data from implementable and also available online databases. Using these tools, it is possible to achieve a geo-historical understanding of abandonment phenomena, highlighting how geomorphology, hydrography, and accessibility have influenced the abandonment/relocation of settlements.

In summary,

«Historical GIS can be defined as interdisciplinary research projects that integrate the most advanced methods and tools of geographic information sciences with the sources and questions of geo-historical and historical research, in order to emphasize the importance of spatial contexts and relationships for understanding historical dynamics or for studying the landscape/territory as a product of relationships between the measurements of its space and the events of its past»<sup>33</sup>.

In the research presented here, the historical cartographies and selected documents to analyse the described phenomena are: the Geographic Atlas of the Kingdom of Naples (1788-1812), the Austrian Map of the Kingdom of Naples (1812-1847), and the Diary of the journey on foot that Edward Lear undertook from July 25 to September 5, 1847.

### *1.1 Geomorphology and Water System in the Geographic Atlas of the Kingdom of Naples (1788-1812)*

In April 1781, Ferdinand IV of Bourbon entrusted the Paduan military geographer Giovanni Antonio Rizzi Zannoni with the task of creating a systematic cartography of his kingdom<sup>34</sup>. The Geographic Atlas of the Kingdom of Naples, published between 1788 and 1812, resulted from

31. DEMATTEIS 2010.

32. COPE, ELWOOD 2009.

33. GRAVA *et al.* 2020, p. 3.

34. VALERIO 1993, pp. 78-98.

angular and astronomical observations and the measurement of a geodetic baseline<sup>35</sup>. It consists of 32 copper-engraved sheets at a scale of 1:110,000<sup>36</sup>.

Calabria is included in sheets 25 to 31. The research focuses on the areas represented in the following sheets: 29\_2; 31\_1; 31\_2; 31\_3; 31\_4; 31\_5; 31\_6; 31\_7; 31\_8; 31\_9.

The Atlas allows for a detailed examination of the topographic features and hydrography of the study area. It provides intricate details about the territory's orography (mountainous and hilly regions) and the water system (rivers, streams, torrents, canals, and ditches). The Atlas stands out for its geometric content and the depiction of orography, which is represented through a perspectival shading technique achieved by alternating between oblique and zenithal light, integrating the scientific method of measurement with the artistic method of perspective<sup>37</sup>.

The accompanying toponymy is highly detailed and highlights the complexity of the geomorphological system, distinguishing between mountains, hills, ridges, coasts, crests, and peaks. For example, "Cima di Monte Alto (1,955 m a.s.l.), the highest point in Aspromonte" is mentioned. The water system includes existing watercourses, lakes, and marshes. It depicts riverbeds, streams, and canals, often indicating their names, origins, tributaries, and mouths.

Concerning the representation of inhabited centers, it locates clusters comprising more than three houses, typically drawn according to their actual form, and indicates main roads, castles, and religious buildings. However, industrial facilities, commercial structures, and communication routes between different settlements are not represented. The only road depicted is the carriage road along the coast, punctuated by guard towers that have been in use since the 16<sup>th</sup> century for monitoring and signaling Turkish raids. Many areas near the coast are marked as marshland, evidently unhealthy areas requiring reclamation efforts.

Overall, the map describes a mountainous and hilly territory rich in hydrography, with very few carriage roads. Small inhabited centers conform perfectly to the terrain, clinging to hilltops or at the feet of hills and mountains. These are small communities practice pastoralism and rudimentary agriculture, with limited connections to neighbouring villages and facing inland, with their backs to the sea<sup>38</sup>.

The map highlights the peculiarities of some inhabited centers of interest in the *Lost and Found* research. It reveals the specificity of Ferruzzano, located on the ridges. Bruzzano Vecchia, Motticella,

35. *Ivi*, pp. 124-147 and 211.

36. GAMBI 1965.

37. ROMBAI 2018, p. 83.

38. GAMBI 1965.

and Bruzzano Zeffiro are depicted near the Bruzzano riverbed and other small watercourses. Africo and Casalnuovo are enclosed/isolated by Mount Scapparone (1,058 m a.s.l.), the mountains of Previtoria (Aspromonte ridges), and Mount Verde, while an Aposcipo tributary flows through the valley. Further north, the Novito riverbed shapes the landscape around Canolo.

## 2.2 Landscapes Explored: A Comparison between Lear's Drawings and Travel Diary (1847) and the Austrian Map of the Kingdom of Naples (1847)

In 1821, Austrian troops occupied the Kingdom of Naples and remained there until 1826. During this period, Austrian officers carried out a revision of Rizzi Zannoni's map, adding original drawings on 76 sheets mounted on canvas at a scale of 1:121,000. Later, this map was updated with the road network until 1847.

Southern Calabria, the focus of this research, is present in the following sheets: Section 14 Column VIII. Portion of the Province of *Calabria ulteriore* I° and II°; Section 15 Column VI and VII. Portion of the province of Calabria ultra 1 and Valdemone; Section 15 Column VIII. Portion of the province of Calabria ultra 1°.

Compared to the previous version, the 1847 map includes roads and pathways, categorized into natural and navigable. The latter are further subdivided for horses, pedestrians, and sheep tracks. Regarding the agricultural landscape, the map depicts primary crops such as vineyards, meadows, forests, and olive groves.

In 1847, Edward Lear, an English traveller, embarked on a walking journey through Calabria from July 25 to September 5. In his diary, he describes the landscape and living conditions of the region's population. Lear, accompanied by a fellow traveler, a local guide, and a horse, started from Reggio Calabria, reached Bova, and proceeded to the convent of Santa Maria di Polsi.

Figure 1 depicts the route taken to Bruzzano, passing through Motta San Giovanni, Bagaladi, San Lorenzo, Condofuri, Amendolea, Bova, Palizzi, Staiti, Bruzzano, and Ferruzzano. While the descriptions of events are fictionalized, and the names of the encountered individuals are often altered, Lear's sketches are notable for representing entirely unknown places. This is because most Grand Tour travellers frequently bypassed Calabria, traveling directly from Naples to Sicily.

Analysing the views, the execution technique, and the perfect alignment with the diary's pages struck, in addition to the nearly "photographic" description of the places visited<sup>39</sup>.

39. GAETANO 2023.

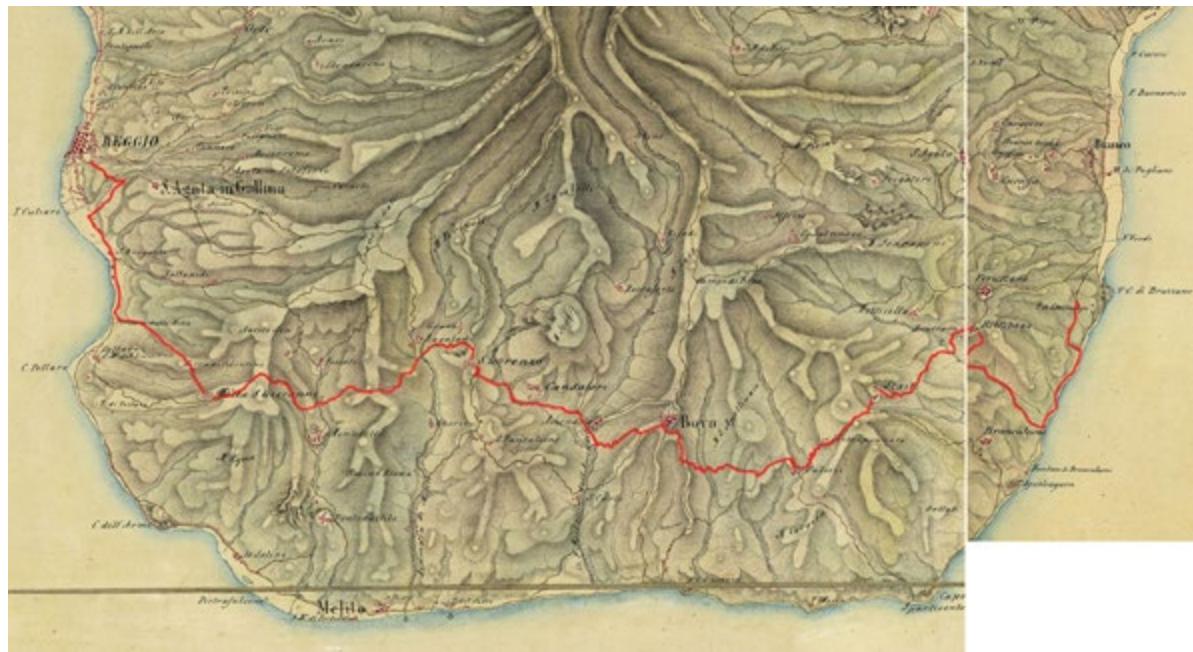


Figure 1. Edward Lear's walking path traced on the Austrian Map of the Kingdom of Naples, 1847; <https://anticabibliotecacoriglianorossano.it/mappe-e-carte-geografiche/carta-austriaca-del-regno-delle-due-sicilie> (accessed 2 December 2024) (elaboration by R.M. Rombolà).

Lear's descriptions and sketches, combined with the information provided by the Austrian map of the Kingdom of Naples in 1847, enable us to study and understand the mid-19<sup>th</sup> century landscape of the region. In various instances, the traveller emphasizes the isolation of the different villages, the orography of the territory, the difficulties of travel, the relationship with riverbeds as critical elements for crops and villages, and the backwardness and poverty characterizing the encountered villages (figs. 2-5).



Figure 2. Edward Lear's travel sketches, Motta San Giovanni (GAETANO 2023).

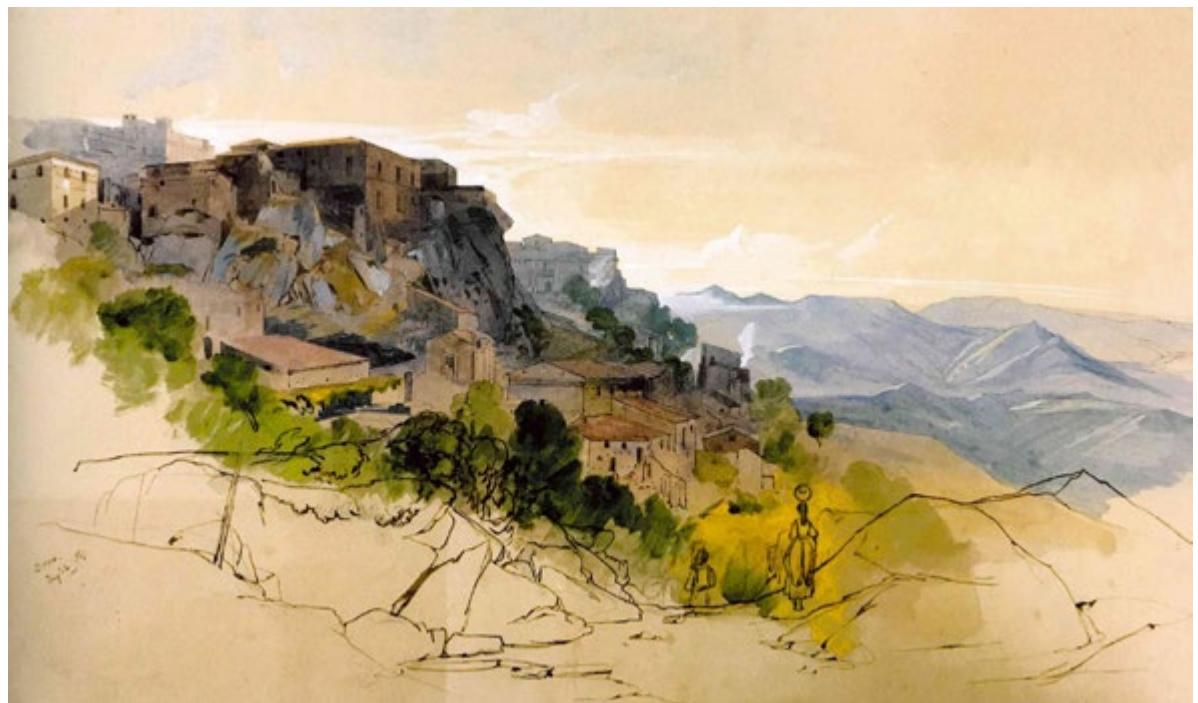


Figure 3. Edward Lear's travel sketches, Bova (GAETANO 2023).

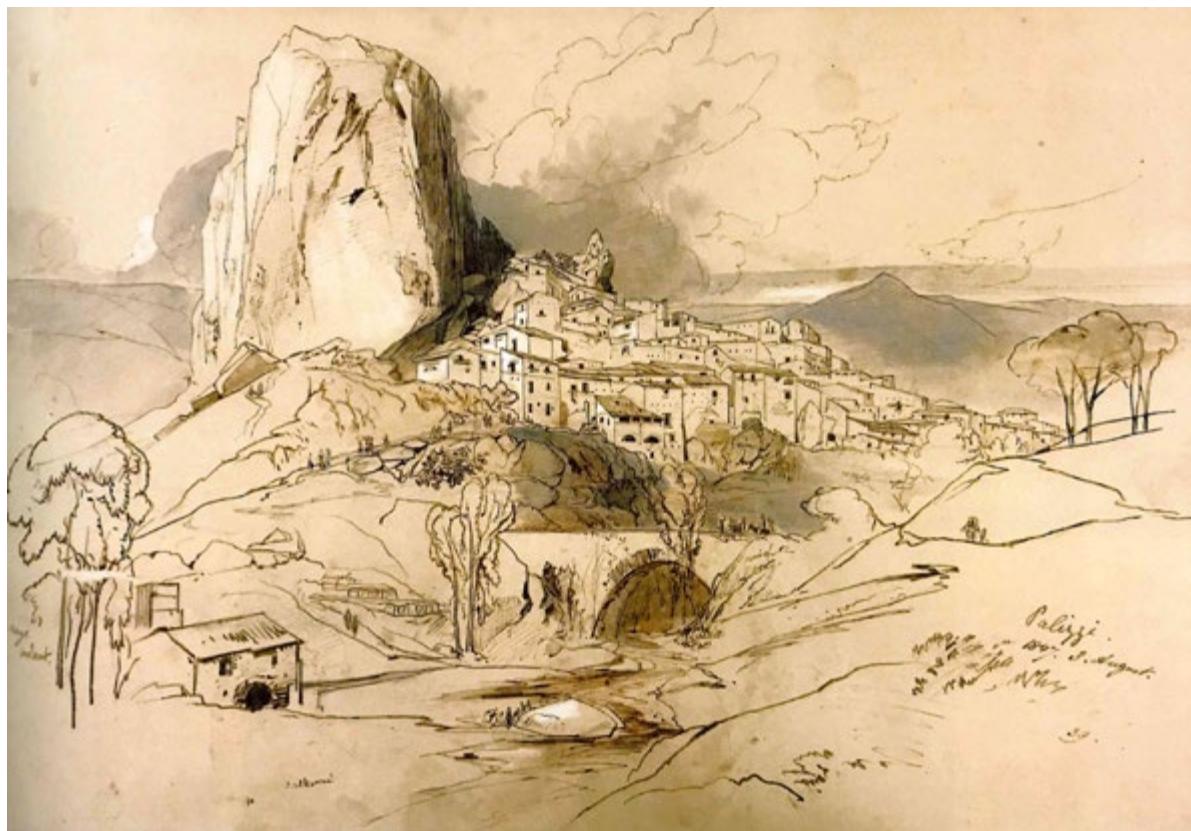


Figure 4. Edward Lear's travel sketches, Palizzi (GAETANO 2023).



Figure 5. Edward Lear's travel sketches, Bruzzano Zeffirio (GAETANO 2023).

## 2.3 Abandonment and Relocation of Settlements in the Twentieth Century and Roadways in the CTR of 1954

The cartographic history of Calabria has another milestone in the last representation of the peasant society's territory before its transformation over the last sixty years. The entire territory of 1950s Calabria is accurately depicted in the Carta Tecnica Regionale (CTR), produced at a 1:10,000 scale between 1954 and 1958.

The 1954 map (fig. 6) highlights several phenomena that the research reflects upon. Firstly, following calamitous events, the new settlements of Africo, Casalnuovo, Ferruzzano, and Bruzzano were placed lower and closer to the coast than the original nuclei. In contrast, in the case of Canolo, the new settlement is positioned higher and upstream compared to the old settlement. Secondly, the road network system – hierarchically organized into paths, mule tracks, roads, and provincial roads – appears to be mostly a reclassification and technical adjustment to more efficient road categories (from path to mule track, from mule track to road) and the introduction of interventions (such as the construction of the bridge over the Trinca pass) that resolved the old interruptions in the routes. Thirdly, the map reveals two road systems representing different ways of inhabiting the territory. The first is made up of mule tracks and paths, which in some cases over time become roads. The other relates to the main mobility network in the valley/coast. This system is structured around the Taranto-Reggio Calabria railway and the old road along the coast that becomes State Road 106, established in 1928, with local roads ascending the valleys at certain points. Thus, focusing to the urban centers privileged in the *Lost & Found* research, the settlements of Africo and Casalnuovo correspond to the first road system, comprising mule tracks and branching paths in the mountains, following the contour lines, where watercourses represent a hurdle to overcome. For example, the Aposcipo stream constitutes a divide in the direction of Samo and thus towards the sea and Bianco, Gerace, and Locri. In the 1930s, the construction of a small bridge improved connections, and the path after Aposcipo transformed from a pedestrian path to a mule track. Conversely, for the settlements of Motticella, Ferruzzano, and Bruzzano, the road to the sea is already documented in the Napoleonic map of 1847, but the connections between the coastal road and the roads ascending the valleys are strengthened or newly built from the 1930s onwards, following the construction of Bruzzano Zeffiro and Africo Nuovo.

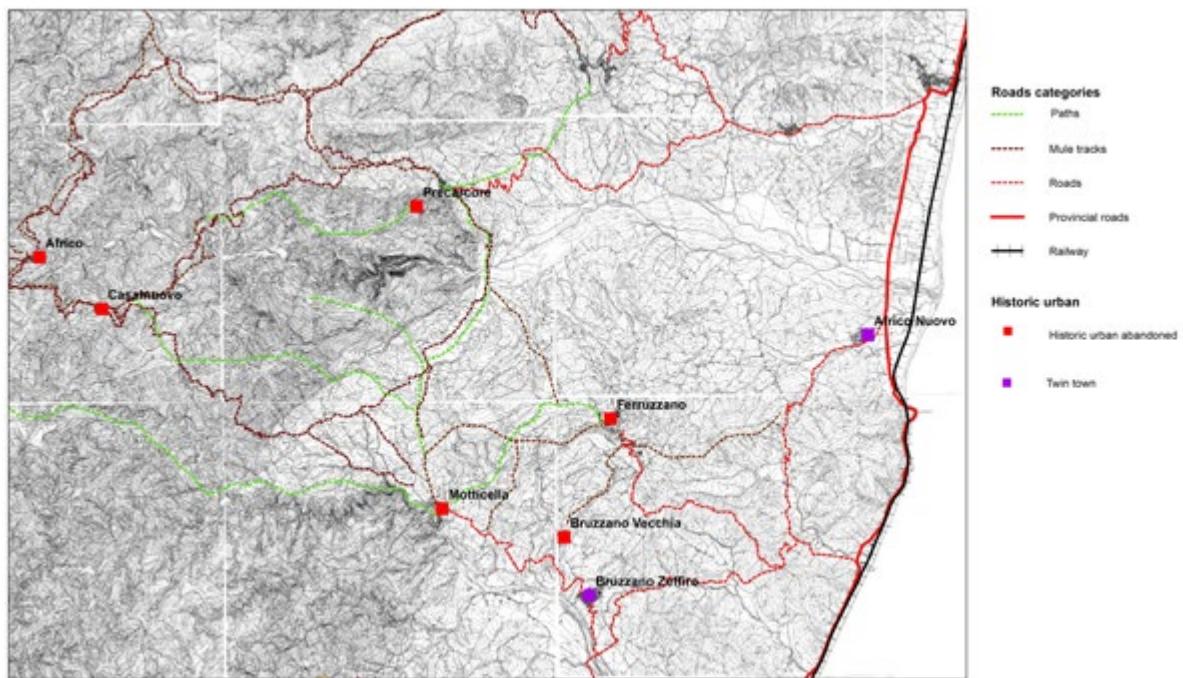


Figure 6. Roads and new locations in the 1954 map (elaboration by R.M. Rombolà).

### *3. Historical GIS to analyse phenomena of abandonment and relocation*

In the research, digitally scanned images of historical maps were georeferenced on a recent digital geographic base. Georeferencing was possible because the two used maps have good geometric characteristics, maintaining a high degree of fidelity to the geographic reality. This allowed the matching of corresponding points (Ground Control Point, GCP) between the two images as required by the procedure.

The ability of geodatabases to store and georeference data from different sources and to compare different levels of information makes Historical GIS, HGIS, an ideal tool for studying the diachronic transformations of territorialization processes, material components of the landscape, and various socio-economic processes. This is due to the possibility of overlaying (and comparing) different informative layers corresponding to different periods<sup>40</sup>.

Based on this observation, some themes from the Calabria Regional Information System were overlaid on historical maps to better study the relationship between past and present. The initially selected geodatabases were:

- Municipal Boundaries, obtained by extraction from the topographic database (DBT) and characterization of administrative units, Shapefile format;
- Hydrographic Basins, main and secondary, of watercourses draining into the sea with an area greater than or equal to 200 sq km. The dataset was extracted from the general one of the Italian territory (Source: Ministry of the Environment), Shapefile format;
- Water sources in the Calabrian territory. The dataset was extracted from the general one of the Italian territory (Source: Ministry of the Environment), Shapefile format;
- Surface Hydrography, Vector cartography of the hydrographic network. Representation of the course of a river/stream (permanent and/or seasonal) or a channel from start to finish and at intermediate confluences, Shapefile format;
- Geotopographic Database DBT 25,000, 2008. It was created by deriving from the Regional Technical Map 5K and the DBT 5K of the Calabria Region as provided in the document "1n1007\_6-Content Specifications - DB25 derivation from the catalog of objects \_ ver 3.3 dated April 25, 2006", Shapefile format;

40. GRAVA *et al.* 2020.

- Urban Centers 1954, Manual demarcation of urban centers on historical maps from the Military Geographic Institute (IGM), Shapefile format;
- Regional Technical Map 1:10,000 produced on behalf of the Cassa per il Mezzogiorno (Special Law for Calabria of 11/26/1955, no. 1177) with technical assistance from the Military Geographic Institute. Aerial photographs from 1954, photogrammetric survey carried out in 1959, Geotiff format;
- Ortho Images for the year 2007/2008, Digital orthophotos at a scale of 1:5,000, in the reference system.

Using this information, it is possible to locate the four modes of relocation between old and new settlements, as mentioned in the first paragraph of this paper, on a georeferenced map.

Figure 7, *Map of abandonment*, and new locations documents the four modes of movement: 1. from mountains to the sea; 2. newly founded centers kilometers away from the original locations and outside the administrative boundaries of the municipality to which the abandoned center belongs; 3. near the old settlement; 4. twin settlements towards the mountains.

On the other hand, figure 8 documents how the historical information from the Rizzi Atlas was represented on actual or slightly distant geographic coordinates. The map can be considered a useful scientific tool in describing the geography of late 18th-century Calabria. In it, the riverbeds of streams and rivers largely correspond to current traces; the Amendola stream is represented with the old toponym "fiumara Piscopio"; the Bruzzano stream with the old toponym "torrente Landro", the La Verde stream is indicated with the current toponym.

HGIS conceived in this way allows the study of the abandonment and transfers of minor centers in southern Calabria in relation to the history and physical geography of the places. In this paper, the main elements and some illustrative applications have been summarized. The goal of the research work was not so much an original and systematic reading of the territory under consideration, but rather an attempt to verify the effectiveness of cartographic, narrative, and iconographic research tools, re-read and interpreted, using new computer tools to deepen the understanding of diachronic transformations of urban, rural, and infrastructural landscapes.



Figure 7. Map of abandonment and new locations (elaboration by R.M. Rombolà).



Figure 8. Overlay of data from the Calabria Region Information System on the georeferenced sheets of the Geographical Atlas of the Kingdom of Naples, Rizzi Zannoni (1788-1812) (<https://anticabibliotecacorigliano-rossano.it/mappe-e-carte-geografiche/la-calabria-del-cartografo-e-geografo-giovanni-antonio-rizzi-zannoni-padova-1736-napoli-1814>, accessed 2 December 2024) (elaboration by R.M. Rombolà).

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## EFFECTS



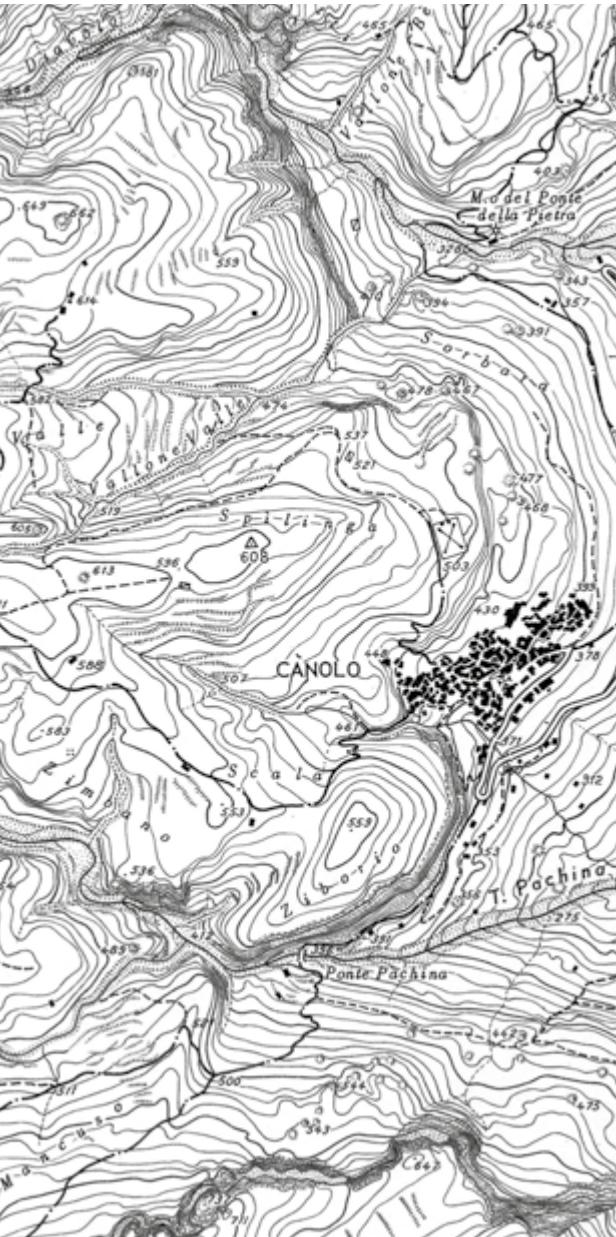
# LOST AND FOUND

Processes of abandonment of the architectural and urban heritage  
in inner areas. Causes, effects, and narratives (Italy, Albania, Romania)



Edited by Annunziata Maria Oteri

Archistor  
EXTRA



## Nuovi insediamenti per antiche comunità delocalizzate. Il trasferimento di Canolo 1951-1955

Marco Mareggi (Politecnico di Milano)

*Il testo restituisce le vicende che portarono alla creazione dell'insediamento di Canolo Nuovo, sull'Aspromonte ionico in Calabria. Dopo una nota metodologica e una rassegna della letteratura disponibile su questo centro calabro, il contributo ripercorre le tappe che dall'alluvione del 1951 portarono al raddoppio del paese sui piani della Milea, in località Schiavone fiorentino, 500 metri più a monte, nel territorio comunale e su terre pubbliche. Il racconto si articola tra un resoconto dell'alluvione, dei danni provocati e delle richieste di intervento da parte degli enti locali al governo nazionale. Segue una disamina delle ragioni della scelta localizzativa, una presentazione del complesso residenziale fondativo realizzato nell'ambito del programma Ina-Casa, la descrizione del piano regolatore per Canolo nuovo e della sua attuazione nell'immediato e una rassegna critica dell'urbanistica del nuovo centro urbano-rurale. In conclusione, si riflette sul processo di trasferimento, sui programmi e strumenti urbanistici messi in campo e sulla forma urbana del nuovo insediamento per sottolineare le energie investite per una rinascita altrove incompiuta.*

# LOST AND FOUND

Processi di abbandono del patrimonio architettonico e urbano nelle aree interne. Cause, effetti, narrazioni (Italia, Albania Romania)

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# New Settlements for Ancient Delocalized Communities. The Transfer of Canolo 1951-1955

Marco Mareggi

For a long time, both tragic and ordinary events have led to the peculiar phenomenon of settlement abandonment in marginal contexts, resulting in the relocation of most of the population to a different territorial area.

Over the past twenty years, the debate on abandonment in Italy and urban shrinkage in international literature has encompassed both urban, densely populated areas and rural, sparsely populated ones. This discussion originated in the planning sector during the 1970s in the USA<sup>1</sup>, spurred by the profound deindustrialization and suburbanization in the Midwest and along the Atlantic Coast. The theme gained relevance thanks to the international research project *Shrinking Cities*<sup>2</sup>, which emerged from the German debate on post-Fordist and post-socialist transformations. The causes of abandonment are multifaceted. Philipp Oswalt and Tim Rieniets<sup>3</sup> identify four major drivers of urban contraction:

- *destruction*, such as wars, conflicts, or natural disasters (earthquakes, eruptions, floods, droughts, or tsunamis); that can be also ecological and epidemic crises, which force populations to flee or result in significant demographic losses;

1. FOL 2012.

2. OSWALT 2005; 2006.

3. OSWALT, RIENIETS 2006.

- *loss*, which refers to the depletion of resources like jobs, water, or fossil fuels;
- *shifting*, encompassing migrations of businesses and populations due to industrial delocalization or suburbanization;
- *change*, describing radical transformations, whether political or demographic, including changes in life expectancy, natural growth, aging, or economic shifts.

This phenomenon is often analyzed through demographic trends which, despite their unpredictability, indicate – according to some scholars<sup>4</sup> – that depopulation and population redistribution are challenges Western countries must confront. These migrations are closely linked to social and economic changes that exert regressive physical and territorial effects on anthropized environments. In urban areas, contraction does not necessarily equate to a reduction in the global physical extent of urbanized spaces; rather, it manifests as “perforation” and underuse, producing what has been called the “perforated city”<sup>5</sup>. Conversely, in low-density contexts, outcomes range from resident depletion to the disuse of services and infrastructure, culminating in the abandonment of smaller settlements<sup>6</sup>. It is precisely this latter aspect that we aim to address.

In 2008, a national Italian research project examined the ongoing transitions in small villages, exploring conditions that ranged from prosperity to mediocrity and even to housing deprivation. The latter condition is often a precursor to the phenomenon of ghost towns<sup>7</sup>. In this article, however, the focus is on the total or partial abandonment of smaller settlements, where and when a new settlement emerges in a different location, resulting in a population transfer from the previous area.

To develop this theme, a favorable research context has been chosen: Southern Italy. Over the past few decades, a small body of Italian scientific literature has emerged, focusing on the architecture and morphology of abandoned centers<sup>8</sup>. These studies are often connected to anthropological and, to some extent, historical research<sup>9</sup>. In recent years, books and journals have expanded this field with studies showcasing experiments in restoration, conservation<sup>10</sup>, and the revitalization of smaller

4. HOSPERS, REVERDA 2015; GÖTMARK, CAFARO, O’SULLIVAN 2018.

5. PALLAGST, WIECHMANN, MARTINEZ-FERNANDEZ 2014.

6. IBA-BÜRO, BAUHAUS DESSAU FOUNDATION 2010; ANDREASSI 2016; OTERI, SCAMARDÌ 2020.

7. CONFCOMMERCIO, LEGAMBIENTE 2008.

8. For Basilicata, see PEDIO 1990; for Calabria, see COLISTRA 2001.

9. CLEMENTE 1997; TETI 2004, 2017; TARPINO 2012.

10. OTERI, SCAMARDÌ 2020.

abandoned centers<sup>11</sup>. Particular attention has been devoted to Calabria, a region described as lacking «proper cities»<sup>12</sup>, where small and very small centers dominate, and abandonment represents a persistent and enduring issue<sup>13</sup>. The anthropologist Vito Teti suggests that it is possible to trace a distinct history of abandonment in Calabria, as this phenomenon «has assumed and continues to assume a broader, more generalized, and complex character than elsewhere»<sup>14</sup>. At this stage, it is fundamental to highlight those cases where a place is abandoned in favor of resettlement elsewhere. Teti notes that, since ancient times, there has been a dynamic of «abandonments and reconstructions, constant foundations, transfers of anthropological places and centers, desacralization and forgetting of ancient sites, and the sacralization and creation of new ones. The ruins almost always tell, certify, and allude to a construction or a rebirth elsewhere»<sup>15</sup>. The focus of this study is on new foundations that do not follow the typical cycle of birth, death, and revival of settlements within the same territorial context<sup>16</sup>. Instead, these cases involve villages that “switch off” and regenerate in a different area, which appears to provide greater sustainability for the community’s settlement.

This phenomenon, defined in Calabria as the “double villages”<sup>17</sup>, involves a form of “geographical mobility” or “geographical migration”. In this process, the population of a settlement migrates to a new location after abandonment, carrying with them names, institutions, and memories. Sometimes both twin villages, founded at different times, remain active and functional; at other times, one is abandoned in favor of the other. Vito Teti identifies two primary patterns of abandonment and reconstruction: along the coastline (e.g., Africo, Casalnuovo, later Roghudi, and Badolato); In the interior (e.g., Natile, Careri, Canolo, Badolato, and Nardodipace)<sup>18</sup>.

The author<sup>19</sup> has synthesized the geography of these movements into four modalities:

- transfer, predominant in modern times, where inhabited centers move *from the mountains to*

11. E.g., BERIZZI, ROCCHELLI 2019; BERTINOTTI 2019, 2020; GASTALDI, CAMERIN 2023.

12. GAMBI 1965, p. 475

13. GIOVANNINI 2001

14. TETI 2017, p. 182.

15. *Ibidem*.

16. VAN DEN BERG *et al.* 1982.

17. MELELLI 2004.

18. TETI 2018.

19. MAREGGI, ROMBOLÀ 2024.

the sea, creating the phenomenon of *maritime towns*<sup>20</sup>. These often arise within the same river valley and municipal territory of the abandoned settlement;

- *new coastal foundations*, located several kilometers away from the original sites and outside their municipal boundaries;
- *relocation near the original settlement*, preserving the hilly or mountainous context;
- creation of *doubled villages in the mountains*, with new houses built on plateaus. This last typology is the specific focus of this article, particularly concerning the settlement of *Canolo Nuovo*.

As previously mentioned, although the transfer of inhabitants has historically characterized the Calabria region, it intensified with the enactment of central government legislative measures issued in response to catastrophic events such as earthquakes and floods. The first measure, Law N. 255/1906 *Provvedimento a favore della Calabria* (*Measures for Calabria*), initiated the compilation of a list of locations damaged by the 1905 earthquake. Following the 1908 earthquake, whose epicenter was in the Messina Strait, Law N. 445/1908 *Provvedimenti per la Calabria e la Basilicata* (*Measures for Calabria and Basilicata*) decreed the relocation of numerous settlements due to landslide risks or unstable hydrogeological conditions. For Calabria alone, the initial list included 62 small towns and 27 hamlets, 24 of which were in the province of Reggio Calabria. This list was subsequently supplemented and expanded<sup>21</sup>. After the floods in the summer and autumn of 1951 – when the devastating consequences in the Polesine region of Emilia-Romagna and Veneto diverted attention from Southern Italian regions – Law N. 9/1952 was enacted: *Provvedimenti per le aree danneggiate dalle alluvioni e mareggiate dell'estate e dell'autunno 1951 in Calabria, Sicilia, Sardegna, Liguria, Piemonte, Lombardia, Veneto, Emilia, Toscana, Puglia e Campania* (*Measures for the Areas Damaged by the Floods and High Tides of the Summer and Autumn of 1951 in Calabria, Sicily, Sardinia, Liguria, Piedmont, Lombardy, Veneto, Emilia, Tuscany, Apulia, and Campania*).

This national legislative measure authorized the Ministry of Public Works to address the restoration of damages caused by floods and high tides. On one hand, this involved public and hydraulic works; on the other, it included granting contributions for the repair or reconstruction of privately-owned houses and artisan-commercial businesses, limited to essential works ensuring habitability and usability. Contributions, which could cover up to 90% of costs, varied based on the socio-economic conditions of families. Moreover, the Ministry was tasked with the consolidation or

20. KISH 1953.

21. See SULFARO in this volume, pp. 44-89.

relocation of settlements, even if they were not included in the lists of previous laws. In particular, for settlements marked for relocation, the construction of essential infrastructure was authorized, including water supply, sewage systems, internal roads, electric lighting, as well as public buildings such as churches, rectories, cemeteries, schools, and public housing for needy and homeless families. Lastly, notwithstanding existing regulations, the master plan for relocated settlements was to be approved by the competent Office of Public Works.

Subsequently, following the floods of 1953, Law N. 938/1953, *Provvedimenti per le aree danneggiate dalle alluvioni in Calabria* (*Provisions for the Areas Damaged by the Floods in Calabria*), was approved. This law, specific to the region, updated the list of small towns and villages to be relocated or repaired, as outlined in Law N. 455/1908. Furthermore, it established contributions for the repair or reconstruction of private residences, which could also be undertaken by the state, with a repayment period of 10 years for contributions due from the beneficiaries. Among the eligible expenses was the purchase of new buildable land, which could be expropriated if deemed to be in the public interest. However, Law N. 1177/1955, *Provvedimenti straordinari per la Calabria* (*Extraordinary Provisions for Calabria*), encouraged the development of a 12-year plan for Calabria (1955-1967). This plan involved extraordinary works for hydraulic and forestry arrangements, river courses, and mountain slopes. The results, however, were sporadic and partial<sup>22</sup>.

If these interventions did not ensure the safety and economic stability of the inhabitants, the law provided, on the one hand, for the partial or total relocation of the towns, or, on the other, for the consolidation of the settlements. With this law, the state shifted from an emergency response approach – focused on existing settlements – to a «concrete program» that aimed «not only to repair the damage [...] but, primarily, to prevent new and further dangerous damage»<sup>23</sup>. Additionally, the law allocated financial resources to municipalities and confirmed the previous economic contributions for the construction of new residences and the acquisition of land, which could be expropriated in cases of recognized public interest<sup>24</sup>.

This set of post-disaster measures, providing both guidance and administrative support for urban rebuilding, relocation, and consolidation in good faith, once again underscores the prominence of Calabria in Italian legislative interventions related to regional territory, which are updated and specified for this region.

22. DE GIORGIO DONATO 1983.

23. CASSA PER IL MEZZOGIORNO 1961, p. 14.

24. For a more in-depth analysis of the legal framework, see SULFARO in this volume, pp. 44-89.

The chronological choice of the referenced legislation is driven by the historical events reinterpreted in this article, specifically focusing on the partial relocation of a small village in the Calabrian Apennines following the floods of the 1950s. The village of Canolo was selected as an illustrative example to explore and test a history-based research interpretative model<sup>25</sup> on the relocation of settlements following the abandonment of part of the town. This case was chosen because it exemplifies rapid settlement transformations – with the emergence of a new centre – following a meteorological event and subsequent flood in October 1951. Canolo's relocation offers several points of interest:

- a new settlement was relocated upstream to a plateau compared to its previous location, which was perched on a rocky spur. During this historical phase, the choice of location upstream was less common compared to relocating a new town downstream and often near the coastline;
- the relocation occurred within the same municipality's territory, less documented in scientific literature compared to relocations outside the municipality, such as Africo in 1951<sup>26</sup> and Roghudi in 1971-1972<sup>27</sup>;
- the new location allowed the continuation of customary socio-economic activities, particularly agricultural, forestry, and pastoral practices, maintaining a socio-economic regime similar to that of the old settlement;
- the abandonment only partially affected the old nucleus, with part of it being abandoned due to its disrepair, which was officially declared uninhabitable in 1952<sup>28</sup>.

The following text provides an account of the events that led to the creation of the Canolo Nuovo settlement. After a brief methodological note and a review of the available literature on this Calabrian village, the article retraces key steps in the events that resulted in the doubling of the town on the plains of Milea following the disastrous flood of October 1951, in the locality of Schiavone Fiorentino, 500 meters upstream. This new location remained within the municipal territory and largely on municipal or public lands. The narrative progresses by first reporting on the flood and the damages incurred, followed by an examination of the initial requests for intervention by local authorities directed at the national government. This is then followed by an analysis of the reasons behind the choice of a new settlement location, a presentation of the social housing complex created

25. See OTERI in this volume, pp. 8-39.

26. ZANOTTI BIANCO 1954, 1959; STAiano 1979.

27. CRUPI 1981; TETI 2004.

28. Ministerial Decree of 2 April 1952, «Gazzetta Ufficiale» N. 123/1952.

as part of the INA-Casa program, and a detailed description of the master plan for Canolo Nuovo and its immediate implementation. Furthermore, the article offers a critical review of the urban planning strategies used in the development of the new urban-rural center. In conclusion, reflections are provided on the relocation process, the urban planning programs and tools implemented, and the organizational and spatial planning of the new settlement, emphasizing the efforts made toward an incomplete rebirth elsewhere.

## 2. *The Transfer to Canolo Nuovo: A Scarce Literature and an Archival Document-Based Narrative*

The settlement of Canolo Nuovo has been briefly, effectively, and informatively recounted by Vito Teti in *Il senso dei luoghi: Memoria e storia dei paesi abbandonati* (*The sense of places: memory and history of abandoned villages*)<sup>29</sup>, in the chapter dedicated to the complex story of Africo and the geographical and economic extraterritoriality of its relocation. In the few lines that conclude the section *Dove andare? Diversi scenari per un paese nuovo* (*Where to go? Different Scenarios for a New Town*), Canolo is presented as one of the few settlements for which the relocation was carried out «taking into account the ancient productive and economic forms of the population, as well as public and municipal properties»<sup>30</sup>.

Otherwise, Antonio Marando – writing in *Nord e Sud*, the monthly journal directed by Francesco Compagna – narrates the story in a detailed manner within the context of the political representation system and electoral behaviours<sup>31</sup>. In Canolo, the social-communist coalition dominated: many voters supported the Italian Communist Party (PCI), while the representation of the national government, entrusted to the Christian Democracy (DC), was subordinate, both before and after the flood and the relocation of the settlement. In the 1950s, the town was experiencing constant demographic growth and emigration (an average of 50 people per year). For this reason, the author focuses on the need for the education of the many children (over 200 out of a population of 2,213 inhabitants between the old and new towns, with 1,329 registered on the electoral rolls in 1958) and the inadequacy of the school facilities. In Canolo, schools were rented, unsanitary, or held in homes, while Canolo Nuovo had proper classrooms for elementary classes and a kindergarten. The author's words convey a positive judgment regarding the new settlement, but he does not fail to

29. TETI 2004.

30. *Ivi*, p. 233.

31. MARANDO 1958.

highlight the differing opinions among politicians and residents regarding the location of the new town: «Many would have preferred the town to be rebuilt closer to the municipality's territory, so as not to cut off the *Canolesi* who were relocated from their natural work areas. Others – and it seems they are the majority – insist on the complete reconstruction of Canolo on the Milea plains, where the first cluster of buildings emerged. Another road, connecting Old Canolo and New Canolo, would solve the problem and break the isolation to the north as well, linking the two centers with State Road 111, Gioia Tauro-Locri»<sup>32</sup>.

Domenico Romeo also provides some information on the birth of Canolo Nuovo in his recent text<sup>33</sup>. Thanks to some archival resources<sup>34</sup>, he recalls that «the families that decided to move to Canolo Nuovo were initially 12; in 1954, there were a total of 40 families with around 170 people»<sup>35</sup>. He also highlights the hardships caused by the relocation to higher ground. Some families rejected it due to the difficulties of the climate and houses «not suitable for retaining heat in the winter months»<sup>36</sup>. Again in 1954, discontent led the mayor to request subsidies for the flood victims who were relocated to new housing.

These fragments of the story touch upon various aspects: the reasons behind the choice of the site for the twin village, the debated positions regarding staying or moving, and the continuity of the left-wing political line. However, they only partially address the physical and urban transformations of the settlement, except for the road network. These aspects will be of interest in subsequent research.

The initiative was part of the Lost and Found research funded by the Department of Architecture and Urban Studies (DASTU) of the Politecnico di Milano within the RIBA program 2021, which aims to investigate the processes of abandonment of architectural and urban heritage in inner areas, examining their causes, effects, and narratives in three European countries (Italy, Albania, Romania). The information presented here is based on archival research conducted in January and February 2023 at the Municipal Archive of Canolo (ACC)<sup>37</sup> and the State Archive of Reggio Calabria (ASRC), specifically

32. *Ivi*, p. 118.

33. ROMEO 2007.

34. The information is taken from the State Archive of Reggio Calabria (ASRC), *Prefettura Alluvione 1951-1953*, busta 52, fascicolo 18.

35. ROMEO 2007, p. 116.

36. *Ibidem*.

37. At the Municipal Archive of Canolo (ACC), I consulted the dossiers related to the years 1950-1954 and the town-

the Civil Engineering Corps Archive of Reggio Calabria, series 1.2.26, *Opere di consolidamento e trasferimento dei centri abitati (Consolidation and Relocation Works)*, documentation that has not been reordered or catalogued. Additionally, parliamentary records from 1947 to 1958 and a selection of press reviews from 1951 to 1978<sup>38</sup> were consulted. All these allowed access to original and unpublished material. Archival research was complemented by a study of the literature on the local context, abandoned towns in Southern Italy, and post-World War II urban planning in Italy, conducted between July and September 2022. Despite the documentation obtained, the availability of material regarding how the local community, the municipal council, and the local press reported and discussed the projects for the new settlement was limited. Furthermore, the documentation related to the projects remains unsystematically organized. In contrast, site visits conducted in June 2022 and February 2023 provided further insights into the situation of the established settlement, its conformity to and deviations from the planned projects and programs, and its status as a twinned and partially abandoned inhabited centre.

### *3. The Cartographic Evidence a Few Years After the “Devastating Flood”*

1954. The Quadrant IV North-East section A of Sheet 255 of the Italian Map at a scale of 1:10,000, titled Cànolo<sup>39</sup>, depicts a dual settlement (fig. 1). To the east, Cànolo is visible as an urban cluster with a dense building pattern, located on a slope ranging from 370 to 450 meters above sea level. The settlement is organized according to the terrain's topography and bordered by a winding road that leads to the small town. The compact built space clearly defines the urban form. The old settlement lies below a rugged ridge, frequently incised by numerous streams that flow into the Novito stream's water basin on the Ionian slope, where agriculture represents the only economic activity, «from which the population derives their very meager livelihood»<sup>40</sup>. To the west, in the locality of Schiavone, at approximately 900 meters above sea level – where contour lines become

planning documents of the transfer to Canolo Nuovo, which was donated to the Municipality by the family of the technical office surveyor Pasquale Gangemi, who drew up an allotment plan (presumed date 1955-56). I also consulted the town planning instruments stored at the Municipality's technical office of Canolo.

38. The collection of parliamentary acts (1<sup>st</sup> legislature 1948-53; 2<sup>nd</sup> legislature 1953-1958) and the press review was conducted by Antonio Buttiglione.

39. The map was produced in 1958, thanks to the Cassa per il Mezzogiorno under the Special Law for Calabria, Law N. 1177/1955 and with the technical assistance of the Istituto Geografico Militare, based on aerophotos taken in 1954.

40. CASSA PER IL MEZZOGIORNO 1961, p. 372.

sparse – the Milea plains are depicted, showing Cànolo Nuovo. The new settlement is represented by a road grid within which two groups of buildings are organized: the first group follows an orthogonal pattern aligned with the aqueduct line and features the same building form replicated eight times, while the second building complex exhibits a road layout that extends linearly beyond the town, containing buildings of various shapes. Open spaces and roadways characterize the new settlement.

Official cartography documents the new urban configuration: the old town and its duplicate at a higher altitude. This was achieved despite only three years having passed since the «disastrous flood»<sup>41</sup> of October 15-18, 1951, which affected not only Canolo but also Southern Italy and its islands with a severe and exceptional volume of water. The flood caused casualties and posed significant dangers to houses (many collapsed or damaged), aqueducts, roads, and bridges that collapsed. The severe weather, «from October 15 to 20, 1951, raged throughout the Province of Reggio Calabria, causing varying degrees of damage to 75 municipalities»<sup>42</sup>.

Immediately, on October 18, 1951, Canolo's Mayor, Giovanni Lupis, wrote to the prefect, the Provincial Administration, and the Civil Engineering Office in Reggio Calabria regarding the «damages that have assumed hyperbolic forms, and more are expected»<sup>43</sup>. In addition to one casualty, the damages included the interruption of telegraph, telephone, and postal lines, the collapse and interruption of the Canolo-Siderno Marina provincial road at various points, the Pachina bridge over the Novito stream on the verge of collapse, and a rock overhanging the inhabited area that threatened to fall onto houses in the upper part of the town. Some of these houses were damaged, and many were left without roofs. The countryside also suffered significant damage. The situation prompted an evacuation order the following day, October 19, 1951, to ensure “public safety” for homes deemed dangerous, while at the same time vacant homes were requisitioned to accommodate the homeless<sup>44</sup>. On October 20, 1951, a detailed list was compiled, reporting: 12 collapsed houses in the countryside (64 people), 7 collapsed houses in the town (25 people), 37 families evacuated from

41. ACC, *Richiesta di urgenti opere di sostegno da parte di cittadini delle contrade*, sent to the Mayor of Canolo, November 6, 1951, manuscript.

42. ZANOTTI BIANCO 1954, p. 455.

43. ACC, Comune di Canolo, *Segnalazione per pronto intervento*, letter sent to the Provincial Administration and to the Civil Engineering Office, October 18, 1951.

44. ACC, Comune di Canolo, *Alloggi per sinistrati sfollati*, letter sent to the Mayor of Siderno Marina, November 6, 1951, prot. N. 1963, manuscript.

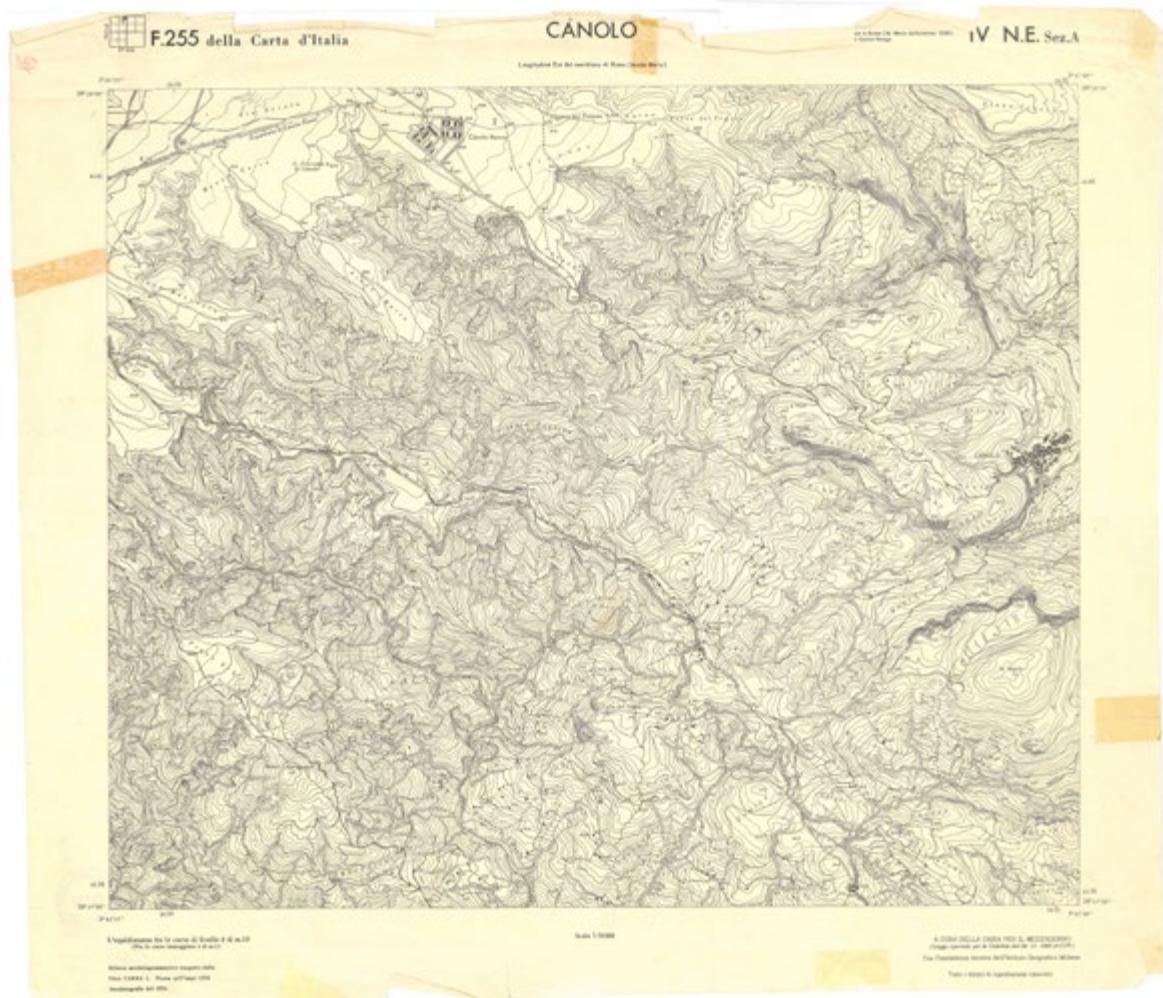


Figure 1. The twin village of Canolo. In Canolo Nuovo the development of the first batch (48 units) and the second batch (32 units) of public housing, the kindergarten, and part of the private terraced houses are represented (Carra L. Company, 1958, drawing, 1:10000. Aerial photographs, 1954).

dangerous houses below the rocky mass (74 people), 12 houses at risk of landslides (35 people), and 33 damaged houses (125 people)<sup>45</sup>. On the same day, a meeting was convened with representatives of the Italian Socialist Party, Christian Democracy, Italian Communist Party, INCA, the labour union, the Combatants' Section, the Italian Red Cross, agricultural representatives, the elementary school trustee, the merchants' representative, the health officer, the municipal collaborator, the parish priest, the Carabinieri station commander, two teachers, the municipal tax collector, and representatives of free unions, forming a Citizens' Committee for Relief (*Comitato cittadino per i soccorsi*)<sup>46</sup>. As president of the committee, the mayor sent a telegram to the prefect of Reggio Calabria, the Ministry of the Interior in Rome, the Public Works Superintendent of Catanzaro, and the Ministry of Public Works, reporting that the «situation has worsened, with 1,500 homeless people due to the evacuation of their homes, which have collapsed and are uninhabitable. It is impossible to provide houses for the population, which is agitated; immediate measures are urgently needed. We disclaim responsibility for any riots and further disasters»<sup>47</sup>.

On the prefect's instructions, a commission composed of the mayor, parish priest, Carabinieri commander, and ECA president was tasked with providing immediate assistance to the affected families, compiling a list of destroyed or evacuated houses, and arranging for housing and food distribution<sup>48</sup>.

On October 29, 1951, the Civil Engineering Office examined the situation regarding the landslide and «the demolition and removal of dangerous rocks, the stability of the retaining wall under construction [...], and the stationary conditions of the Crisimo ridge», confirming that «the only area of the town to be evacuated as a protective measure is delimited by the line [...] starting from the foot of the Crisimo cliff, following the northern front of the D'Agostino house and the uphill side of Castello, Anacor Staltari, Crisimo streets, and Primo Crisimo Street, until it reaches the Longo house. Furthermore, the first row of houses along Cimitero Street and below the Palombaro cliff must be evacuated due to a potential landslide. All houses with precarious stability must be evacuated»<sup>49</sup>.

45. ACC, *Elenco delle case crollate, danneggiate, pericolanti e lesionate*, October 20, 1951.

46. ACC, Comune di Canolo, *Invito alla riunione per discutere argomenti inerenti gli ingentissimi danni verificatisi a seguito delle alluvioni degli scorsi giorni*, October 20, 1951, prot. N. 1855.

47. ACC, Comune di Canolo, *Aggravamento della situazione relativa agli sgomberi delle abitazioni*, letter sent to the prefect of Reggio Calabria, Minister of the Interior, Public Works Superintendent of Catanzaro, Minister of Public Works, October 21, 1951.

48. ACC, *Circolare del Prefetto di Reggio Calabria ai sindaci*, telegram, N. 7, October 23, 1951.

49. ACC, Ufficio del Genio Civile di Reggio Calabria, *Zone dell'abitato da sgomberare*, engineer Ungaro Comincio, letter

It was again the mayor who acted as the spokesperson for the Citizens' Committee for Flood Relief, formally petitioning the Ministries of the Interior and Public Works. Additionally, he urged parliamentarians and government officials to address the «urgent need to construct housing for the homeless»<sup>50</sup> in Canolo. During those years, significant attention was given to the situation in Canolo by Calabrian deputies or those connected to the Calabrian context. This attention predominantly came from socialist and communist politicians, possibly due to Canolo being one of the strongholds of the left in that area.

On November 1, 1951, the mayors of Canolo, Grotteria, Mortone, Marina di Gioiosa, and Siderno jointly requested both immediate and long-term interventions. Immediate measures included «the urgent construction of any type of shelter in safe areas as close as possible to the old buildings to accommodate the homeless, which can be summarized as follows: Canolo 300 families, Siderno 137 families, Marina di Gioiosa 60 families, Mortone 10 families, Grotteria 150 families». In addition, they called for long-term measures for «definitive and radical solutions» related to: a) reforestation of mountainous areas; b) the «consolidation of inhabited centers to save what is still salvageable and relocate some of them to areas more suitable for the economic interests of the populations living there»; c) «upstream containment and downstream embankment works to discipline the waters of rivers and numerous streams»; d) the construction of aqueducts, sewer systems capable of managing rainwater, and improving and making road networks more efficient; e) «intensifying the construction of homes for workers according to the plan entrusted to INA-Casa, and substantially supporting private initiatives, especially in small villages»<sup>51</sup>.

From the documents, on one hand, it becomes evident that the local government was capable of swiftly mobilizing to request support and communicate the critical situation. This action involved broad participation from all community stakeholders, who were considered to have specific interests and a clear role within the community. On the other hand, requests for long-term measures were equally prompt and demonstrated the ability to promote political initiatives beyond local interests.

sent to the Mayor of Canolo, October 29, 1951.

50. The Mayor of Canolo has urged: the honourable Filippo Murdaca, Undersecretary of State, November 20, 1951; the honourable Francesco Geraci, Giacomo Mancini, Vittorio Pugliese, November 22, 1951; the Undersecretary of State for Mails and Telecommunications Vito G. Galati, November 22, 1951 (ACC, Letters and their replies); and the honourable Spoleto who ensures the fast construction of inhabited buildings, November 27, 1951 (ACC, Telegram). In the same period also communist senator Eugenio Musolino took interest in the transfer of Canolo.

51. ACC, Comune di Siderno, *Provvedimenti urgenti e di lungo periodo*, minutes signed by Mayors of Canolo, Grotteria, Mortone, Marina di Gioiosa and Siderno, November 1, 1951, prot. N. 8067.

It is worth noting, however, that the immediate interventions requested were standard and recurring needs in post-disaster situations (ranging from food and blankets to shelter for all). Meanwhile, the long-term interventions – including the consolidation or relocation of settlements and hydrogeological prevention measures – were based on principles of economic management and anthropogenic control of the water system, with less focus on preserving the architectural heritage and addressing hydrogeological risks resulting from improper human interference. Beyond political acumen and social cohesion driven by the emergency, some issues related to changes in the territory and their urban planning implications are evident.

#### *4. The Reasons for the Choice of Location*

The decision-making process following the event was active not only at the inter-municipal level but also at the local and national levels.

While finding accommodations for the homeless was challenging in the immediate aftermath for all nearby municipalities<sup>52</sup>, the decision-making process regarding the relocation of the settlement was more effective. On November 6, 1951, the Citizens' Committee (composed of 20 participants) convened «to discuss and approve the following agenda: the possible relocation of the Canolo Center settlement to a more stable location»<sup>53</sup>. According to the meeting minutes, there was a need to «establish and choose the location for the construction of new homes for the disaster victims and the homeless [...] and it is considered that the *entire urban centre should be relocated to the selected location* due to its susceptibility to landslides»<sup>54</sup>.

The arguments in favour of choosing the Milea plains in Schiavone Fiorentino included:

- the danger posed to the old settlement by the overhanging rock and the instability of the terrain, where a consolidation intervention «would not provide any guarantee for a safe and definitive settlement of the town»<sup>55</sup>;

52. ACC, Comune di Canolo, *Brevi cenni di relazione sulle condizioni dal lato economico finanziario del Comune in relazione alla nuova situazione delineatasi in seguito al nubifragio abbattutosi recentemente*, November 15, 1951, prot. N. 2023.

53. ACC, Invite of Mayor Lupis to the Citizens' Committee for the eventual transfer of Canolo in a stronger location, November 6, 1951, manuscript.

54. ACC, Minutes of Citizens' Committee's meeting to choose the locality to put the houses for the victims, November 6, 1951. The italics in the text are ours.

55. *Ibidem*.

- the enormous costs of the consolidation project;
- the necessity to tap the aquifer under the settlement, which would result in the disappearance of the kitchen gardens below, «to the serious detriment of the population, which would not find it convenient to stay in the area»<sup>56</sup>;

- employment reasons, as «the main activity of the farmers is carried out in the vast Milea plains»<sup>57</sup>.

The Citizens' Committee, consisting of representatives from all trade union and political factions, unanimously approved the choice. However, some individuals did not intend to relocate. The committee committed to maintaining the decision even if higher authorities did not accept the town's relocation.

Evidence of transformations in Canolo is also present in parliamentary records. In the Chamber of Deputies, on November 12, 1951, Calabrian Deputy Francesco Geraci noted that the new settlement would be facilitated by the extension of the «road connection of provincial road N. 17 Canolo-Siderno, already planned with funding from the *Cassa per il Mezzogiorno*»<sup>58</sup>. To reinforce the arguments for the relocation to the Milea plains, on January 22, 1953, arguments were presented in the Italian Senate. Calabrian Senator Eugenio Musolino declared that the areas involved were not only communal property but also «suitable for cultivation, sufficient to provide an economic base for the population, and with prospects for tourist development due to the beauty of the places, the healthiness of the climate, and the freshness of drinking water»<sup>59</sup>. The government's response, however, was more cautious. Undersecretary of State Ludovico Camangi noted that, pending technical assessments by the Italian Geological Institute, «the suggested relocation of the settlement to the Milea plains does not seem advisable»<sup>60</sup> because:

- the altitude of 900 meters above sea level, due to snow, wind, and harsh winters, allows agricultural activity only for a few months a year;
- the need to verify the presence of irrigation water in summer, which was presumed to be scarce;
- the location's inaccessibility, as it «is about three hours away from Canolo via mule track, and in that area, the construction of shelters can only be carried out during the summer months»<sup>61</sup>.

56. *Ibidem*.

57. *Ibidem*.

58. Camera dei Deputati, *Atti Parlamentari, Discussioni*, session of November 12, 1951, p. 32965.

59. Senato della Repubblica, *Atti Parlamentari, Discussioni*, 1948-52, session DCCXLVIII, January 22, 1952, p. 29960.

60. *Ibidem*.

61. *Ibidem*.

Additionally, due to the severity of floods and inundations in Northern Italy in November 1951, which added to the previous disasters in the South, two national laws were approved on January 10, 1952, in favour of damaged agricultural enterprises (Law N. 3/1952) and disaster-stricken areas (Law N. 9/1952), due to floods and high tides<sup>62</sup>. Among other provisions, these laws provided financial contributions to private individuals for the damages.

At the same time, on January 12, 1952, the Municipal Council of Canolo<sup>63</sup> deliberated on the area designated for construction interventions to build public housing under the INA-Casa program in the locality of Schiavone Fiorentino. The land, owned by the Municipality, was transferred to INA-Casa management<sup>64</sup>. This intervention fell within the framework of the Four-Year Plan for INA-Casa Constructions (P.Q.C.) and represented a formal response to the previous request to participate in the INA-Casa construction plan (Law N. 43/1949). In fact, as early as March 1951, before the flood, the Committee for the implementation of the *Plan for Increasing Workers' Employment-Houses (Piano di incremento dell'occupazione operaia-Case per lavoratori)* had proposed to the Municipality of Canolo to identify an area of approximately 650 sqm. The proposal emphasized that the selection of the area and its gratuitous transfer would be a preferential factor for inclusion in the investment program (8 million lire) and for the allocation of funds<sup>65</sup>. The deliberation also mentioned the ongoing

62. Law N. 3/1952, *Provvidenze a favore delle aziende agricole danneggiate dalle alluvioni e mareggiate dell'estate e autunno 1951 (Measures for Agricultural Enterprises Damaged by Floods and High Tides During Summer and Autumn 1951)* and law N. 9/1952, *Provvidenze in favore delle zone disastrate dalle alluvioni e mareggiate dell'estate e dell'autunno 1951 in Calabria, Sicilia, Sardegna, Liguria, Piemonte, Lombardia, Veneto, Emilia, Toscana, nelle Puglie e in Campania (Measures for the Areas Damaged by the Floods and High Tides of the Summer and Autumn of 1951 in Calabria, Sicily, Sardinia, Liguria, Piedmont, Lombardy, Veneto, Emilia, Tuscany, Apulia and Campania)*.

63. Comune di Canolo, *Designazione di area edificatoria per la costruzione di alloggi popolari INA-Casa in contrada Schiavone Fiorentino del Comune di Canolo*, Resolution of the Municipal Council of Canolo N. 4, January 12, 1952. It's interesting to underline that the designation of the P.Q.C. area for the Ina-Casa construction was approved by the G.P.A. after more than a year and a half, on June 26, 1953, subjecting the formal concession to the approval of the master plan by the technical bodies; ACC, Prefetto di Reggio Calabria, 8 luglio 1953.

64. INCIS, *Istituto nazionale per le case degli impiegati dello stato, Piano quadriennale Costruzioni INA-Casa, area Comune di Canolo*, 7 agosto 1953, ACC, *Designazione di area edificatoria per la costruzione di alloggi popolari INA-Casa in contrada Schiavone fiorentino del Comune di Canolo*, busta Eredi Ufficio tecnico geometra Pasquale Gangemi.

65. Piano incremento occupazione operaia, Case per lavoratori, Comitato di attuazione, *Programma di costruzioni INA-Casa, Legge 28 febbraio 1949, n. 43*, rif. 13567, document sent to the Mayor of Canolo, August 4, 1951, ACC, busta Eredi Ufficio tecnico geometra Pasquale Gangemi. It was only over a year later, on September 24, 1953, that the president of the Committee for the Implementation of the Plan for increasing Workers'- Housing communicated to the Municipality and the Prefecture the allocation (8 million from the 1952-56 program) for the implementation of the project. The document stated that the area had been chosen, and the project had been prepared using a typology that had already been experimented

process at the Ministry of Public Works regarding a «possible relocation of the town center to the same hamlet of Schiavone Fiorentino, where the municipally-owned building area is designated for the construction of public housing necessary for employees and workers of the mine»<sup>66</sup>. The attached site plan is particularly interesting (fig. 2). The document proposed an area of 1,000 square meters in a rectangular shape (40 m x 25 m), surrounded by newly planned streets “to be opened” 8 meters wide. The area was flat, without elevation differences, and included an indication of the prevailing winds coming from the west. The map did not include the buildings to be designed «due to the precarious and anomalous state of this municipality»<sup>67</sup> or those in the surrounding areas, as no nearby structures existed. Furthermore, the Municipality committed «to equipping the proposed area with the necessary public infrastructure, specifically the essential services required for the new town where it was to be built»<sup>68</sup>.

The Civil Engineering Corps of Reggio Calabria also addressed the reasons for choosing the Milea plains «for the construction of stable shelters to be allocated to the displaced people of the Crisimo district»<sup>69</sup> in the report dated March 24, 1952. The report, prepared by geologist-engineer Alberto Ducci, appointed by the Ministry of Public Works, supported this choice. He «verified the necessity of partially relocating the town of Canolo toward the mountain»<sup>70</sup>. The decision was motivated by the fact that the area is «flat over a wide surface and possesses good stability characteristics for foundations. It is sheltered from winds thanks to the presence of small nearby hill mounds, and it is

with (Piano incremento occupazione operaia, Case per lavoratori, Comitato di attuazione, *Stanziamento nel Piano del 5° anno, Delibera del Comitato n. 178 del 24 settembre 1953*, rif. 13567, document sent to INA-Casa office, prefect of Reggio Calabria and Mayor of Canolo, September 24, 1953, ACC, *Designazione di area edificatoria per la costruzione di alloggi popolari INA-Casa in contrada Schiavone fiorentino del Comune di Canolo*, busta Eredi Ufficio tecnico geometra Pasquale Gangemi).

66. ACC, Comune di Canolo, *Designazione di area edificatoria per la costruzione di alloggi popolari INA-Casa in contrada Schiavone Fiorentino del Comune di Canolo*, Resolution of the Municipal Council N. 4, January 12, 1952.

67. *Ibidem*.

68. *Ibidem*.

69. Ufficio del Genio Civile di Reggio Calabria, *Opere di riparazione danni alluvionali (Legge 10/1/1952 n. 9). Lavori per la costruzione di 48 ricoveri stabili per le famiglie del Comune di Canolo non abbienti e non proprietarie rimaste senza tetto*, report signed by chief engineer A. Brath, March 24, 1952, Archivio di Stato di Reggio Calabria, ASRC, Fondo del Genio Civile di Reggio Calabria, serie 1.3.8, *Lavori di costruzione di case popolari in 1952-1953 (3096) Canolo – Contabilità finale*, busta 309, fascicolo 1.

70. Response from Undersecretary of State Ludovico Camangi to the parliamentary question by Giacomo Mancini to the Minister of Public Works (6711), presented during the session on November 22, 1951, Camera dei Deputati, *Atti Parlamentari, Discussioni*, afternoon session on October 10, 1952, p. 41.355.

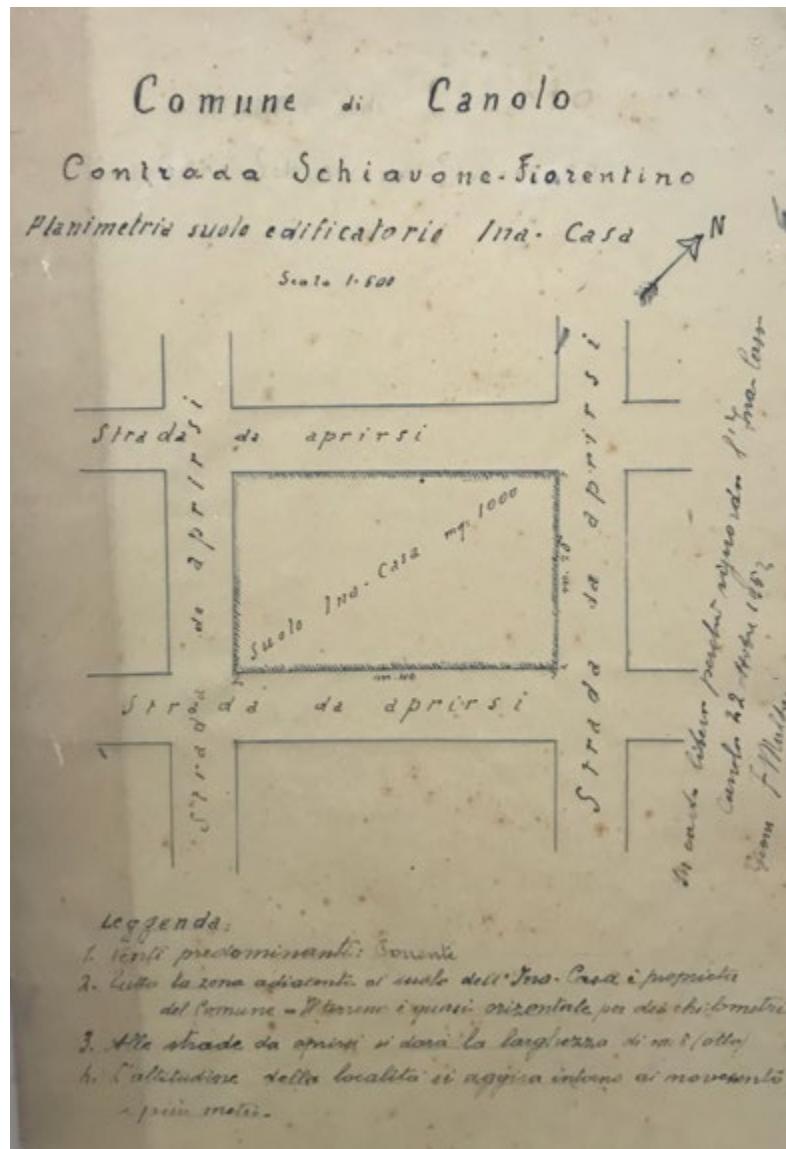


Figure 2. Canolo Municipality, Site Plan of INA-Casa in the Schiavone Fiorentino Area. Map drawn up by the surveyor Filippo Multari (ACC, *Designazione di area edificatoria per la costruzione di alloggi popolari INA-Casa in contrada Schiavone Fiorentino del Comune di Canolo*, fascicolo Eredi technical office surveyor Pasquale Gangemi).

possible to provide drinking water from three small perennial springs located about one kilometer away, which yield an abundant flow – even during low-flow periods – of approximately one liter per second»<sup>71</sup>.

From the available documentation, there is clear evidence of a well-defined interest on the part of the local community's representatives regarding the choice of location for the new settlement following the catastrophe. The decision on transfer and new location was not imposed externally; instead, it was determined by an authoritative group of active citizens within the town, supported by the technical expertise of the Civil Engineering Corps and legitimate concerns about the inaccessibility of certain buildings in the old town. The reasons behind the choice reflect a deep familiarity with the proposed location – due to its use for agricultural work and its municipal ownership – as well as significant hopes regarding the availability of effective transportation infrastructure, agricultural viability, and tourism potential. However, the documentation also reveals doubts and contradictions, such as concerns about the harsh winter climate, limited cultivation opportunities, the personal reluctance of some decision-makers to relocate, and challenges related to road connectivity.

A significant impetus for the decision was provided by the plan to locate INA-Casa social housing in the locality of Schiavone Fiorentino, which anticipated, influenced, and guided the choice to move the community further upstream.

It was the ministerial decree of April 2, 1952<sup>72</sup>, that determined which inhabited areas were to be relocated at the State's expense, in accordance with Law N. 9/1952. For Canolo, a partial relocation was stipulated, limited to the area bounded by Tucci, Castello, and Camposanto streets, as well as the overlying mountainous zone. Moreover, the decree had already been anticipated by Law N. 9/1952, which authorized the Ministry of Public Works to consolidate and relocate inhabited areas not included in the provisions of Laws N. 255/1906 and N. 445/1908. The law also authorized the construction of aqueducts, sewage systems, schools, cemeteries, essential services, and internal roads in the new settlements. However, by April 1952, the design of the first lot of INA-Casa housing in the Milea plains had already been completed, and the implementation phase was underway.

71. Ufficio del Genio Civile di Reggio Calabria, *Opere di riparazione danni alluvionali (Legge 10/1/1952 n. 9). Lavori per la costruzione di 48 ricoveri stabili per le famiglie del Comune di Canolo non abbienti e non proprietarie rimaste senza tetto*, report signed by the chief engineer A. Brath, March 24, 1952, ASRC, Fondo del Genio Civile di Reggio Calabria, serie 1.3.8, *Lavori di costruzione di case popolari in 1952-1953 (3096) Canolo – Contabilità finale*, busta 309, fascicolo 1.

72. The ministerial decree of April 2, 1952 was registered with the Court of Auditors (*Corte dei Conti*) on May 8, 1952, under registration number 12 LL.PP. fol. 143, and published in the «Official Gazette», N. 123, on May 28, 1952

## 5. The Public Housing of the INA-Casa Plan: The Founding Nucleus of Canolo Nuovo

The founding act of Canolo Nuovo was the construction of two-story buildings comprising 48 «stable shelters» – 8 buildings with 6 apartments each – (fig. 3), intended for «families of the Municipality of Canolo who were not well-off, did not own property, and had been left homeless»<sup>73</sup>. In the project drafted by the Civil Engineering Corps, dated March 24, 1952, the dwellings were planned with concrete foundation blocks, walls made of split stonework and cement mortar, reinforced with conglomerate bands and intermissions at the level of the stringcourse and eaves to create suitable reinforced concrete frames. The floors were designed with prefabricated reinforced brick beams topped with a concrete conglomerate layer, while the roof was to be covered with wooden tiles.

The construction works were awarded<sup>74</sup> and assigned to the company on July 12, 1952<sup>75</sup>, at which point the foundations of four buildings had already been completed<sup>76</sup>. The project (fig. 4) proposed two types of buildings (fig. 4). The first type, Type A, features a complex front composition and a simple rear facade. The floor plan is compact and symmetrical. Each of the six apartments has independent access directly from the street level and the main front. Each dwelling includes a living-dining area with an adjoining kitchen, one or two bedrooms, and a bathroom. In case of necessity, the project

73. Ufficio del Genio Civile di Reggio Calabria, *Opere di riparazione danni alluvionali (Legge 10/1/1952 n. 9). Lavori per la costruzione di 48 ricoveri stabili per le famiglie del Comune di Canolo non abbienti e non proprietarie rimaste senza tetto*, report signed by the chief engineer A. Brath, March 24, 1952, ASRC, Fondo del Genio Civile di Reggio Calabria, serie 1.3.8, *Lavori di costruzione di case popolari in 1952-1953 (3096) Canolo – Contabilità finale*, busta 309, fascicolo 1

74. ACC, Ministero dei Lavori Pubblici, Provveditorato regionale alle opere pubbliche per la Calabria, *Costruzione di 48 case popolari per le famiglie rimaste senza tetto in dipendenza delle alluvioni ottobre 1951 – importo 87.560.000*, letter sent to the Municipality of Canolo and the Civil Engineering Office of Reggio Calabria, July 11, 1952.

75. The contract was signed in August 1952. Ministero dei Lavori Pubblici, Ufficio del Genio civile di Reggio Calabria e impresa Licandro rag. Francesco (Reggio Calabria), *Lavori per la costruzione di 48 alloggi stabili per le famiglie del Comune di Canolo non abbienti e non proprietarie rimaste senza tetto. Opere di riparazione danni alluvioni. L. n. 9 del 10 gennaio 1952*, Contract, August 19, 1952, ASRC, Fondo del Genio Civile di Reggio Calabria, serie 1.3.8, *Lavori di costruzione di case popolari in 1952-1953 (3096) Canolo – Contabilità finale*, busta 309, fascicolo 1

76. Despite the start-up of the construction site, on August 8, 1952, the Prefecture of Reggio Calabria wrote to the Mayor of Canolo and the Civil Engineering Corps, stating that the latter could not provide an opinion regarding the construction of INA-Casa's public housing because «everything is subject to the approval by higher authorities of the proposal made by this office itself for the partial relocation of the Canolo settlement», Prefettura di Reggio Calabria, *Pianta planimetrica in scala 1.500 in triplice copia della Zona relativa all'area offerta per la costruzione di alloggi popolari dell'INA-Casa (deliberazione n. 4 del Consiglio Comunale del 12.1.1942)*, letter sent to the Mayor of Canolo and the Civil Engineering Corps, August 7, 1952, prot. 21309, ACC, *Designazione di area edificatoria per la costruzione di alloggi popolari INA-Casa in contrada Schiavone fiorentino del Comune di Canolo*, busta Eredi Ufficio tecnico geometra Pasquale Gangemi.

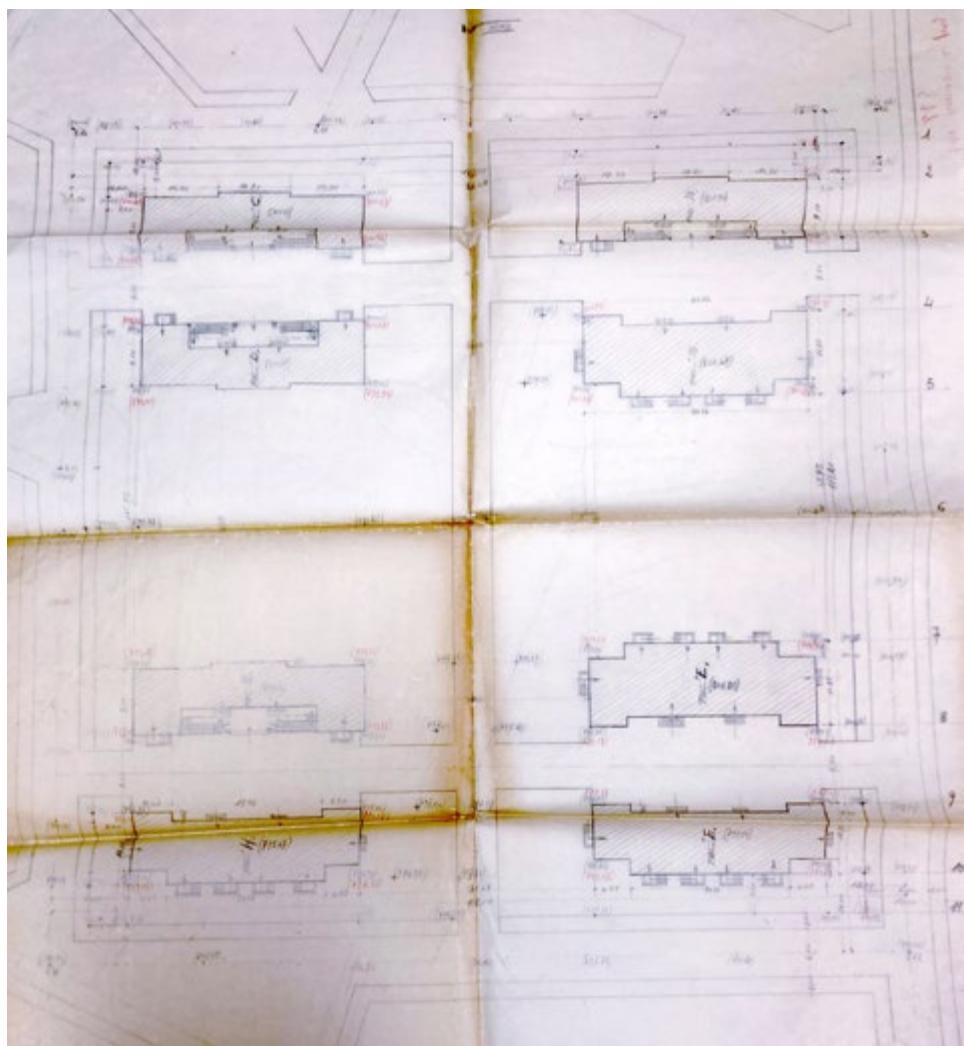


Figure 3. The spatial and planimetric distribution of the eight apartment buildings in the new residential center of Canolo, tieh the adjacent roads. Plan 1:200 (ASRC, Fondo del Genio Civile di Reggio Calabria, serie 1.3.8 *Lavori di costruzione di case popolari nel 1952-1953* (3096), Canolo - Contabilità finale, busta 309, fascicolo 1).

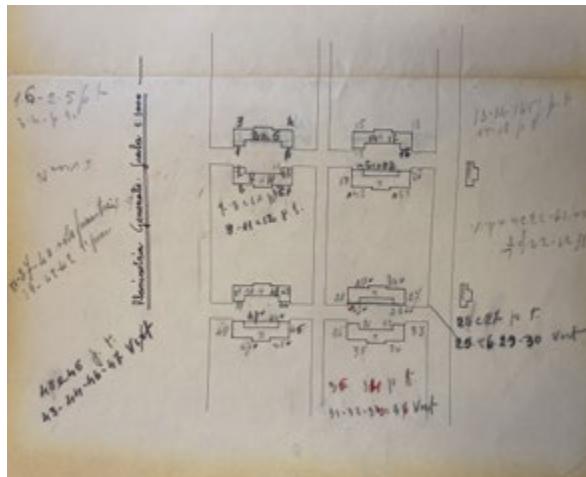


Figure 4. Ministry of Public Works, Office of Civil Engineering in Reggio Calabria, General plan and layouts of 48 housing units for flood victims in the Municipality of Canolo. The project is endorsed by Civil Engineering Corps, State Property, I.A.C.P., the Municipality, the construction company, the State Technical Office (*Ufficio tecnico erariale*), and the chief engineer of Civil Engineering Corps. General plan (ASRC, Fondo del Genio Civile di Reggio Calabria, serie 1.3.17 *Alluvione del 1951: Canolo 1953-1956* (4155), busta 74, fascicolo 1).

allowed for modifications to the internal layout of the apartments, ensuring the availability of houses with one to three bedrooms. Furthermore, on August 1, 1952, a project variant relocated the two external staircases leading to the upper floor «under an arcade covered by the building's roof itself, which, with this modification, acquires a more regular shape and becomes more convenient for snow removal»<sup>77</sup> (fig. 5a-b). The second type, Type B, also has a compact and symmetrical floor plan, as illustrated by the drawing of half of the building. These buildings are modified row houses with a simpler front composition compared to Type A. As with Type A, access to the apartments is independent from street level, with two units facing the building's sides. The two side-access units are on the ground floor and feature a living-dining-kitchen area, two bedrooms, and a bathroom. The four front-access units are arranged on two floors, also including a combined living-dining-kitchen area, two or three bedrooms, and a bathroom (fig. 6a-b). All the buildings face each other in pairs, with the open space at the rear being larger than the front space. No design of the open space is provided, except for the lot boundaries delineating the streets. The overall composition of the complex includes two community

77. Genio civile di Reggio Calabria, *Opere di riparazione danni alluvionali (Legge 10/1/1952 n. 9). Lavori per la costruzione di 48 ricoveri stabili per le famiglie del Comune di Canolo non abbienti e non proprietarie rimaste senza tetto*, variant to the project, report, August 1, 1952, ASRC, Fondo del Genio Civile di Reggio Calabria, serie 1.3.8, *Lavori di costruzione di case popolari in 1952-1953 (3096) Canolo – Contabilità finale*, busta 309, fascicolo 1.

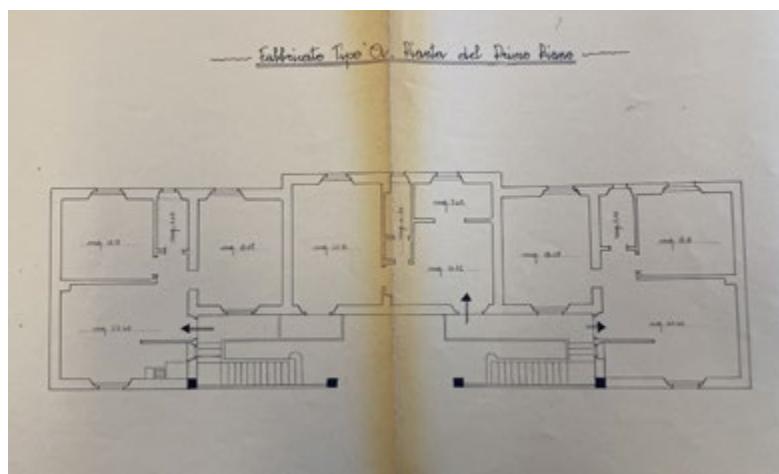
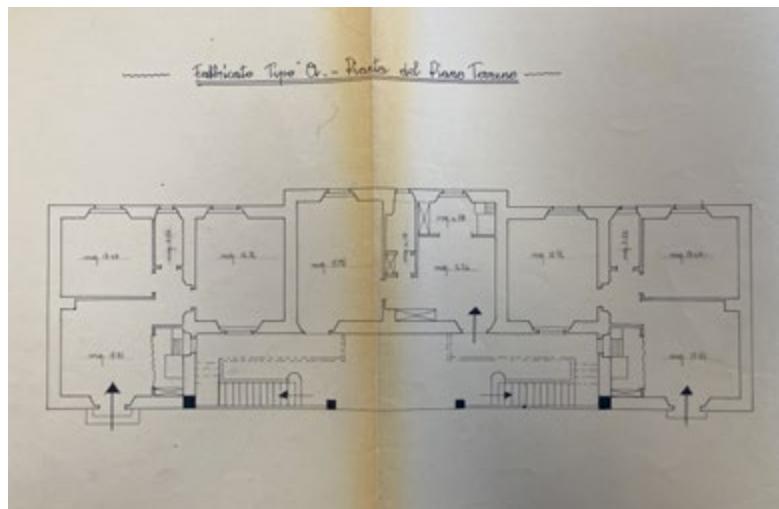


Figure 5a-b. Ministry of Public Works, Office of Civil Engineering in Reggio Calabria, General plan and layouts of 48 housing units for flood victims in the Municipality of Canolo. The project is endorsed by Civil Engineering Corps, State Property, I.A.C.P., the Municipality, the construction company, the State Technical Office (*Ufficio tecnico erariale*), and the chief engineer of Civil Engineering Corps. Plants of the typical building A (ground floor and first floor) (ASRC, Fondo del Genio Civile di Reggio Calabria, serie 1.3.17 *Alluvione del 1951: Canolo 1953-1956* (4155), busta 74, fascicolo 1).

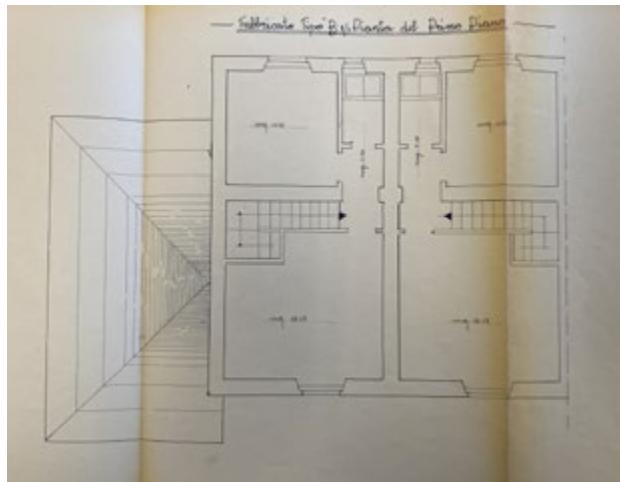
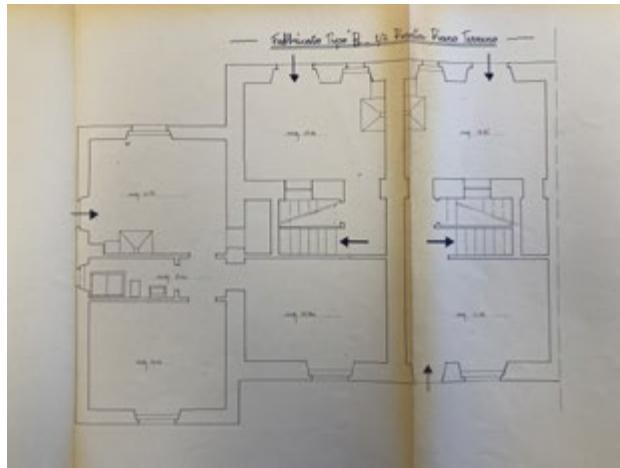


Figure 6a-b. Ministry of Public Works, Office of Civil Engineering in Reggio Calabria, General plan and layouts of 48 housing units for flood victims in the Municipality of Canolo. The project is endorsed by Civil Engineering Corps, State Property, I.A.C.P., the Municipality, the construction company, the State Technical Office (*Ufficio tecnico erariale*), and the chief engineer of Civil Engineering Corps. Plants of the typical building B (ground floor and first floor) (ASRC, Fondo del Genio Civile di Reggio Calabria, serie 1.3.17 *Alluvione del 1951: Canolo 1953-1956* (4155), busta 74, fascicolo 1).

buildings functioning as “bread ovens”. Each of these buildings features two chimneys and dedicated spaces for wood storage and processing (fig. 7).

During the construction phase, the company submitted frequent reports on the progress of the work and the interruptions encountered. In September 1952, activities continued «without any interruption with 60 workers»<sup>78</sup>, as there was an ample supply of concrete. However, on November 10, 1952, work at the construction site was suspended<sup>79</sup>, and a three-month extension to the construction contract was granted<sup>80</sup>. Work resumed on May 4, 1953, with 95 workers registered on May 16, 1953<sup>81</sup>, and the workforce increasing to 102 workers by May 28, 1953<sup>82</sup>. An additional extension was requested and granted on August 24, 1953<sup>83</sup>.

It quickly became clear that the buildings under construction were «clearly insufficient in number to provide housing for the homeless, namely all the people who lived in the 200 dwellings in the aforementioned area bounded by Tucci Street, Anacore Stallari Street, Crisimo Street, Castello

78. Ditta Licandro, *Cantiere per la costruzione di n. 48 alloggi per famiglie alluvionate nel Comune di Canolo. Rapporto dei lavori*, sent to the Civil Engineering Corps, September 3, 1952, ASRC, Fondo del Genio Civile di Reggio Calabria, serie 1.3.8, *Lavori di costruzione di case popolari in 1952-1953 (3096) Canolo – Contabilità finale*, busta 309, fascicolo 1.

79. Provveditorato regionale alle opere pubbliche per la Calabria, Catanzaro, *Alluvione 1951. Canolo. Lavori per la costruzione di 48 ricoveri stabili per famiglie non abbienti e non proprietarie rimaste senza tetto. Impresa Licandro rag. Francesco. Contratto 19/8/1952 n. 2859*, sent to the Civil Engineering Corps, January 17, 1953, ASRC, Fondo del Genio Civile di Reggio Calabria, serie 1.3.8, *Lavori di costruzione di case popolari in 1952-1953 (3096) Canolo – Contabilità finale*, busta 309, fascicolo 1.

80. On November 13, 1952, a 3-month extension was granted for the completion of the 48 housing units, Provveditorato regionale alle opere pubbliche per la Calabria, Catanzaro, *Alluvione 1951. Canolo. Costruzione di n. 48 ricoveri stabili per le famiglie non abbienti e non proprietarie rimaste senza tetto. Contratto 19/8/1952 n. 2859. Impresa Licandro rag. Francesco*, sent to the Civil Engineering Corps, ASRC, Fondo del Genio Civile di Reggio Calabria, serie 1.3.8, *Lavori di costruzione di case popolari in 1952-1953 (3096) Canolo – Contabilità finale*, busta 309, fascicolo 1.

81. Ditta Licandro, *Cantiere per la costruzione di n. 48 alloggi per famiglie alluvionate nel Comune di Canolo. 1° rapporto dalla ripresa 4-5-1953*, sent to the Civil Engineering Corps, May 6, 1953, ASRC, Fondo del Genio Civile di Reggio Calabria, serie 1.3.8, *Lavori di costruzione di case popolari in 1952-1953 (3096) Canolo – Contabilità finale*, busta 309, fascicolo 1.

82. Ditta Licandro, *Cantiere per la costruzione di n. 48 alloggi per famiglie alluvionate nel Comune di Canolo. 2° rapporto dalla ripresa*, to the Civil Engineering Corps, May 28, 1953, ASRC, Fondo del Genio Civile di Reggio Calabria, serie 1.3.8, *Lavori di costruzione di case popolari in 1952-1953 (3096) Canolo – Contabilità finale*, busta 309, fascicolo 1.

83. Provveditorato regionale alle opere pubbliche per la Calabria, Catanzaro, *Alluvione 1951. Canolo. Lavori per la costruzione di n. 48 ricoveri stabili per famiglie non abbienti e non proprietarie rimaste senza tetto. Contratto 19/8/1952 n. 2859 di rep. Impresa Licandro Francesco*, sent to the Civil Engineering Corps, August 24, 1953, ASRC, Fondo del Genio Civile di Reggio Calabria, serie 1.3.8 *Lavori di costruzione di case popolari in 1952-1953 (3096) Canolo – Contabilità finale*, busta 309, fascicolo 1.

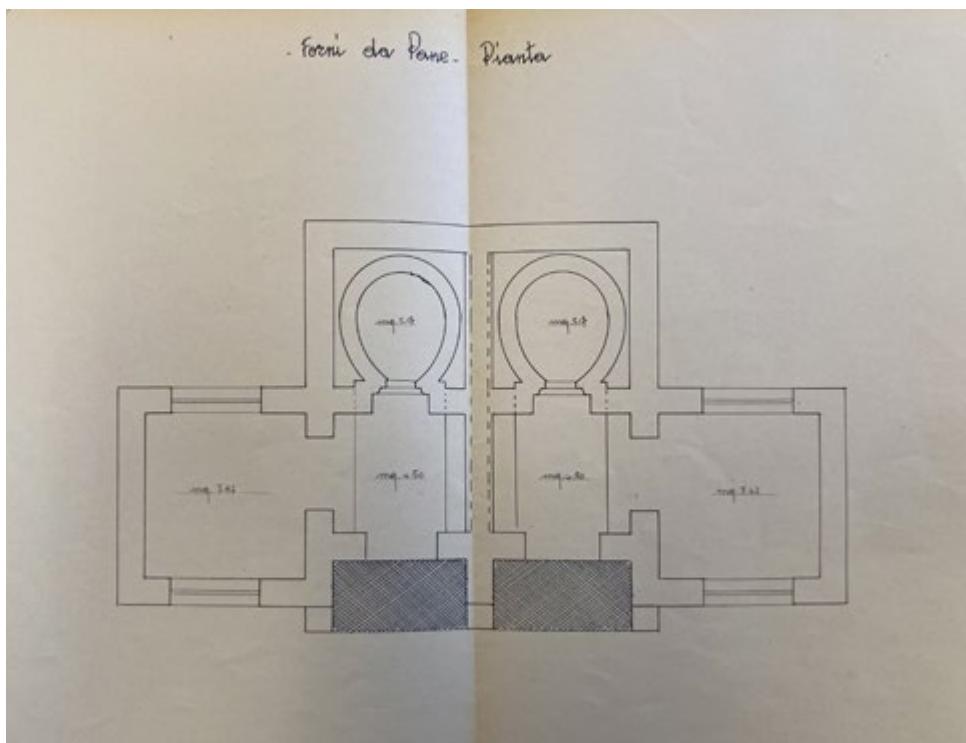


Figure 7. Ministry of Public Works, Office of Civil Engineering in Reggio Calabria, General plan and layouts of 48 housing units for flood victims in the Municipality of Canolo. The project is endorsed by Civil Engineering Corps, State Property, I.A.C.P., the Municipality, the construction company, the State Technical Office (*Ufficio tecnico erariale*), and the chief engineer of Civil Engineering Corps. Plant of the bread oven (ASRC, Fondo del Genio Civile di Reggio Calabria, serie 1.3.17 *Alluvione del 1951: Canolo 1953-1956* (4155), busta 74, fascicolo 1).

Street, and Camposanto Street, as well as in the overlying mountainous area». Consequently, on September 22, 1952, the Municipal Council of Canolo resolved «with the utmost urgency to commence the construction of at least a second batch of dwellings in the same location»<sup>84</sup>. To fulfill this mandate, on January 24, 1953, Mayor Giuseppe Lupis urged various institutions – including the Ministry of Public Works, the prefect, the Civil Engineering Corps, and others – to complete the work on the first batch of 48 dwellings, which had been insufficient for the disaster-stricken families and interrupted due to the harsh winter, and contract a second batch of 32 dwellings «to provide shelter for the homeless, evacuees, and disaster victims who, unfortunately, live in unhygienic and overcrowded conditions, with a considerable number of people in each room»<sup>85</sup>. This urgency was confirmed by chief engineer A. Brath of the Civil Engineering Corps, who wrote on March 20, 1953: «As soon as possible [...] the design of another 32 dwellings, already assigned by the Superior Directorate of Public Works to a private professional, will follow, as this office, due to the immense workload, is not in a position to address all the needs caused by the flood with the speed that would be required»<sup>86</sup>.

By January 1953, transfers began, and «34 flood-affected families from 1951 were sent [...] to the dwellings of Canolo Nuovo»<sup>87</sup>.

As mentioned, the initial houses in Canolo Nuovo were realized through the combined efforts of local actors and national government entities, which successfully channeled the resources of the «grand housing machine»<sup>88</sup> – the INA-Casa Plan (1949-1963), also known as the Fanfani Plan (Law N. 43/1949)<sup>89</sup> – towards the intervention in the Melia area. Just like in the rest of Italy, the INA-Casa

84. ACC, Comune di Canolo, *Secondo lotto di alloggi popolari per i senza tetto in contrada Schiavone Fiorentino*, Resolution of Municipal Council N. 26, September 22, 1952.

85. ACC, *Costruzione 2° lotto di case popolari per gli alluvionati senza tetto del Comune di Canolo*, Letter from the Mayor sent to the Minister of Public Works (Rome), Regional Public Works Administration (Catanzaro), Prefecture of Reggio Calabria, and Civil Engineering Corps of Reggio Calabria, January 24, 1953.

86. ACC, Ufficio del Genio Civile di Reggio Calabria, *Canolo. Danni maltempo*, letter from Chief Engineer A. Brath to the Prefect of Reggio Calabria, Regional Public Works Administration (Catanzaro), Mayor of Canolo, March 20, 1953, protocol No 7561.

87. ACC, Comitato comunale per l'assistenza ai sinistrati e sfollati, *Liquidazione spese*, deliberazione in bozza, 1954. The document is neither signed nor dated. Subsequently, in the current text, it is stated that the allocations were made in November-December 1953. It is assumed that some displaced families of workers were residing there from January 1953.

88. SAMONÀ 1949.

89. L. 43/1947, *Provvedimenti per incrementare l'occupazione operaia, agevolando la costruzione di case per lavoratori* (*Measures to increase employment, facilitating the construction of workers' housing*).

Plan contributed to the reconstruction of the housing stock here.

While it is true that, in the case of Canolo, reconstruction needs were particularly evident, it is important to emphasize the parallel but significant employment opportunities generated by the construction site in this depressed mountain area. This aligns with the primary objective of the plan, promoted by Amintore Fanfani (then Minister of Labour), who viewed the construction of houses for workers – even before the goal of meeting housing needs – as a means to boost employment through the construction sector<sup>90</sup>.

Other aspects that reflect the fundamental characteristics of INA-Casa interventions are also evident in Canolo. The two basic directives for the design of houses are adhered to: «contain housing costs without compromising quality [...] and promote the standardization of construction elements»<sup>91</sup>. The first aspect emerges in the construction solutions, which feature a balanced combination of wall elements (using stone in Canolo, although bricks were typically employed elsewhere) and reinforced concrete components, primarily built in situ. This system, traditional in Italy during that specific historical phase, is characterized by high labor investment and low technological innovation, except for the innovative precast concrete floors serving as structural bracing<sup>92</sup>. Regarding the second aspect, the repetition of building types in the Canolo complex is evident. As noted by the Civil Engineering Corps, these typologies, while tested<sup>93</sup>, appear more articulated than the «ideal types»<sup>94</sup> proposed in the INA-Casa design guides. In Type A, the aggregation of dwellings creates a semi-private double-height arcade space on the façade. This solution simplifies the roof plan while modulating the depths of the main building front with straightforward elegance. However, in the writer's opinion, the articulation of the façade continues to adhere to the criterion of «simplicity and straightforwardness of architectural forms [...] [without] departing from the strictest criteria of economy»<sup>95</sup>.

During construction, material choices were adapted, and criticism emerged regarding the

90. DI BIAGI 2001.

91. PIANO INCREMENTO OCCUPAZIONE OPERAIA. CASE PER LAVORATORI 1950, p. 39.

92. PORETTI 2001.

93. Piano incremento occupazione operaia, Case per lavoratori, Comitato di attuazione, *Stanziamento nel Piano del 5° anno, Delibera del Comitato n. 178 del 24 settembre 1953*, rif. 13567, document sent to INA-Casa office, Prefect of Reggio Calabria and Mayor of Canolo, September 24, 1953; ACC, *Designazione di area edificatoria per la costruzione di alloggi popolari INA-Casa in contrada Schiavone fiorentino del Comune di Canolo*, busta Eredi Ufficio tecnico geometra Pasquale Gangemi.

94. GABELLINI 2001, p. 103

95. PIANO INCREMENTO OCCUPAZIONE OPERAIA. CASE PER LAVORATORI 1950, p. 40.

buildings' suitability, with some noting that these «houses were ill-suited to withstand the harsh winter climate»<sup>96</sup>.

Overall, these apartment buildings depart from the urban model of the compact villages – the “nativity scene towns” (*paesi-presepi*) of Aspromonte – and introduce modern floor plan patterns of free construction in relation to the street grid. Furthermore, this small complex serves as an example of a limited intervention in a smaller center under the INA-Casa program, in contrast to the many large-scale social housing neighborhoods built in Italy's large and medium-sized cities. Ultimately, this complex represents the founding settlement of Canolo Nuovo and offers an opportunity to understand its integration into the emerging urban context.

## 6. *The Master Plan of Canolo Nuovo*

A year after the devastating flood, on October 10, 1952, at the Italian Chamber of Deputies, Undersecretary of State Ludovico Camangi responded to an inquiry submitted by Giacomo Mancini of Cosenza on November 22, 1951. Camangi outlined the measures implemented and ongoing in favor of the Municipality of Canolo: a «first intervention to safeguard the settlement against landslide threats», the «restoration of traffic on the provincial road Siderno-Agnana-Canolo», the «partial relocation of the Canolo settlement towards the mountains» in the Schiavone Fiorentino area on the Melia plains, «near the provincial road», where «48 homes [were under construction], while another 32 would start as soon as possible». Additionally, he mentioned the «preparation of the master plan, for which an expenditure of 10 million Italian»<sup>97</sup> lire was planned.

As announced in Parliament, during the same months, the master plan for the new settlement in Canolo Nuovo was indeed prepared. According to Law N. 445/1908, Article 70, the Office of the Civil Engineering Corps was responsible for preparing the master plan for the construction of new settlements for abandoned towns. The plan held the status of a detailed plan in relation to expropriation law. Furthermore, as stipulated by Law N. 9/1952, Article 2: «For the settlements to be relocated, the master plan is approved by the competent Directorate for Public Works or the Water Authority, bypassing all the rules and formalities prescribed by Law N. 445 of July 9, 1908». The

96. BRANCIFORTI 1987, p. 7.

97. Response from Undersecretary of State Ludovico Camangi to the parliamentary question by Giacomo Mancini to the Minister of Public Works (6711), presented during the session on November 22, 1951, Camera dei Deputati, *Atti Parlamentari, Discussioni*, afternoon session of October 10, 1952, p. 41.355.

recently approved Urban Planning Law N. 1150/1942 did not apply in this case. It was mandatory only for a specific list of municipalities, instead in Canolo the design was focused solely on the Schiavone Fiorentino location.

Thus, on June 1, 1953, «the master plan, dated October 27, 1952, for the "Contrada Schiavoni" location, selected for the partial relocation of the mentioned settlement [Canolo], prepared by this Office [Ministry of Public Works, Regional Directorate for Public Works for Calabria], was approved in all respects»<sup>98</sup>. The site plan was signed by architect Franco Armogida<sup>99</sup>. The master plan exclusively pertains to the new settlement and not to the entire municipality<sup>100</sup>.

The designer envisions a predominantly open residential center (fig. 8), consisting primarily of row houses with varying sizes of open spaces associated with the residences. In some cases, the grouping of residences forms open or closed courtyards of various shapes, creating urban blocks with a continuous street front; in other, more frequent cases, the buildings are arranged freely. The project includes two hierarchies of roads. The primary roads have a width of 9 meters, with sidewalks of 1.5 meters on each side, accompanied by open spaces associated with the residences. Where houses have direct street access, sidewalks are widened to 3 meters. The secondary residential roads feature a carriageway width of 6 meters, with 1.5 meter sidewalks on each side. The project also incorporates commercial structures – shops, a market, a hotel-restaurant, and truck parking – as well as an extensive range of services, including primary schools, a nursery, a municipal delegation, a church, a sports field, a public garden, recreational facilities, trade unions, a theater hall, a garage,

98. Provveditorato Regionale alle Opere Pubbliche per la Calabria, *Alluvioni autunno 1951. Trasferimento parziale abitati di Canolo. Piano Regolatore*, letter sent to the Civil Engineering Corps, July 14, 1953, ASRC, Fondo del Genio Civile di Reggio Calabria, Serie 1.3.26, *Trasferimento e consolidamento abitati, Canolo*. The master plan signed on October 27, 1952, was approved by Provisional Decree N. 8139 on June 1, 1953, and registered with the Court of Auditors on June 30, 1953, under registration number 8 LL.PP. fol. 342, ASRC, Fondo del Genio Civile di Reggio Calabria, Serie 1.3.26, *Trasferimento e consolidamento abitati, Canolo*.

99. Franco Armogida (1905-1957), born in S. Andrea Ionico, graduated from the School of Architecture in Rome in 1936. He passed the state examination in Venice in 1936 (belonging to the National Fascist Party since 1932; listed in the professional register in 1939; and held the position of Syndic in 1939) (Confederazione fascista dei professionisti e degli artisti 1940-1941). He was sometimes referred to as Francesco Armogida.

100. In fact, on May 7, 1954, in response to the request from the Prefect of Reggio Calabria (div. 4, prot. N. 793, dated April 1, 1954) to know if the municipality has a master plan (Law 1150/1942) and its status of implementation, the Mayor of Canolo replied that «this municipality has never had a master plan. However, a master plan for the new settlement of Canolo, located on the Milea plain, has been prepared by the Civil Engineering Corps of Reggio Calabria» (ACC, *Formazione elenchi di cui all'art. 2 della legge urbanistica 17/8/1942 n. 1150*; letter from the Mayor sent to the Prefecture of Reggio Calabria, May 7, 1954).

and a bus station. The orthogonal road grid in the central part of the new settlement does not align with the orientation of the INA-Casa complex, which remains fenced off and under construction at the edge of the plan. Notably, the buildings designated as bread ovens were completed and put into operation in August 1955<sup>101</sup>. To the north of the new urban development, sports facilities are situated. On the northeastern edge, the remaining service infrastructure – such as the church, town hall, and market – creates a series of public squares or courtyards. Beyond this area, to shield against prevailing winds, a strip of tall forest has been planned. The western boundary is defined by row houses and some isolated houses on large lots facing a road that integrates into the road network in a semicircle. Schools and the public garden are located “among the houses”, particularly adjacent to the INA-Casa buildings, either already constructed or in the design and construction phase at the time of the plan’s preparation. To the south, the road grid design anticipates potential expansion along a consistent orthogonal layout.

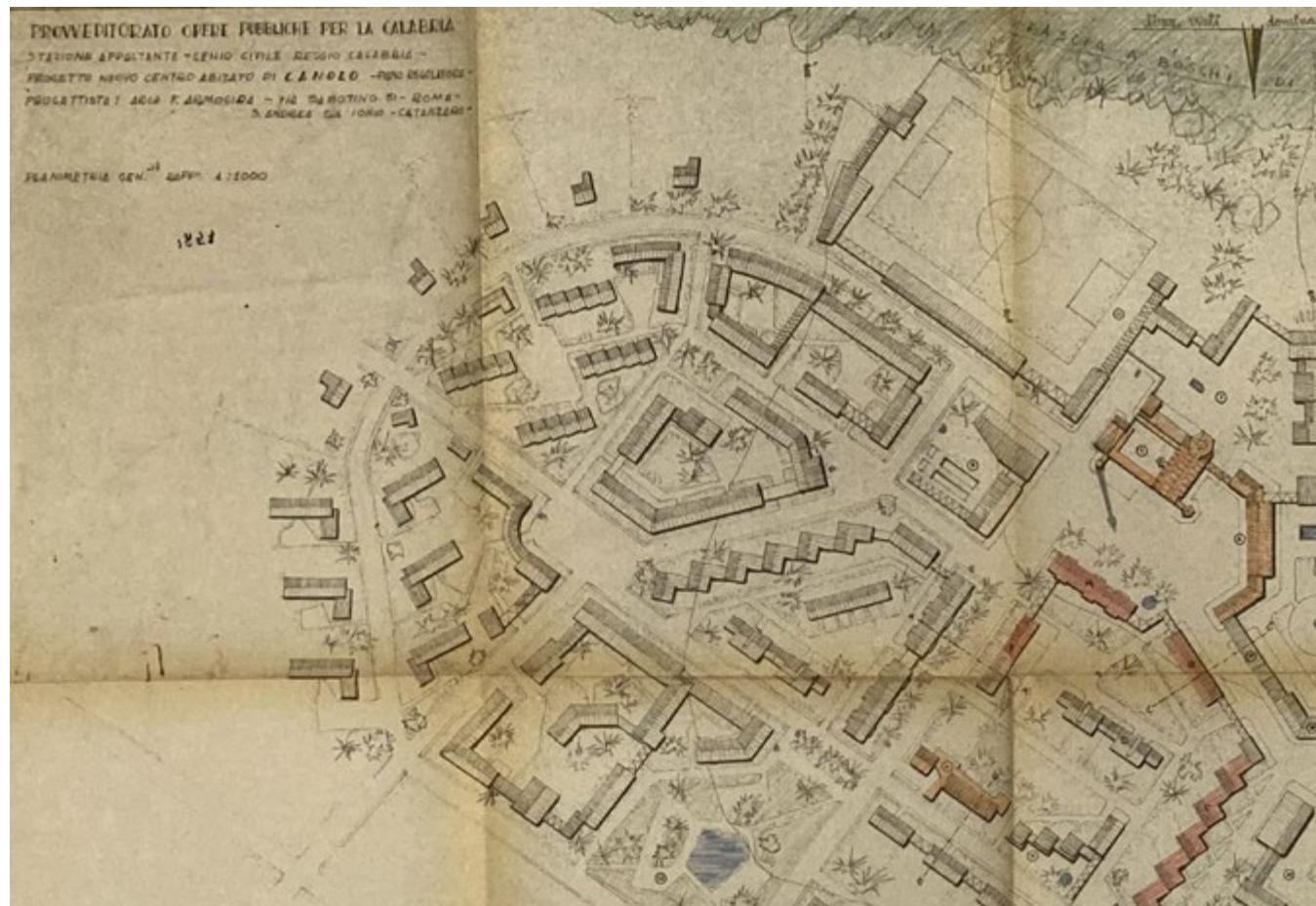
In addition to the master plan, Franco Armogida was commissioned by the Ministry of Public Works, Regional Directorate for Public Works for Calabria (Catanzaro), to design several public buildings (a school, the church, and the town hall) as well as residential buildings<sup>102</sup> that would implement the plan. Regarding the residential construction, the project concerns the second batch of homes intended for disaster-stricken families who were left homeless. Following an explicit request from the designer, the mayor granted him design freedom to define the building types<sup>103</sup>. The result is a «project that envisions the construction of 32 homes of five different types, according to the drawings»<sup>104</sup> (fig. 9). Each building consists of two floors, with each apartment including three or four

101. Comune di Canolo, *Consegna forni*, letter sent to the Civil Engineering Corps of Reggio Calabria and Prefect of Reggio Calabria, July 29, 1955, ASRC, Fondo del Genio Civile di Reggio Calabria, serie 1.3.8, *Lavori di costruzione di case popolari in 1952-1953 (3096) Canolo – Contabilità finale*, busta 309, fascicolo 1.

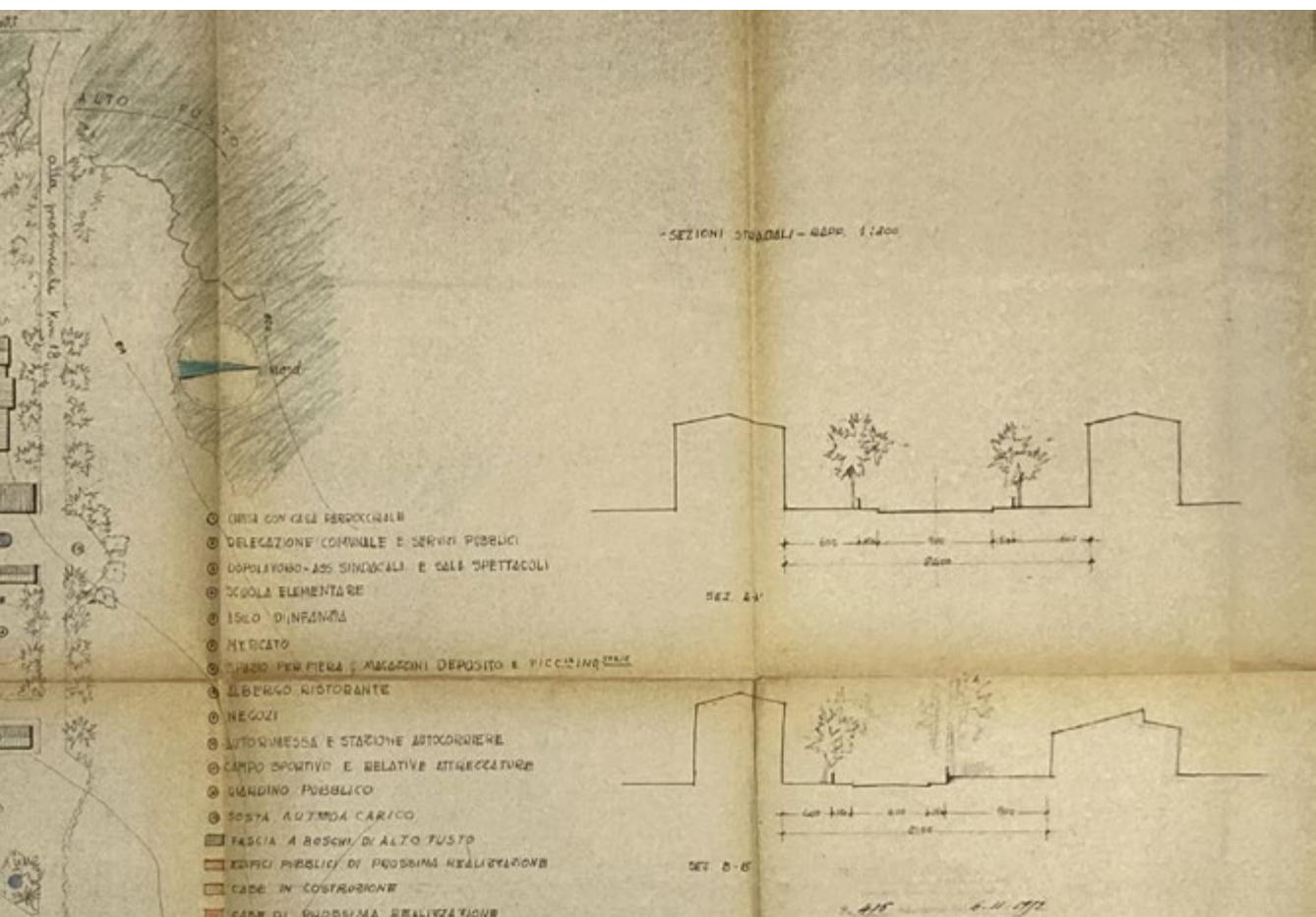
102. Ministero dei Lavori pubblici, Provveditorato Regionale alle opere pubbliche per la Calabria (Catanzaro), *Alluvione 1951. Canolo. Costruzione alloggi per senza tetto*, letter sent to the Ministry of Public Works, Prefecture of Reggio Calabria, Mayor of Canolo, Civil Engineering Corps of Reggio Calabria, February 12, 1953, protocol N. 3701, ACC. And Provveditorato opere pubbliche per la Calabria (Catanzaro), Ufficio tecnico del Genio Civile di Reggio Calabria, *Progetto per la costruzione di 32 alloggi per famiglie alluvionate nel Comune di Canolo (R. Calabria), per un edificio scolastico, una Delegazione Comunale ed una Chiesa da costruire tra la Piana S. Nicola, Schiavone e Ticchio alla altitudine di m. 881. Prog. Arch. Franco Armogida, S. Andrea Jonio (Catanzaro) V. Sabotino 31 – Roma. Contratto d'appalto*, May 13, 1953, ASRC, Fondo del Genio Civile di Reggio Calabria, serie 1.3.17, *Alluvione del 1951: Canolo 1953-1956 (4155)*, busta 74, fascicolo 1.

103. Business card of architect Armogida to the Mayor of Canolo and response letter from Mayor Lupis to architect Armogida, December 4, 1952, ACC.

104. Ufficio del Genio Civile di Reggio Calabria, *Opere dipendenti dall'alluvione dell'ottobre 1951. Legge 10/1/1952 n. 9, Progetto dei lavori di costruzione di n. 32 alloggi per ricovero di famiglie rimaste senza tetto nel Comune di Canolo*, report



On this and the next page, figure 8. Project for the new residential centre of Canolo. Master plan (Architect F. Armogida), Regional Public Works Administration for Calabria, contracting station Civil Engineering Corps of Reggio Calabria, October 27, 1952 (ASRC, Fondo del Genio Civile di Reggio Calabria, Serie 1.3.26, *Trasferimento e consolidamento abitati, Canolo*).



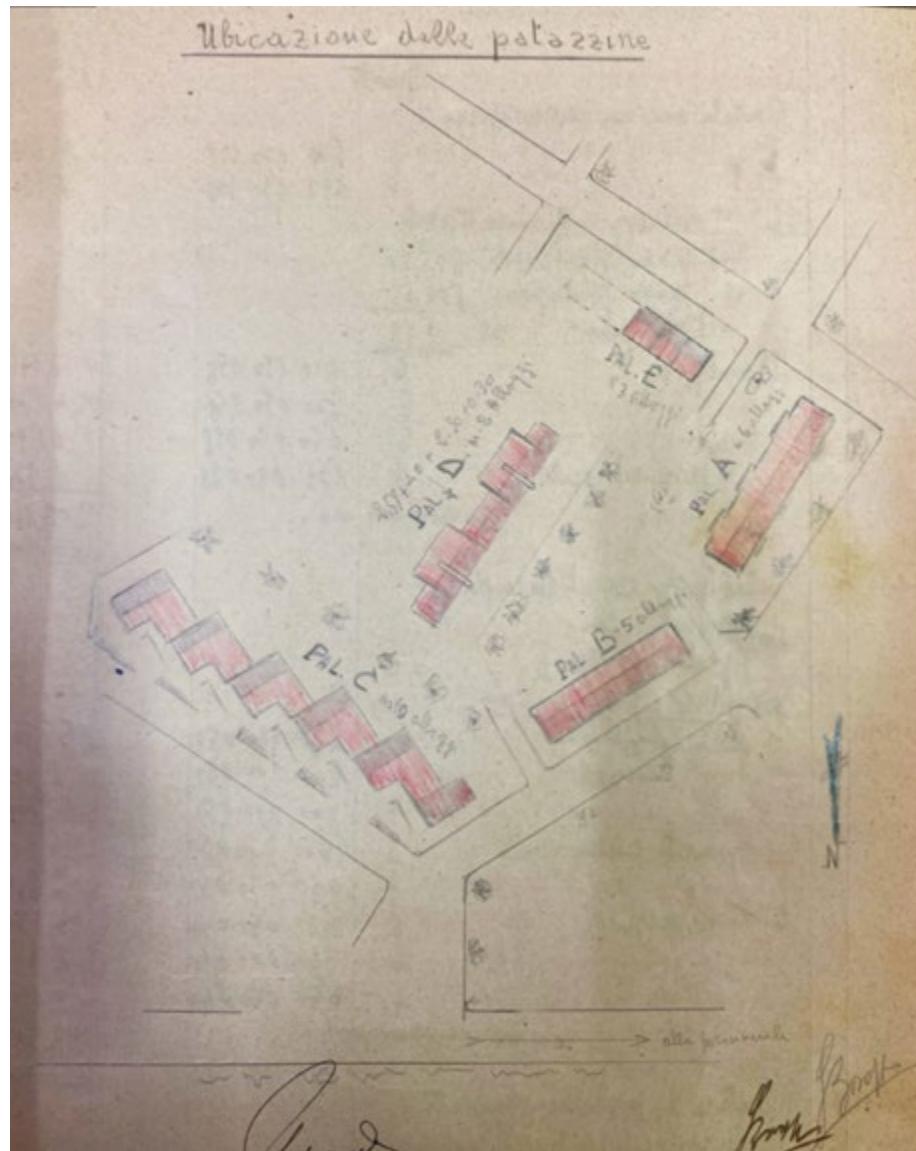


Figure 9. Project of 32 housing units distributed in 5 separate buildings with different architectural typologies (the so-called "second batch"). Attached to the "Booklet of Measurements" compiled by the Civil Engineering Corps on April 1, 1954, designer architect Franco Armogida. (ASRC, Fondo del Genio Civile di Reggio Calabria, serie 1.3.17 Alluvione del 1951: Canolo 1953-1956 (4155), busta 74, fascicolo 1).

rooms, in addition to a kitchen and a bathroom. The structure is made of stone masonry and cement mortar on concrete foundations, with asbestos cement sheets laid in the Roman style on wooden boards for the roofs<sup>105</sup>.

By resolution dated October 29, 1952, the Municipal Council granted, free of charge, the land needed for the «construction of public buildings, stable shelters, an aqueduct, and a cemetery, for the families of the Municipality of Canolo who are not well-off, do not own property, and remain homeless». Additionally, the Council formally declared «ownership of the friar Nicola spring, transferring it for the construction of the new aqueduct»<sup>106</sup>. This formal resolution allowed the planning and execution of the aforementioned works to proceed in accordance with the master plan, which, though still pending approval, had already been prepared, as noted earlier.

Despite the municipality's diligence, the acquisition of the projects for both public services and housing took considerable time. In the early months of 1953, Mayor Lupis urged the delivery of the projects to «comrade Armogida», stating the need to «address the situation with utmost urgency

of chief engineer A. Brath, May 13, 1953, ASRC, Fondo del Genio Civile di Reggio Calabria, serie 1.3.17, *Alluvione del 1951: Canolo 1953-1956 (4155)*, busta 74, fascicolo 1.

105. ACC, Ministero dei Lavori Pubblici, Ufficio del Genio Civile di Reggio Calabria, *Opere dipendenti dall'alluvione 1951 (Legge 10-1-1952 n. 9). Verbale di consegna da parte del Genio Civile all'Istituto Autonomo per le Case Popolari in Provincia di Reggio Calabria del gruppo di case popolari costruito nel Comune di Canolo località Canolo nuovo, composto di n. 5 fabbricati con complessivi n. 32 alloggi*, February 1, 1956.

106. ACC, Comune di Canolo, *Concessione gratuita di suoli edificatori di parte delle seguenti particelle del foglio n. 7 – n.ri 25, 26, 7, 14, 20, 16, 17 e 18 per i lavori di costruzione di ricoveri stabili ai senza tetto*, resolution of the Municipality Council, N. 33, October 29, 1952 (ACC\_Feb\_1952\_10\_29\_DelCC33\_CostruzioneRicoveriStabili: 1-2). Regarding the ownership of the lands granted for free by the municipality for the implementation of the master plan, it's important to note that resolution N. 33 of 1952 will be partially questioned in relation to a cadastral parcel (parcel 14 of sheet 7) because it is listed at the head of the Bishop's Mess in Geraci according to cadastral sources (ACC, Ufficio del Genio Civile di Reggio Calabria, *Attuazione del piano regolatore per il parziale spostamento dell'abitato*, letter from Chief Engineer R. Accinni to the Mayor of Canolo, September 16, 1954, N. 18450). This pending matter will be regulated by the Civil Engineering Corps of Reggio Calabria on July 18, 1955, through an expropriation for public utility «for the works to implement the master plan for the partial relocation of the Canolo settlement due to the 1951 flood» (Ufficio del Genio Civile di Reggio Calabria, *Espropriazioni per causa di pubblica utilità. Elenco n. 1 descrittivo dei beni da espropriare per i lavori di attuazione del Piano regolatore per il parziale spostamento dell'abitato di Canolo in dipendenza dell'alluvione 1951*, July 18, 1955, ASRC, Fondo del Genio Civile di Reggio Calabria, Serie 1.3.26, *Trasferimento e consolidamento abitati, Canolo*) and reported again on January 21, 1986 (Ufficio del Genio Civile, *Espropriazione per i lavori di attuazione del Piano regolatore per il parziale spostamento dell'abitato di Canolo Alluvione 1951*, letter sent to the Municipality of Canolo, January 21, 1986, ASRC, Fondo del Genio Civile di Reggio Calabria, Serie 1.3.26, *Trasferimento e consolidamento abitati, Canolo*). The process involves an extensive folder at the State Archive of Reggio Calabria, which has allowed the reconstruction of many steps related to the partial relocation of Canolo, thanks to the systematic documentation it contains.

to assist the homeless in this municipality, also because the population is aware that the project has been entrusted to the hands of a communist, and it is our intention to avoid giving rise to false propaganda by our opponents»<sup>107</sup>. On July 7, 1953, following the awarding of the works, the Office of the Civil Engineering Corps wrote to architect Armogida, requesting him to «send copies of the drawings for house types A, B, C, D, and E (32 apartments), as well as for the school building and the master plan»<sup>108</sup>. As for the church and town hall, on November 18, 1954, the mayor once again urged the Civil Engineering Corps<sup>109</sup>, and on January 29, 1955, he reiterated the request to the designer through Member of Parliament Eugenio Musolino at the Chamber of Deputies, reaffirming the political affiliation of «our comrade» Armogida<sup>110</sup>.

The dual necessity – on one hand, for the approval of the master plan to ensure a formal legal process, secure resources, and provide coherence to the interventions, and on the other, the urgency of delivering houses and essential services to the residents of the new settlement – contributed to shaping a new concept of a “village” in Canolo.

Firstly, the proposed urban-rural model differs significantly from the traditional one found in the hill-mountain towns of Calabria, such as the *paese-presepe* (nativity scene village)<sup>111</sup>. Canolo Vecchio, perched on steep terrain, features a compact layout that has adapted over centuries to the slopes of the pre-Aspromonte hills and to slow, incremental construction. The buildings follow an organic settlement pattern, with continuous street-front facades. The roads, designed before the advent of automobiles, are generally narrow, lack sidewalks, and include small dimensions. On steep slopes, connections are made through stairs or stepped pathways. The predominant buildings are modest and ordinary, with few monumental structures. The main services, such as the municipality and post office, align along the main drivable road axis, which connects the town to the Ionian

107. ACC, Letters from Mayor Lupis urging the architect “comrade Armogida” to submit designs for the construction of the 2nd batch of housing for the homeless, January 25 and March 13, 1953.

108. Ufficio del Genio Civile di Reggio Calabria, *Lavori nuovo centro abitato di Canolo*, *Lettera inviata all’architetto Armogida*, July 7, 1953, ASRC, Fondo del Genio Civile di Reggio Calabria, serie 1.3.17 *Alluvione del 1951: Canolo 1953-1956* (4155), busta 74, fascicolo 1.

109. Comune di Canolo, *Costruzione chiesa ed edificio municipale in Canolo nuovo. Redazione progetti*, letter sent to the provincial office of Civil Engineering Corps, November 18, 1954, ASRC, Fondo del Genio Civile di Reggio Calabria, serie 1.3.8, *Lavori di costruzione di case popolari in 1952-1953 (3096) Canolo – Contabilità finale*, busta 309, fascicolo 1.

110. ACC, Letters from Mayor Lupis sent to honorable Musolino to act as an intermediary and request the project plans from architect Armogida, January 29, 1955.

111. SORIERO 1985.

coast. This traditional urban model contrasts fundamentally with the planned village envisioned for Canolo Nuovo. The establishment of the INA-Casa residential complex led to a reconsideration of building typologies, which are distinct from the traditional houses of the *paese-presepe*. Modern architectural principles – albeit applied in a modest and minimal form – introduced for instance essential technical service spaces and necessary ventilation systems. The master plan proposes an entirely different settlement form, blending elements reminiscent of Howard's Garden City<sup>112</sup> and rural villages developed through agrarian reform<sup>113</sup>, or the contemporary experience of Ludovico Quaroni in La Martella, Matera<sup>114</sup>. It is worth noting that both Armogida and Quaroni lived in Rome, but we have not information of respective influences. However, in the absence of drawings of residential typologies or a detailed plan report – which were likely not requested – it is impossible to confirm whether the dwellings retained a rural character. What is certain, however, is that the INA-Casa homes did not incorporate any functional combination of living and agricultural work. Finally, the morphology of the terrain also played a significant role in creating a radically different urban layout compared to the traditional hill and mountain towns of Calabria.

Secondly, it is worth noting the apparent indifference of the master plan towards the INA-Casa intervention. In the urban planning document, the INA-Casa complex is considered an external presence, with only the perimeter of the buildings outlined in a single related lot, surrounded by roads and lacking any dialogue with the proposed new context. It appears almost as though it were an insignificant pre-existence, despite its axial alignment with the provincial connecting road clearly delineated in the plan.

Thirdly, it is important to emphasize the extensive provision of services aimed at creating a self-sustaining urban context, encompassing both private and public offerings. However, the list of planned services appears to lack collective facilities appropriate for an agricultural and artisanal context and instead seems more consistent with a modestly sized urban context.

Fourthly, the planning process presented here demonstrates that the idea of a future village primarily results from professional technical work, in the absence of broader local collective discussion. The designer conducted a site visit<sup>115</sup> and, based on the available documentation,

112. HOWARD 1902.

113. PONTRANDOLFI, RAGUSO 2022.

114. QUARONI 1981

115. ACC, Business card of architect Armogida to the Mayor of Canolo and response letter from Mayor Lupis to architect Armogida, December 4, 1952.

the limited dialogue – while respecting areas of expertise – was primarily between the designer Armogida, parliamentarian Musolino, mayor Lupis, and the Civil Engineering Corps, acting as the client. It should be noted that the first three had political affiliations within the same party, as evidenced in the available correspondence.

Finally, there is a continuous interplay of references between planning, formal approval, and implementation of interventions, where in several cases realization precedes formal acts. For instance, construction begins before the formal contract is signed, or the master plan influences the space even before its formal approval.

## 7. The Construction Site Delivers Houses, Services, and Employment

According to periodic reports on the state of the construction site, by October 1953, the first 48 housing units were in the final stages of completion<sup>116</sup>, while roads, the school, the second phase of housing (five buildings), and the sewage system were under construction<sup>117</sup>, with the sewage system completed only in December 1955<sup>118</sup>. The flood of October 20-23, 1953, caused damage to the construction sites but without significant setbacks<sup>119</sup>.

It was only in the spring of 1954 that the designs for the electrical and public lighting systems were prepared<sup>120</sup>, and designs for the church, the municipality, and the barracks were solicited, with the

116. Impresa Francesco Licandro, *Rapporto sull'avanzamento del cantiere di Canolo*, sent to the Civil Engineering Office, October 23, 1953, ASRC, Fondo del Genio Civile di Reggio Calabria, serie 1.3.8, *Lavori di costruzione di case popolari in 1952-1953 (3096) Canolo – Contabilità finale*, busta 309, fascicolo 1.

117. Impresa Francesco Licandro, *Rapporto sull'avanzamento del cantiere di Canolo*, sent to the Civil Engineering Office, October 9, 1953, ASRC, Fondo del Genio Civile di Reggio Calabria, serie 1.3.8, *Lavori di costruzione di case popolari in 1952-1953 (3096) Canolo – Contabilità finale*, busta 309, fascicolo 1.

118. *Richiesta di riassegnazione di una casa per famiglie numerose a Canolo nuovo*, lettera di Carlo Marini inviata al Comune di Canolo, December 23, 1955, ACC, busta Eredi Ufficio tecnico geometra Pasquale Gangemi and Ministero dei Lavori Pubblici, Provveditorato Regionale alle opere pubbliche per la Calabria, Ufficio del Genio Civile di Reggio Calabria, *Lavori per la costruzione di n. 32 alloggi per famiglie alluvionate nel Comune di Canolo*, report, inspection's minutes, and certification of testing, October 26, 1956, ASRC, Ufficio del Genio Civile di Reggio Calabria, serie 1.3.17, *Alluvione del 1951: Canolo 1953-1956 (4155)*, busta 74, fascicolo 1.

119. Impresa Francesco Licandro, *Rapporto sull'avanzamento del cantiere di Canolo*, sent to the Civil Engineering Office, October 23, 1953, ASRC, Fondo del Genio Civile di Reggio Calabria, serie 1.3.8, *Lavori di costruzione di case popolari in 1952-1953 (3096) Canolo – Contabilità finale*, busta 309, fascicolo 1.

120. Prefettura di Reggio Calabria, *Opere pubbliche in Canolo nuovo*, letter sent to the Civil Engineering Department, Regional Public Works Administration, Mayor of Canolo, March 13, 1954, prot. 10237, ACC, busta Canolo nuovo Opere

«related projects [...] entrusted to the dear colleague Armogida»<sup>121</sup>. The urgency of these requests stemmed from the fact that, once the housing construction was completed, the residents of the new center would be left unemployed<sup>122</sup>. Additionally, in June 1954, the mayor urged the completion of the civic aqueduct and the water distribution network to individual homes<sup>123</sup>. On September 30, 1954, the Cassa per il Mezzogiorno (Southern Italy Development Fund) announced that it would take charge of building the nursery<sup>124</sup>.

On November 8, 1953, the Civil Engineering Office formally transferred the new housing units to the municipal administration<sup>125</sup>, and between November and December, the allocation of housing units to 48 displaced families began<sup>126</sup>. The process of allocating the constructed housing units<sup>127</sup> and land to private individuals for new home construction constitutes a separate study supported by available archival documents. It is worth noting that the allocation of land followed a subdivision plan that abandoned Armogida's open urban layout design in favor of a continuous row house design

pubbliche 1954 and Ufficio del Genio Civile di Reggio Calabria, *Opere pubbliche in Canolo nuovo*, letter sent to the Prefecture of Reggio Calabria and to the Municipality of Canolo, May 4, 1954, n. 13848, ACC, busta Canolo nuovo Opere pubbliche 1954.

121. *Costruzione di edifici pubblici nel nuovo abitato di Canolo*, letter of Mayor Lupis sent to the «dear comrade Armogida», March 28, 1954, ACC, busta Canolo nuovo Opere pubbliche 1954.

122. *Costruzione edificio municipale e chiesa*, letters of the Municipality of Canolo sent to architect Armogida, September 1, 1954, prot. 2032, ACC, busta Canolo nuovo Opere pubbliche 1954.

123. ACC, *Abitato di Canolo nuovo. Distribuzione idrica nelle abitazioni*, letter of the Mayor to the chief engineer of Reggio Calabria's Civil Engineering Corps, June 4, 1954.

124. ACC, Prefettura di Reggio Calabria, *Utilizzazione dei cantieri di lavoro per la costruzione di scuole elementari e materne. Determinazione intervento Cassa Mezzogiorno*, September 30, 1954, N. 40588.

125. Fonogram N. 92 from the Locri Section to the Civil Engineering Corps of Reggio Calabria, November 8, 1953, ASRC, Fondo del Genio Civile di Reggio Calabria, serie 1.3.8, *Lavori di costruzione di case popolari in 1952-1953 (3096) Canolo – Contabilità finale*, busta 309, fascicolo 1.

126. ACC, Comune di Canolo, *Verbale di assegnazione provvisoria di 12 alloggi costruiti nel nuovo abitato di Canolo*, November 10, 1953, busta Eredi Ufficio tecnico geometra Pasquale Gangemi and Comune di Canolo, *Elenco delle famiglie sfollate da questo centro per essere avviate nel nuovo abitato di Canolo*, December 18, 1953.

127. In 1954 the *Commission for the temporary allocation of housing in the new settlement of Canolo* (48 units) was composed of the designated prefecture official, the Mayor, the commander of the Carabinieri Station, and the parish priest. The allocation was done through a lottery (ACC, Comune di Canolo, *Verbale di assegnazione provvisoria di numero 35 alloggi costruiti nel nuovo abitato di Canolo*, January 14, 1954, busta Eredi Ufficio tecnico geometra Pasquale Gangemi). Instead, for the allocation of the subsequent 32 housing units in 1956, the commission comprised the Mayor, the Carabinieri brigadier, a flood victim, and a prefectoral official (ACC, Comune di Canolo, *Assegnazione case agli alluvionati*, February 28, 1956, busta Eredi Ufficio tecnico geometra Pasquale Gangemi).

along the road front. This orthogonal grid formalized the urban layout into a sequence of low, linear buildings<sup>128</sup>.

The vitality of Canolo Nuovo can be confirmed, in the author's opinion, by noting, on the one hand, the mayor's directive to the doctor to provide medical assistance «in the new settlement of Canolo (Melia), twice a week, to the resident families». This prompted the doctor, on November 13, 1953, to request the «establishment of a regularly equipped clinic and the temporary allocation of housing consisting of three rooms: one for the clinic, one for sanitary needs, and the third for the midwife's use»<sup>129</sup>. On the other hand, confirmation comes from the mayor's request on February 8, 1954, to the prefect to establish a pharmacy in Canolo Nuovo, where 231 people lived, compared to 1,881 residents in Canolo Vecchio<sup>130</sup>.

At the local level, the relocation seemed to be an opportunity for many residents. On January 19, 1954, the Municipal Council requested the complete relocation of Canolo's settlement<sup>131</sup>. However, the prefecture refused, stating that «no new events have occurred that could affect another part of the settlement beyond the "Crisimo" district, for which the relocation has already been decreed»<sup>132</sup> following the flood of 1951.

This underscores the duality of the town of Canolo. Both places in this dual village have houses and services, both are alive and have a history – one ancient and the other recent – and share a common, recognizable characteristic: both were primarily engaged in rural agricultural and silvo-pastoral economies that primarily occurred outside the residential center, which notably lacked rural features. The urban development undertaken in the early 1950s serves as clear evidence of this. This non-rural character was accentuated by the fact that, in those years, the construction sector became the main source of employment for residents in Canolo Nuovo.

#### *8. Some Criticisms of the Urban Planning in Canolo Nuovo*

128. Ministero dei Lavori Pubblici, Ufficio del Genio Civile di Reggio Calabria, *Piano regolatore di Canolo. Piano di lottizzazione degli scomparti*, map 1:500, 1956 or 1958, ASRC, Fondo del Genio Civile di Reggio Calabria, Serie 1.3.26, *Canolo*.

129. ACC, Letter from the local doctor sent to the Mayor of Canolo, November 13, 1953.

130. ACC, Comune di Canolo, *Assistenza farmaceutica*, February 8, 1954, prot. 263.

131. ACC, Comune di Canolo, *Richiesta di spostamento totale dell'abitato di Canolo*, Resolution of the Municipal Council N. 4, January 19, 1954, busta Canolo nuovo Opere pubbliche 1954. At the current state of the research, the first page is available, but not the text of the resolution.

132. ACC, Prefettura di Reggio Calabria, *Richiesta di spostamento totale dell'abitato*, letter sent to the Mayor of Canolo, March 20, 1954, prot. 7738, busta Canolo nuovo Opere pubbliche 1954.

Following the partial implementation of the master plan on October 27, 1952, and the subsequent relocation of residents, it is useful to examine critical opinions about the urban layout of this settlement.

In the 1973 Building Plan (*Piano di fabbricazione*) report, it is argued that it was «an intervention of rare urban myopia [...] in which a modest urban layout was supplemented by a construction project where the squalor of the typological aspect is made even more evident by the poor execution. The result is a sort of military-looking satellite town that not only raises doubts about its precise purpose but also ends up distorting the remarkable landscape qualities of the area»<sup>133</sup>. The criticism is broad, addressing the choice of location, the urban layout, and the design of residential buildings. Observations highlight long periods of inactivity, attributed to a «predominantly agricultural-forestry economy [...] which leaves the village semi-abandoned during the winter season»<sup>134</sup>.

Indeed, the 1971 census records 1,479 inhabitants in the municipality of Canolo, with 860 habitable units occupied and 894 unoccupied. Among these, there were 678 residents in Canolo town (with 380 habitable units occupied and 262 unoccupied), 271 residents in Canolo Nuovo (with 167 habitable units occupied and 423 unoccupied), and 530 residents in the countryside (with 313 habitable units occupied and 209 unoccupied)<sup>135</sup>. This prompted Carlo Lissoni, the designer of the 1973 *Piano di fabbricazione*, to propose an expansion of the hillside settlement for a different purpose. Since in 1972 over 400 construction requests were submitted to the Municipality, there was a suggestion to build tourist residences<sup>136</sup>, echoing a previously made proposal by Senator Musolino.

Another criticism concerns Canolo and several other new towns in Calabria designed during those years. Their «layouts [...] are [...] anonymous and do not reflect any formal intention [...], as there is no discernible intervention logic»<sup>137</sup>. In the same volume on relocated towns in Sicily and Calabria following abandonment, these phenomena are considered forms of violent transformation, resulting in urban models disconnected from the traditional settlement systems<sup>138</sup>.

Although not explicitly referring to Canolo, Giuseppe Soriero, in the book *La Calabria*, part of the *History*

133. ACC, Comune di Canolo, *Piano di fabbricazione. Relazione*, Resolution of the Municipal Council N. 63, May 16, 1973, p. 5.

134. *Ivi*, p. 9.

135. *Ivi*, p. 8.

136. *Ivi*, p. 16.

137. BRANCIFORTI 1987, p. 15.

138. BELLAGAMBA 1987.

of Italy (*Storia d'Italia. Le regioni dall'Unità ad oggi*) series published by Einaudi, expresses doubts about the relocation of inland towns. He discusses the «violence of the disarray and [...] the alien nature of the new settlements. One image represents the territory; another idea emerges from those constructions. The new interventions, in fact, within this framework of structural backwardness that persists, overlap without integrating with the environment. It is the effect resulting from the limited inclination to address the reasons underlying the decay»<sup>139</sup>. These reasons are attributed to both the public intervention of the state and the actions of those who inhabit these spaces. He reiterates that, in essence, «external models are superimposed on that environment, reaffirming the idea of temporariness»<sup>140</sup>, assigning an environmental precariousness to the new neighborhoods built by the state.

These reflections, whether specific to Canolo or more general, invite consideration of the diversity in settlement patterns, which only partially depends on the specific mountainous-hilly context. In the view of the author, in a more radical sense, two models of urban spatiality are being questioned. On the one hand, the traditional model of the compact historic city is characterized by the dominance of “contact space”, as Françoise Choay<sup>141</sup> considers it the defining feature of the medieval European city. Continuity, proximity, dense patterns, compressed fabric, and limited fields of vision define a spatial relationship where everything is interconnected, and where full and empty spaces play identical roles. In Europe, human corporeality has a long-standing familiarity with this figure of space; it is instinctively recognized. On the other hand, there is the space of the modern city, where the street separates from the nearby buildings, and open space shapes the relationships between parts, with emptiness prevailing over fullness. Circulation, functionality, ventilation, health, and individuality are the defining characteristics of modernity that shape the small and large cities of the 20<sup>th</sup> century. Introducing this new spatial articulation into the “backward” Calabrian context represents a significant logical and perceptual leap, which many observers perceive as foreign.

#### *9. Conclusions: Energies for an Unfinished Rebirth Elsewhere*

In 1951, the Municipality of Canolo had 2,267 inhabitants distributed between the historic town and the countryside. Following the flood in late October of the same year, the community began the process of establishing a new settlement. Although it became a dual town, the area's population declined. By 1961, the population had decreased to approximately 1,900, in 1971 to

139. SORIERO 1985, p. 758.

140. *Ibidem*.

141. CHOAY 2003.

1,550, and by 2016, approximately 722 inhabitants – roughly one-third of the 1951 population – were distributed among Old Canolo Centro (193), New Canolo (311), and the countryside (218)<sup>142</sup>. The new settlement gained greater demographic weight over time.

Tracing the events of the relocation takes on significant meaning. The attempt at rebirth elsewhere, albeit only partially completed, has been reconstructed thanks to the archival documentation discovered. This has highlighted the efforts, intelligence, and expertise involved, as well as the spaces created during the founding years of Canolo Nuovo. Three key aspects are worth summarizing.

### 9.1 About the Decision-Making Process

The first aspect concerns the decision-making process that unfolded in conjunction with the calamitous event and the relocation project, where emergency management decisions were closely intertwined with plans for the community's future.

Firstly, a *variety of local and national institutional actors*, along with influential members of the local community – such as the doctor, parish priest, commander of the carabinieri barracks, teachers, unionists, and others – were involved in significant decisions, such as selecting the location for the new settlement. The allocation of housing to families was similarly a shared responsibility of civil and religious authorities. Expert opinions, both decisive and respected, were balanced between professional competence and political pressures.

Secondly, the *alignment of local and national parliamentary pressures* illustrates effective political interaction in addressing local demands at the central government level. Close political-party relationships between left-wing parliamentary representatives and local administrators contributed to this, as did the lobbying abilities of elected officials from Calabria. A narrative of these relationships could be the subject of further research beyond this study.

Thirdly, the *catastrophe served as an opportunity to implement previously discussed ideas*, such as the choice of location for the new center. This location was already under consideration before the flood, both at the institutional level (it was the hypothesized site for an INA-Casa intervention) and within the local community (which was familiar with the area for agriculture and forestry). The Citizens' Committee for post-flood relief ratified the choice and proposed the location to higher-level authorities. Similarly, the State had already suggested housing resources (INA-Casa) for small settlements, not solely in response to disasters, though such events catalyzed decision-making.

142. Data source: Municipality of Canolo, Registry Office, historical series.

Lastly, *public works in this case served as an employment strategy* rather than merely a response to housing emergencies, echoing the practices of the 1950s Calabrian countryside, where the «big construction site» for infrastructure (roads, hydraulic forestry works, services) aimed «to create “alternative circuits” in the labor market»<sup>143</sup>, with the construction sector playing a prominent role.

In summary, the process, as reconstructed from archival records, challenges recurring descriptions of post-disaster new settlement phenomena as purely top-down processes, dominated solely by technical expertise and decisions made exclusively after dramatic events. Instead, it underscores that construction is not solely a settlement necessity but also a strategy for generating employment with high levels of widespread employability.

## 9.2 About Urban Planning Programs and Tools

The second aspect highlights the urban planning programs and tools employed, despite their partial implementation and experimental nature, both to address emergencies and due to the inherent limitations of a small municipality. In this case, the concurrent national launch of the INA-Casa public housing program in 1949 (Fanfani Plan), interventions promoted and financed by the *Cassa per il Mezzogiorno*, established in 1950, and urban planning guidelines introduced through special laws for floods and Calabria, turned the relocation of abandoned towns into an opportunity for centralized, state-led design. This was not directly connected to the urban planning reforms introduced by Law N. 1150 of 1942.

The Municipality of Canolo acted strategically to seize the opportunities provided by these national tools and programs. Through the Worker Employment Increment Plan-Worker Housing (*Piano di incremento dell'occupazione operaia-Case per lavoratori*), the community accessed economic resources and external technical expertise to begin constructing a new settlement on more geologically secure ground. The *Cassa per il Mezzogiorno* provided resources for nurseries, roads, and other infrastructure projects. These programs ensured both public works and employment opportunities for residents. The Canolo Nuovo master plan established the legal framework necessary to implement these interventions, utilizing expertise unavailable within the small municipal administration.

In summary, well-directed local efforts effectively leveraged national tools and programs to achieve local goals. However, it should be acknowledged that these opportunities to secure resources or develop stable skills were not fully utilized.

143. SORIERO 1985, p. 744.

### 9.3 About Organization and Urban Form

The third and final aspect concerns the organization and urban form of the houses, services, and open spaces in the new settlement.

The territorial layout of the new center features an urban-rural character, with open building layouts arranged on a gentle slope, in stark contrast to the compact, mountainous urban system of the historic settlement, which conformed to the steep terrain. A rich system of basic services – including a church, school, nursery, and communal ovens – was partially realized in dedicated constructions within a «healthy and hygienic environment»<sup>144</sup>. By contrast, in Old Canolo, for example, classrooms were cramped within the town hall and operated in shifts, with only one class («2 A») having its own dedicated classroom, «which belonged to the teacher»<sup>145</sup>. In the hamlets, lessons were held in «narrow and unhealthy huts, thatched huts»<sup>146</sup>. This spatial and functional design of New Canolo implicitly drew from national and international models, which, although delayed compared to Modern Movement proposals, also spread in post-war Italy. Central institutions (the Ministry of Public Works and the Civil Engineering Corps), with the involvement of professionals from Rome – albeit of Calabrian origin – played a key role in introducing elements of disruption and disconnection from the local context. The prevailing concept of the town appeared more suburban than agricultural, prioritizing forms and functions alien to the local culture of living. The design of open spaces, building typologies, and basic facilities, as well as the overall urban layout, continues to exhibit minimal dialogue with the local context, possibly due to the flat topography.

Similarly, the *residential building typologies* introduced aggregated models – row houses and multifamily complexes, freely arranged on grassy areas – distinctly different from the traditional houses of the historic town. Public housing projects in the early 1950s showcased diversity, typological innovation, and a sense of «urban “personality”»<sup>147</sup>, thanks in part to INA-Casa's specific manuals<sup>148</sup>. However, subsequent private construction, supported by public resources (Law N. 1177/1955), tended to replicate single row-house types aligned along roads, undermining the concept of a town shaped by open space. So, the INA-Casa innovations do not appear to have contaminated subsequent

144. MARANDO 1958, p. 117.

145. *Ivi*, p. 118.

146. *Ibidem*.

147. GABELLINI 2001, p. 99.

148. PIANO INCREMENTO OCCUPAZIONE OPERAIA. CASE PER LAVORATORI 1950; DI BIAGI 2001.

local construction. Also the Canolo Nuovo master plan, developed around the same time, ignored these innovations.

It should be noted that each unified design intervention (INA-Casa, second phase, land development plan of 1956-1958) proposed different, non-integrated forms of aggregation while maintaining a consistent two-story height. In summary, the urban design and early buildings of Canolo Nuovo represent a minor example of decontextualized modern architecture and urban planning that failed to influence the spatial development of a small town.

The history-based research conducted has brought forgotten documents to light, challenged common assumptions about the relocation of partially abandoned towns as non dramatic and entirely exogenous developments, and emphasized the efforts undertaken during the post-abandonment phase. The challenge for many twin towns remains to sustain these efforts beyond the initial drama.

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# LOST AND FOUND

Processes of abandonment of the architectural and urban heritage  
in inner areas. Causes, effects, and narratives (Italy, Albania, Romania)



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Archistor  
EXTRA



## Note sugli effetti dei disastri naturali sui piccoli centri in Calabria durante il XX secolo. Il caso di Ferruzzano

Nino Sulfaro (Università *Mediterranea* di Reggio Calabria)

*Sebbene i disastri naturali verificatisi in Calabria – terremoti, frane e alluvioni – nel corso del XX secolo siano stati numerosi e abbiano spesso causato danni molto gravi, identificare gli effetti sul patrimonio edilizio è piuttosto difficile. Una delle ragioni di questa mancanza di identificazione è che molti lavori di intervento post-disastro non sono stati completamente documentati.*

*Il presente saggio propone alcune note su questi aspetti, concentrandosi sul caso di Ferruzzano che, per la sequenza di eventi accaduti in questo piccolo centro nel corso del XX secolo, può essere considerato particolarmente interessante.*

*In questa prospettiva, si può infatti affermare come la storia sismica di Ferruzzano sia rilevante sia in termini di effetti sul patrimonio costruito, sia in termini di problematiche sociali, considerando il conseguente processo di “abbandono infinito” che ha caratterizzato tutto il XX secolo.*

## LOST AND FOUND

Processi di abbandono del patrimonio architettonico e urbano nelle aree interne. Cause, effetti, narrazioni (Italia, Albania Romania)

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# **Notes on the Effects of Natural Disasters on Small Towns and Villages in Calabria during the 20<sup>th</sup> Century. The Case of Ferruzzano**

Nino Sulfaro

Although the natural disasters which occurred in Calabria – earthquakes, landslides and floods – during the 20<sup>th</sup> century have been numerous and have often caused very serious damage, identifying the effects on the built heritage is quite difficult. One of the reasons for this lack of identification is that much post-disaster intervention work was not fully documented. Thus, there is very little literature on the subject and the archive documents have practically never been ordered and classified<sup>1</sup>. The 1908 earthquake is an exception where there is a significant number of studies and archive documentation available, relating, however, almost exclusively only to the two large centers affected by the disaster, Messina and Reggio Calabria<sup>2</sup>. The two cities, in fact, were the only ones to be rebuilt through a specific project and to have part of their monumental heritage reconstructed, restored, and repaired. The small towns and villages of the provinces, particularly in inner areas, however, were almost never the object of reconstruction plans: in most cases, relocation was preferred, abandoning the old settlements which, for safety reasons, should have been even demolished<sup>3</sup>. This rarely happened, and the old settlements were abandoned and destined to become ruins (fig. 1).

1. See MAREGGI in this volume, pp. 152-201.

2. See, above all, VALTIERI 2024.

3. See SULFARO in this volume, pp. 44-89.



Figure 1. Brancaleone Superiore, Reggio Calabria. Ruins of the old settlements abandoned during the 20<sup>th</sup> century due to hydrogeological disorder and never demolished (photo N. Sulfaro, 2015).



Figures 2-3. Canolo Vecchia, Reggio Calabria. Some patchy transformations show how the old small town has been partially inhabited over time (photos N. Sulfaro, 2022).

On the next page, figure 4. Ferruzzano, Reggio Calabria  
(ortophoto by L. Barazzetti 2022).



Some other small towns, however, continued to be partially inhabited for the entire century, and were the subject, over time, of patchy interventions of reconstruction, repair and demolition by the owners of those structures which, from time to time, due to further earthquakes or floods, were no longer safe (figs. 2-3).

The present essay seeks to develop these aspects, focusing on the case of Ferruzzano which, due to the sequence of events that occurred in this small town during the twentieth century, may be considered particularly interesting. It is a small town located on a hill, a few kilometers from the Ionic coast of the province of Reggio Calabria (fig. 4). We cannot define it a "ghost-town", as it is still inhabited and frequented by those who, in the past, moved to the coast but continue to have a second home there. In comparison to other abandoned small towns and villages in the same area, such as Brancaleone or Africo, and despite Ferruzzano suffering the same depopulation processes<sup>4</sup>, it apparently seems better preserved: there are not so many ruins or collapsed roofs, and many houses, while abandoned, retain everyday objects and furnishings belonging to a not-too-distant past (figs. 5-6). These traces tell us that the population in Ferruzzano still lived in the town until the 1990s, when funds were allocated for the creation of a new settlement closer to the coast<sup>5</sup>. The damage due to the last strong earthquake, in 1978<sup>6</sup>, had led the Regional Government to declare the town uninhabitable due to safety concerns and, consequently, the process of depopulation inevitably accelerated.

In this perspective, we can state that the seismic history of Ferruzzano is relevant both in terms of effects on built heritage and in terms of social issues, considering the consequent "never-ending abandonment" process, as anthropologist Vito Teti defined it, which characterized the entire 20<sup>th</sup> century<sup>7</sup>.

4. *Ibidem*.

5. See Legge Regionale 24 January 1997, n. 3 - Integrazione a modifiche alla legge regionale del 24/02/1979, n. 2, recante: "Disciplina degli interventi nelle zone della provincia di Reggio Calabria colpite dagli eventi sismici del marzo aprile 1978".

6. See BOTTARI *et al.* 1982.

7. See TETI 2008.



Figures 5-6. Ferruzzano, Reggio Calabria. Objects and furnishings belonging to a not-too-distant past (photos N. Sulfaro, 2022).

### *Earthquakes and abandonment in Ferruzzano*

According to the chronicles, the devastating earthquake of 5<sup>th</sup> February of 1783 had already caused the destruction of most of the town and provoked 35 victims out of 550 inhabitants<sup>8</sup>. The town was slowly rebuilt over time but, one century later, the 1894 earthquake again caused much damage. Despite the epicenter of this seismic event being far from Ferruzzano – on the Tyrrhenian side of the province of Reggio Calabria – the chronicles report the opening of cracks in many buildings and the widespread collapse of walls and roofs in the town<sup>9</sup>. However, it is, above all, the 320 earthquakes of varying intensity that occurred between 1894 and 1907 that strikingly demonstrate the seismic instability of the area in that period<sup>10</sup>.

This instability undoubtedly contributed to spreading the perception of the lack of safety in the area. However, we should mention how a heavy wave of depopulation due to economic issues had already started at the end of 19<sup>th</sup> century, when several hundred inhabitants moved to the United States of America to work on the construction of channels and railways in the area of Buffalo-Rochester<sup>11</sup>. In addition, the construction of a railway along the Calabrian Ionic coast in the same period began to attract people away from the hill to settle near the coast<sup>12</sup>.

On 23<sup>rd</sup> of October 1907 a catastrophic earthquake struck Ferruzzano, the epicenter of a seismic event, IX of the Mercalli scale for 15 seconds. The effects on the small town were devastating, with the collapse of many buildings, while in other settlements, the damage was less severe. Aid arrived very slowly due to weather conditions and the impossibility of reaching Ferruzzano by road. According to official data, 167 people died, of which 158 in Ferruzzano (approximately 8% of the town's population). The other 9 victims were from Sant'Ilario dello Ionio, Zopardo and Casalnuovo di Africo; there were also some 90 injured, of which 50 in Ferruzzano, 8 in Sant'Ilario, and 7 in Zopardo<sup>13</sup>.

8. SARCONI 1784.

9. ASRC, Prefettura, Atti del terremoto del 1894, b.1, fasc.83, Relazione sui danni causati dal terremoto avvenuto il 16 Novembre 1894 nel Comune di Ferruzzano, redatta dall'architetto G. Antico, Siderno 22 dicembre 1894. See also Riccò 1897.

10. See GUIDOBONI *et al.* 2018.

11. TETI 2008, p. 410.

12. See SULFARO in this volume, pp. 44-89.

13. ACS, Ministero dell'Interno, Direzione generale dell'amministrazione civile, Terremoti, el.4, b.22, fasc.25000.4.5 (1907-08), Terremoto 1907 Rapporti degli ispettori ed altri funzionari, Relazione del Comitato governativo di soccorso pei danneggiati dal terremoto 1907 nella provincia di Reggio Calabria, Roma 1908. ACS, Ministero dell'Interno, Direzione

We should underline that this earthquake was also the first natural disaster after the Unification of Italy, so it had a national resonance (figs. 7-8). The head of the Italian Government Giovanni Giolitti launched a National Committee to raise funds for the inhabitants, with the aim of recovering and sheltering the homeless, and collecting funds from public administrations and private individuals.

A first provisional encampment was set up in Saccuti, an area close to Ferruzzano, where the inhabitants were supposed to be temporarily relocated (fig. 9). Government inspectors proposed that the Committee consider the hypothesis of reconstructing the town in another place due to the great difficulties of rebuilding the town on the original site. By the end of 1907, nothing had yet been rebuilt. Funds were allocated for housing to shelter homeless families, in Saccuti, closer to Ferruzzano where, in the aftermath of the disaster, a provisional encampment had been established. Here, tents were transformed into brick houses.

As is well known, in 1908 another devastating earthquake occurred the area of the Strait of Messina. Its effects also included Ferruzzano where no repairs of the damage of the 1907 earthquake or reconstructions had yet been carried out<sup>14</sup>. There were no victims, but much new damage. After the earthquake of 1908, 350 out of 400 (87.5%) buildings had collapsed or had to be demolished; 25 buildings were seriously damaged and just another 25 had no serious damage<sup>15</sup>.

Many milder but still ruinous tremors occurred in the area in the following two years; in that period many inhabitants of Ferruzzano lived in shacks in the old town where the rubble was still in the place, while the wealthiest families begin to move to Brancaleone *Marina*, about fifteen kilometers from the town.

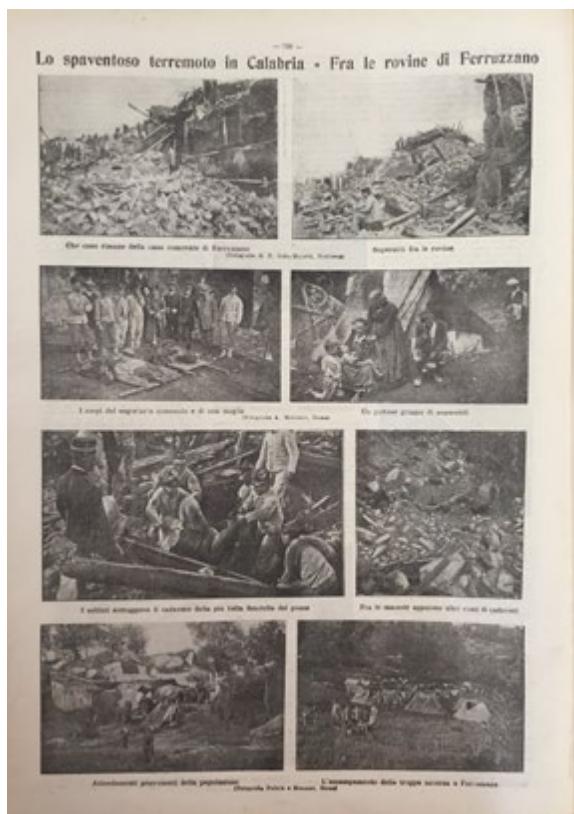
We should mention that Ferruzzano had already been included among the centers to be transferred with Law 9 July 1908 n. 445 (Provisions for Basilicata and Calabria)<sup>16</sup>; however, the small

generale dell'amministrazione civile, Terremoti, el.4, b.22, fasc.25000.4.5 (1907-08), Terremoto 1907 Rapporti degli ispettori ed altri funzionari, Prospetto degli edifici pubblici danneggiati dal terremoto del 23 ottobre 1907 e ammontare dei danni redatto dal Genio Civile, Reggio Calabria 15 January 1908; *ibidem*, *Prospetto delle case danneggiate dal terremoto del 23 ottobre 1907 in provincia di Reggio Calabria e lavori eseguiti*, Reggio Calabria 30 novembre 1907.

14. ASRC, Prefettura, serie I (Affari generali), inventario 24/I, Appendice, fascio 433, fasc.95, Corpo reale del Genio civile, "Elenchi dei proprietari di case danneggiate dal terremoto del 1907 nei diversi comuni del circondario di Gerace, i cui lavori di riparazione secondo le perizie redatte dal Genio civile di Reggio Calabria non furono iniziati od ultimati a causa del terremoto del 28 dicembre 1908", Reggio Calabria 25 April 1910.

15. BARATTA 1910.

16. See SULFARO 2024 in this volume, pp. 44-89.



Figures 7-8. The cover and a page of an Italian magazine of 10 November 1907 with a report on the earthquake of Ferruzzano (private collection of the author).



Figure 9. Ferruzzano, Reggio Calabria. The new town of Saccuti (photo N. Sulfaro, 2018).

town was never completely abandoned, and the decision to build a new town in another place was not taken for many years.

The heavy flood of 1951 caused extensive damage to the entire area, and Ferruzzano was included among the settlements to be transferred by the Ministerial Decree 19 May 1960, as provided with Law 26 November 1955 n. 1177 (Extraordinary Provisions for Calabria). In 1965, the architect Ciro Aversa drew up a plan for a new town which was to house 312 families in a 15-hectare area located downstream of the national road (SS 106) and crossing the Canallelo Torrent, near the railway yard<sup>17</sup>. During the construction of the new town, two floods in December 1972 and in January 1973 occurred in the Ferruzzano area, leading to increase the needs up to 450 new houses, as also the inhabitants of Saccuti had to be moved<sup>18</sup>.

Subsequently, while the new homes were still being built in 1973 and the families were only partially relocated, another settlement upstream from the national road was planned for a further 300 families. The construction of this new settlement was to continue until 1985 and would only be partially built<sup>19</sup> (figs 10-11).

Meanwhile, the earthquake of 11 March 1978 had caused much damage to the entire area. In Ferruzzano it provoked no victims but caused collapses and cracks to 70% of the buildings; it is also possible to hypothesize that the buildings suffered rather serious damage, given that the demolition of 23 buildings and the demolition of some unsafe walls were ordered<sup>20</sup>. Sixty out of the 920 inhabitants (6.6%) were homeless; the population was evacuated and transferred to hotels in Brancalone for 8 months<sup>21</sup>. After less than a year, they moved to an encampment near the coast. In the following decades, while a few people slowly came back to the houses which could be repaired, the 1978 earthquake constituted the last act of the process of abandonment of Ferruzzano.

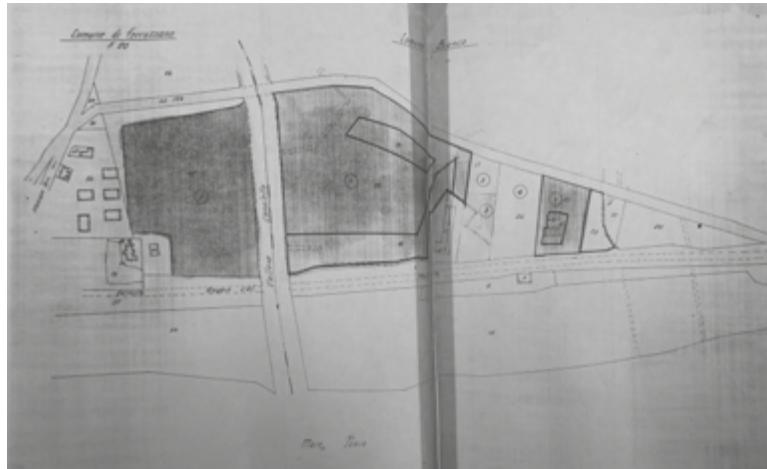
17. See DM 23 October 1965 n. 4724.

18. See the Technical-Economical Report by the Regional Committee for the Transfer and the Consolidation of Towns, Law 31 August 1973 n. 16.

19. See the documents included in PRG 1974 by the architect Sandro Donato (Variante al P.R. approvato con D.M. n. 4724 del 23.10.1968); ASRC, Consolidamenti e trasferimenti degli abitati, Trasferimento dell'abitato di Ferruzzano centro e della frazione Saccuti.

20. ASRC, Expertise 14<sup>th</sup> April 1978 n. 4891

21. ANSA, Notiziario italiano, 1978.03.12. Roma 1978.



On the left, figure 10. First plan for the relocation of Ferruzzano in an area upstream from the national road (ASRC, Consolidamenti e trasferimenti degli abitati, Trasferimento dell'abitato di Ferruzzano centro e della frazione Saccuti). Below, figure 11. Particular of the general plan of the relocaliont of Ferruzzano and Saccuti by the company Lodigiani in 1985 (*Concorso per la realizzazione del trasferimento dell'abitato di Ferruzzano Centro e Saccuti*) (ASRC, Consolidamenti e trasferimenti degli abitati, Trasferimento dell'abitato di Ferruzzano centro e della frazione Saccuti).



### *The reconnaissance of damage and post-earthquake interventions*

Apart from the intensity of the earthquakes which were often very violent, especially in the case of 1908, the quantity and severity of the damage caused was generally also attributed to the quality of the buildings in Calabria, almost always too poor and made with materials and construction techniques which were not suitable for resisting seismic events.

The seismologist Guido Alfani, one of the first scholars that studied the earthquake of Ferruzzano of 1907, noted that the severity of the damage in terms of victims and ruins could not be a criterion for determining the intensity of the seismic event<sup>22</sup>. On the one hand, he indicated the instability of the land in the entire area as the main cause; on the other hand, he underlined the "miserable" state of construction in Calabria, which only those who have been there know. According to Alfani, buildings had a problematic resistance in normal times, and they «cease to be houses and begin to be tombs, with the first shock of a slightly intense earthquake»<sup>23</sup>. At the same time, the famous seismologist Giuseppe Mercalli suggested to be prudent in inferring the intensity of the earthquake on the basis of the damage to buildings. Mercalli, in fact, underlined how the earthquake of 1907 had caused less damage a short distance from Ferruzzano, for example in Bruzzano and Sant'Ilario dello Ionio, where the general quality and conditions of buildings were not certainly better. Therefore, the heavy damage that occurred in 1907 to Ferruzzano must be attributed to some circumstances independent of the intensity of the earthquake, such as the nature of the land in that place<sup>24</sup>.

In this perspective, the studies carried on in that period by the engineer and geologist Venturino Sabatini represents probably the perfect synthesis of the two positions by Alfani and Mercalli. In 1908, he was tasked by the Italian Royal Geological Office with studying landslide phenomena in Calabria<sup>25</sup>; then, in 1909, he supported the Royal Commission in identifying the most suitable areas for the reconstruction of the towns hit by the earthquake in Messina and Reggio Calabria on 28th December 1908<sup>26</sup>.

Based on the observations made during the inspections with this Commission, and also before, for the Commission for the transfer of the inhabitants in 1907, Sabatini focused mainly on the

22. ALFANI 1907, pp. 5-6.

23. *Ivi*, p. 7 (translation by the author).

24. See MERCALLI 1909.

25. SABATINI 1908.

26. SABATINI 1909.

geological characteristics of the land, but also analyzed the conditions of the buildings, paying particular attention to the construction techniques used, as a factor that aggravated the effects of the earthquake. He underlined the role of the soil-building relationship, observing how in this part of Calabria foundations were a rarity in buildings: «the houses ordinarily rest on the ground, even if this is on a steep slope, or on vertical cliffs, therefore while upstream they have one or two floors, downstream they have three or four»<sup>27</sup>. He observed how often in Calabrian settlements the houses rested on the rock outcrops, like in Africo, or almost suspended over the void like on the crags, as in Roccaforte del Greco and in Roghudi. According to Sabatini, even without the help of an earthquake, in these cases the houses were destined to collapse with the slow crumbling of the underlying crags. In fact, these were often seen fractured underneath the buildings, as in Gerace, Roccaforte, and Ferruzzano<sup>28</sup>. As in other sites, including Bruzzano, and Brancaleone, where these formations are reduced to a mass of blocks *in situ* (fig. 12), the sandstone that forms the rocky outcrop where Ferruzzano is located shows a prevalent division according to vertical planes and therefore prisms, whose disintegration, according to Sabatini, was the main cause of the 1907 earthquake disaster (figs. 13-16). Among the lesions observed by the geologist, there were older and more recent ones; among the former, as shown in a drawing (fig. 17), there is the lesion that crossed the town, bordering the Croce and Belvedere districts and which locals dated back to the 1783 earthquake. Furthermore, along the crags, several prisms also show transversal fractures; some prisms can be seen completely detached from the remaining rock, and above one of them rests an abandoned house<sup>29</sup> (figs. 18-21). In the earthquake of 1907, a part of the town above the crags was destroyed, falling into a chasm following the rotation and subsequent collapse of the underlying prisms. At the same time, the internal fractures of the rock accentuated that movement and many other houses collapsed or were damaged<sup>30</sup>.

Apart from Sabatini's studies and the general data relating to the damage to buildings in percentage, there are no studies or archival documents relating to the individual damage recorded on buildings. The only post-earthquake pictures we have effectively describe the rubble scenario, but do not allow us to identify still existing buildings (fig. 22). The 1908 earthquake occurred when the rubble had not yet been moved away, and probably no interventions were made on buildings in terms of

27. *Ivi*, p. 83.

28. *Ivi*, p. 85.

29. SABATINI 1908, pp. 34-35.

30. *Ivi*, p. 36.



Figure 12. Brancaleone Superiore, Reggio Calabria (photo N. Sulfaro, 2015).





On the previous and on this page, figures 13-16. Ferruzzano, Reggio Calabria. The rocky outcrop where Ferruzzano is located shows a prevalent division according to vertical planes and prisms (photos N. Sulfaro, 2023).

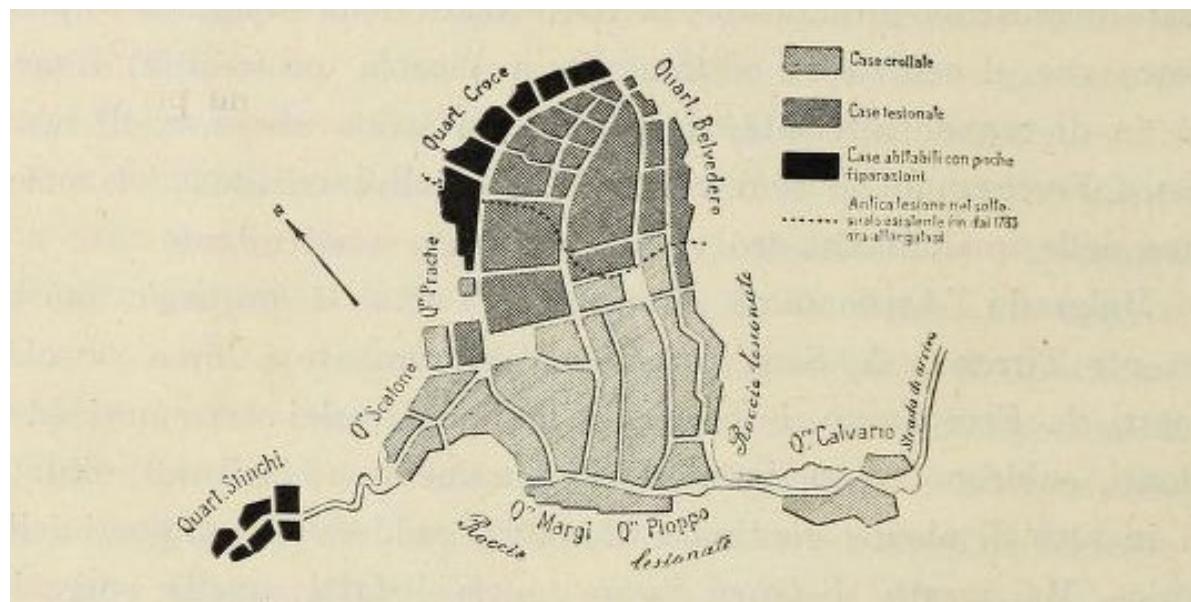


Figure 17. Map of Ferruzzano after the earthquake of 1907 with the indications of damage and collapses. It includes also the sketch of a lesion that crossed the town which locals dated back to the 1783 earthquake (SABATINI 1908, p. 34).



Figures 18-21. Ferruzzano, Reggio Calabria. One of prisms completely detached from the rock (photos N. Sulfaro, 2023).



Figure 22. Ferruzzano, Reggio Calabria. View of the ruins after the earthquake of 1907 from a magazine of the time (private collection of the author).

repairs or reconstructions. For this reason, even if it were possible to identify the possible damage and the related interventions, it would be impossible to distinguish those due to the earthquake of 1907 and those due to that of 1908. The documents drawn up after the 1908 earthquake by the Royal Commissions of which Sabatini was also a member, led the government to adopt legislative measures for planning and regulating the reconstruction and repair of damage.

In this perspective, on the basis of some laws which established the rules for the construction of new buildings and the restoration of the recoverable ones<sup>31</sup>, and on the basis of *in situ* observations, it is possible to recognize some interventions carried out after 1908. In particular, these laws prescribed that total or partial reconstructions on the site previously occupied by buildings which for any reason had been destroyed or demolished had to be carried out with all the regulations provided for new buildings. These regulations, obviously, led to a general approach which encouraged the demolition of damaged buildings and replacement with new ones.

31. Law 12 January 1909, n. 12; Law 13 July 1910, n. 466; Law 11 July 1913, n. 1039. These laws were merged in: Ministero dei Lavori pubblici, *Testo unico delle leggi emanate in conseguenza del terremoto del 28 dicembre 1908*. Approvato con R.D. 12 ottobre 1913, n. 1261. Roma 1913 (Royal Decree 12 October, n. 1261).



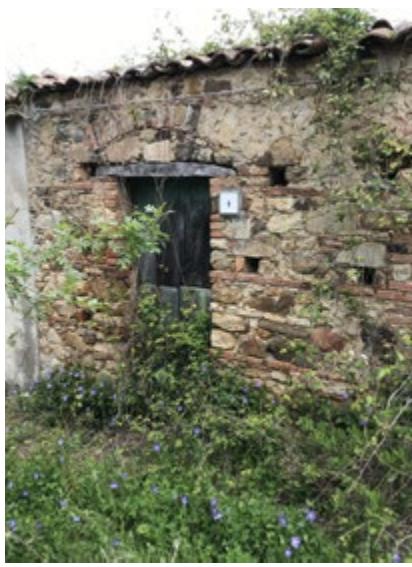
Figure 23. Ferruzzano, Reggio Calabria. The insertion of a portion built after the earthquake of 1908 on a pre-existing undamaged masonry (photo N. Sulfaro, 2022).

The severely damaged walls, uneven ones, and those which had widespread cracking, had to be demolished. Walls damaged more lightly, however, could be repaired by adding on each individual crack of new masonry well attached to the pre-existing, undamaged one<sup>32</sup> (fig. 23).

Reinforced masonry systems and the adoption of connections between the different structures of the buildings were prescribed; the use of vaults was prohibited, and the use of slabs was imposed, outlawing any overhanging construction, except balconies which had to comply with precise construction standards (figs. 24-25).

One of the most evident post 1908 earthquake reconstructions are the presence of new structures made with stone masonry interrupted by horizontal lines of bricks at a distance not more of 60 cm (figs. 26-27). Generally it is also possible to distinguish interventions attributable to the post-1908 earthquake phase, whose characteristics are directly referable to the prescriptions included in the laws issued in the aftermath of the disaster, such as demolition of damaged upper floors.

32. *Ivi*, Art. 219.



Figures 24-29. Ferruzzano,  
Reggio Calabria (photos N.  
Sulfaro, 2023).



Figures 30-31. Ferruzzano, Reggio Calabria (photos N. Sulfaro, 2023).

With the same approach it is often possible to recognize transformations of a distributional-functional nature, carried out not as a consequence of interventions aimed at increasing the safety of the buildings, but of a new socio-economic structure of the small towns in the various periods (figs. 28-29). In addition, based above all on the observation of the introduction of new materials and constructive techniques (e.g., reinforced concrete, new architectural finishings, etc.), it is possible to recognize interventions attributable to the post-World War II period and even more recent phases (figs. 30-31).



Figures 31-32. Ferruzzano, Reggio Calabria (photos N. Sulfaro, 2023).

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# LOST AND FOUND

Processes of abandonment of the architectural and urban heritage  
in inner areas. Causes, effects, and narratives (Italy, Albania, Romania)



Edited by Annunziata Maria Oteri



Archistor  
EXTRA

## Abbandono/riuso. Alcune riflessioni sul potenziale di riattivazione del patrimonio abbandonato nelle aree interne

Sonia Pistidda (Politecnico di Milano)

*Il movimento e lo spostamento sono sempre stati una caratteristica della condizione umana. Quando gli eventi naturali costringono all'abbandono, oltre alla distruzione del patrimonio costruito le persone sperimentano lo sradicamento e la perdita di identità. In Calabria, questi fenomeni sono evidenti nella costellazione di "doppi" nati negli ultimi decenni. Una volta trasferiti gli abitanti, i vecchi centri sono lasciati al loro destino di oblio e condanna alla marginalità. Quale possibile futuro per questi luoghi? Il contributo vuole riflettere sul potenziale di riattivazione del patrimonio abbandonato nelle aree interne. Partendo dalla premessa che è impossibile ripopolare tutte le aree marginali, discutere intorno al riuso o abbandono di questi luoghi implica riflettere su diversi livelli. Molti fattori influenzano quello che Mioni ha definito "l'indice di vitalità dei luoghi", e la loro considerazione è essenziale per comprendere le reali possibilità di rigenerazione. La costruzione di un modello metodologico di valutazione di questa potenzialità, che considera l'apporto di risorse endogene ed esogene, potrebbe essere uno strumento efficace per aiutare i professionisti e le amministrazioni ad indirizzare gli interventi e a orientare correttamente i finanziamenti.*

# LOST AND FOUND

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# Abandonment/Reuse. Some Reflections on the Reactivation Potentiality of Abandoned Heritage in Inner Areas

Sonia Pistidda

Abandonment, movement, and displacement are not recent topics, but they have always been a feature of the human condition. Historically shared by scholars of many disciplines, the effects and consequences of these phenomena also reflect a cyclical and dynamic process. Although it is difficult to establish precise geographical and temporal boundaries of the phenomenon, we can observe, as Scamardì noted, that «in the history path no place ever completely disappears [...] we can always feel a continuity, of use or even just of “memory”»<sup>1</sup>.

Despite the social, geographical, and economic diversity, the stories of abandonment scattered in our country are somewhat similar<sup>2</sup>. A “hostile” environment due to the territory’s specific orography and morphology, as well as connections and infrastructure, were among the reasons that contributed to decreeing the isolation of a place. However, the displacement can also be tied to the demographic decline, land abandonment, and obsolescence of the housing models. The destinies of these places tell that the system has weakened because of a traumatic event, triggering other consequent chain reactions. The lack of care and the abandonment of territorial protection make these contexts

1. SCAMARDÌ 2020, p. 23: «nel percorso della storia nessun luogo si annulla mai completamente [...] è sempre percepibile una continuità, sia essa d’uso o soltanto “memoriale”» (translation by the author).

2. TARPIANO 2016.

progressively more and more fragile. What is abandoned is not only a physical territory but a social and productive system that has stood on precise dynamics for centuries.

Sometimes, the movements are spontaneous; in other cases, the population, following the calamitous events, is “forced” to move with the promise of economic incentives, tax benefits, new lands to cultivate, more excellent stability, and better living conditions, often with social tensions and conflicts. In addition to the damage of destruction, there are those produced by eradication, by the loss of identity and the sense of belonging, with emotional consequences for the population, creating “double communities”<sup>3</sup>, generations of walkers, and “lost”<sup>4</sup>. Along with the reconstruction projects, substantial funding has often been at the origin of the political decisions to build the villages elsewhere, triggering what Varagnoli has called “reconstruction damage”<sup>5</sup>, generating a deep fracture in the narrative of these places.

Several factors affect where to build the new town, the “double”. Sometimes, the proximity between the old, abandoned centers and the new ones is linked to the desire to guarantee the continuity of agricultural and breeding activities. Particular attention is paid to accessibility and the immediate proximity of services and infrastructure, but in most cases, there are no relationships between the old and the new centers. In Calabria, the “double” in the constellation of names followed by “marina” is a clear sign of the desire not to cut the link with the past. The places where the inhabitants are moved are quickly chosen to respond to the emergency, generating a double often of poor architectural and urban quality, and the most recent uncontrolled construction has certainly not improved the situation<sup>6</sup>. The “imposed” transfer triggers a definitive break in the system, underlining choices marked by an ideological approach where the only option seems to be “elsewhere”. Once the inhabitants have moved, the old centers are left to their fate of inevitable oblivion and condemnation to marginality. The narrative on the abandonment of these places oscillates between nostalgic memory and indifference of those who want to keep alive rituals and traditions by using the protective shield of memory and those who want to forget a past of misery and poverty<sup>7</sup>. Are these inevitable and irreversible processes? Undoubtedly, the absence of protection policies for the old centers makes the degradation proceed inexorably, to reach, in many cases, a point of no return.

3. TETI 2008.

4. JEDŁOWSKI, CERULO 2023.

5. VARAGNOLI 2020.

6. MUSSARI 2020.

7. TARPINO 2012; TETI 2004; TETI 2017.

The factors contributing to the debate between complete abandonment or re-use are varied and do not always follow understandable logic. The good or bad state of conservation of a place is not a sufficient indicator to determine its fate. These processes are often the result of an interaction of historical, cultural, social, political, and economic factors that can vary significantly from one center to another and play an equally important role. It is a paradox how some of the most suggestive Italian villages indicated by tourist guides are the so-called “Ghost towns”: Poggiooreale Antica in Sicilia, Pentedattilo in Calabria, Civita di Bagnoregio near Viterbo or Craco in Basilicata, to mention some of the best-known examples. These are centers in decline and abandonment, with ghostly and silent atmospheres where the eternal charm of ruin attracts tourists and film sets. These forgotten places are reborn; they know a second life through tourism, and above all, thanks to their “abandoned” condition. On the other hand, even better preserved but less known, many different centers remain in oblivion with the total disinterest of visitors, investors, and administrations. These reflections make us consider that even the concept of “point of no return” is relative and can vary depending on the context, processes, and actors involved<sup>8</sup>.

What has happened in Calabria, particularly in the Locride area that the research has examined, reflects the general thoughts above, with a vast and complex spread of the phenomenon. Here, as in other realities, the intricate events that produced the transfers can never be attributed to a single reason and natural causes cannot be separated from urban and territorial policies.

Through a history-based lens that looks at the dynamics of the past to better read the present, the research has first tried to understand, from multidisciplinary perspectives, the natural and anthropic causes of these phenomena in a historical dimension. Secondly, it analyzed the effects of these processes on the physical territory and the landscape and, on a smaller scale, on the built heritage of these towns. Finally, the narratives have been reassembled, fundamental to understanding causes and effects on the social system and communities, to start some reflections about the “reactivation potentiality”.

#### *Abandonment or reuse? Some reflections on the “reactivation potentiality” of places*

The construction of a solid wealth of knowledge leads to questioning the possible destiny of these places. Here, without claiming to define it, some initial reflections are presented, which could open other research paths.

8. FIORE, D'ANDRIA 2019.

The dilemma moves in continuous oscillation between “the no longer places and the not yet places”: «The "no longer places", which, however, regret, disturb, remember, send messages and life signals, and those we can call the "not yet places," always unfinished, always waiting for definition»<sup>9</sup>.

A first reflection starts from the realistic admission that it is impossible to repopulate all the marginal areas. As Teti stated: «Places, however, are social and historical creations, born from an internal and external relationship, but places can also die, disappear, end»<sup>10</sup>. This also contemplates the honest acceptance that some places have reached the “point of no return” mentioned before, and the only possible scenario is the accompaniment to abandonment. Starting from the premise that every choice never has a neutral character, even the accompaniment to the abandonment presupposes a design: accepting that a place has now reached the end of life, a point of no return, and then consciously planning its end. But what about that place? An archaeological park for tourists? A ghost town that fascinates film sets? Also, these choices are not without consequences because the maintenance of all the abandoned sites in a state of ruin provides the local administration with significant investments in the long term. Questioning the reuse or abandonment of these places implies reflecting on different levels, considering the possible contribution of endogenous and exogenous resources, always with a look to the historical causes and effects produced on the territories and communities. This perspective represents the foundation of the history-based approach: try to understand the reasons for the abandonment and identify the tools able to rehabilitate not only the physical places but also their perception.

The reflection on the potentialities of places necessarily requires the satisfaction of some structural preconditions firstly, the evaluation of the territorial “milieu,” including the natural and built heritage, and the identification of the social capital.

Among the open issues that need to be addressed at a political level to make possible an effective repopulation is overcoming the economic, infrastructural, and social reasons that led to the abandonment: adequate services (education, health, transport, welfare), infrastructures (water, gas, and electricity), job creation, investments to cross the digital divide (also for promoting smart

9. TETI 2020, p. 79. «I “non più luoghi”, che tuttavia rimordono, perturbano, ricordano, mandano messaggi e segnali di vita, e quelli che possiamo chiamare i “non ancora luoghi”, sempre incompiuti, sempre in attesa di definizione» (translation by the author).

10. *Ivi*, p. 84. «I luoghi però sono delle creazioni sociali e storiche, nascono da un rapporto interno ed esterno ma i luoghi possono anche morire, scomparire, finire» (translation by the author).

working, telemedicine, etc.), innovation, and expertise. Over the last decade, many strategies and tools have been implemented at different levels, including the legislative one, to try to provide alternative scenarios to abandonment<sup>11</sup>. In all these instruments, it's curious that insufficient attention is paid to the built heritage as if the theme of repopulation can be separated from the substance of the historic buildings.

Many factors influence the decision between abandonment and reuse, and there are several pros and cons in the regeneration process. The positive aspects of a possible repopulation include economic regeneration (increasing local economic activities and job opportunities), preservation of built heritage and local traditions, the strength of local communities (sense of belonging, social cohesion, and so better quality of life), and efficient use of local resources. On the other hand, repopulation may also stress the local public services (schools, transport, health services), it could lead to the dangerous use of resources (especially in the absence of adequate sustainable development policies), and it could have a negative impact on the environment. Moreover, the mixing of new inhabitants and existing communities could give rise to social conflicts, mainly if not managed in a correct and inclusive manner. As highlighted in a study through some interviews with fourteen Majors of the inner areas<sup>12</sup>, one of the biggest problems at the policy level regards the fragile administrative structures, with little staff and no longer young who can hardly manage ordinary matters. Most of the "first citizens" place emphasis on the need to rebuild the communities starting from the local symbols and "cultural attractions", to create networks with other Municipalities (also putting services in common in an associated management perspective), guaranteeing minimum standards of services and focusing on shared development strategies.

Young people undoubtedly play a central role in these processes, as demonstrated by a survey published in 2023<sup>13</sup> which highlighted an incredible desire to "remain" actively in the territories, even in rather hostile ones such as the Calabria, to develop life projects in the inner areas.

11. To mention the most important ones: The National Strategy for Inner Areas (Strategia Nazionale per le aree interne, SNAI, 2014-2020 e 2021-2027), the FESR (Fondo Europeo di Sviluppo Regionale) program 2021-2027, the Law n. 145/2018 for the assignment of fundings to small villages, the Italian Law n.158/2017 (Legge Salva Borghi), the institution of the National Agricultural Lands Bank (law 154/2016), the urgent provisions for economic growth in South Italy (LD 91/2017), the "Decreto Sblocca Italia" until the more recent Recovery Plan, Next Generation EU and Piano Nazionale di Ripresa e Resilienza, PNRR. FORTE, MAFFEI, DE PAOLA 2020; DE ROSSI 2018; GIAMBRUNO *et al.* 2021.

12. LUCATELLI, MONACO 2018.

13. MEMBRETTI *et al.* 2023.

The definition of a “reactivation potentiality” or, as Mioni stated, “the vitality index”<sup>14</sup> of places is essential to understanding the real possibilities of regeneration. It could become an effective device to define criteria and action guidelines that can also be included in territorial governance.

The “reactivation potentiality” of a place can be defined as a kind of intrinsic ability of the system to self-regenerate through external triggers, a capability to promote repair processes starting from the cultural and human capital of the territory, taking new energies also from external resources. To identify this capability, a collection of representative indicators is necessary to set up a replicable method.

A first set of macro-indicators can be defined from thematic maps produced within the knowledge process, operating from general to particular. The elements to be “measured” concern accessibility and road infrastructure, the landscape, the average age of the inhabitants, the urban system and the quality of public spaces, the character of buildings, services of community interest, the presence of underground services (water, sewer, gas, electricity, fiber optics, etc.), the strategic territorial position in relation to the reference poles, but also the settlement pressure, the presence of established traditions, the ability of local actors to trigger processes. This first operation can provide a first screening of the intrinsic potentialities and criticalities of the site.

What is the contribution of built heritage in these transformations? In these processes, it must play an active role as an already available resource with great diversity and heterogeneity. The physical intervention on the buildings and places defines the basis for the new identity matrix. So, a second level of indicators, from a heritage-based perspective, concerns uses, availability of public areas and their conditions, open spaces, characters of the buildings (from material and structural point of view), and state of conservation. The construction of thematic readings oriented to the knowledge of the context, could support the local administration in elaborating Plans.

Indeed, the number of variables is enormous, and developing a device that can “measure” them is not easy, especially because some of those characteristics are latent and not recognized. Moreover, the construction and evaluation of these potentialities in different sectors (economic, social, environmental, etc.) require the contribution of other forms of knowledge and the deployment of multidisciplinary skills that must have a direction capable of synthesizing them.

The methodological construction of an assessment model of this potentiality could be an effective tool to help professionals and administrations target the interventions and correctly orient funding.

The knowledge process, as tested in the case study of Ferruzzano during the research, can represent a first step in constructing this heritage-based model. The uniqueness of the territories

14. MIONI, PEDRAZZINI 2005.

forces capillary site-specific work to implement an immersive activity in the places oriented to listen to them, to re-read this huge available capital in an innovative way, creating the proper interconnections.

From a methodological point of view, the construction of a solid baseline could orient the identification of “critical areas” and resources, promoting interventions in the areas with more potential, and it could effectively support future policies and target investments.

Some critical issues were highlighted during the work on the case study that can also be considered, more in general, as gradients of complexity. First, official censuses of uncultivated land and abandoned buildings are lacking, as is a mapping of socio-economic dynamics. However, the knowledge project is a dynamic process that continually requires insights and integrations, so implementable regional information systems are necessary to create a valid and constantly updated working tool.

The transfer determines an intense identity fracture, and whether the action goes in continuity or discontinuity with the past, one of the key points is to rekindle the interest in these places. These sites, which arose also morphologically to encourage community life and mutual help, still retain a character of solid uniqueness, strongly linked to the specificities of the territory, far from the homologous logics that today characterize the globalized contexts. However, the narrative of abandonment cannot be limited to the consideration that these settlements represent a heritage. Still, we must go further, overcoming the boundaries of the individual settlement and embracing broader contexts. As Loughlin Kealy observed:

«These reflections lead me to think that, when confronting the dominant narrative of abandonment, one needs to go beyond the boundaries of resistance, of protest, of the objectification of the surviving small-scale settlement as “heritage” to find a countervailing truth, one that is rooted in ecology, in the complex systems necessary for civilization to survive, and ultimately in the human spirit, in creativity, openness, and generosity. [...] In my view, the issue of regenerating abandoned settlements needs to come to that level of thinking: it needs not to be understood as a problem of small settlements but as a problem of achieving a better quality of life throughout a region or even more extensive space»<sup>15</sup>.

Even a possible repopulation must be framed in a broader sense, not only as a return to the places of origin by those who left but also as new arrivals, settlement of new communities, as a response to the latest contemporary concept of movement, also benefiting from the energies of the “remaining”

15. KEALY 2020, p. 206.

communities. We need to imagine new ways of living; as Teti stated, we need a “re-foundation of places”<sup>16</sup>.

This requires a systemic and multidisciplinary vision but also, as Della Torre observed, an idea of conservation as “protection of the co-evolutionary potential”<sup>17</sup>, aware that heritage and context are indissolubly linked and influence each other. Tourism certainly cannot be the only prevailing answer. The experiences conducted over the years have revealed an exploitation of these places without ultimately generating an effective rebirth. The tourism economy represents an essential resource with direct effects on the micro-economies, but it can be completely ineffective if not included in a systemic vision<sup>18</sup>. New “mixed” activities must be introduced, employment opportunities must be created, long-term, more pervasive, and constant interventions must be added to promote local identity by combining the permanent residence with other seasonal activities for an effective and lasting repopulation of these places.

A vital reflection concerns the use: the effects can be positive only if the uses prefigured effectively respond to the needs of the communities; if endogenous forces trigger them, and if they are the translation of the intrinsic potentialities of the places. The knowledge phase must, therefore, be enriched by the qualitative census of these potentialities. In fact, for the definition of any possible demand, it is necessary to cross-check non-traditional data, also from different sectors: for instance, families with situations of fragility reported to social services, elderly people alone, young farmers interested in new businesses, etc.

In addition to the tools for recovering the built heritage, socio-economic triggers are needed to repopulate an abandoned center. So, parallel to the capillary work on the built heritage, a valid help in identifying some “indicators of vitality” can come from the sharing of good practices of resistance, evaluating their success or failure, even with comparative approaches, and multidisciplinary discussion. The construction of a repository of good practices could represent a valuable tool from which Mayors and different stakeholders can draw inspiration. In fact, from north to south of the country, there are many experiences of reactivation, often developed with a bottom-up approach: Smart villages, Cooperative Communities, Eco-villages, art-based reactivations, inclusion of migrants, etc<sup>19</sup>.

16. TETI 2022.

17. DELLA TORRE 2020, p. 115.

18. MEINI 2018.

19. CACCIARI 2016; CONSIGLIO, RIITANO 2014; DE BLASIO, GIORGIONE, MORETTI 2018; MINERVINI 2016; MARTINELLI 2020.

The discussion with the resident population and local administrations can offer a significative framework about resources and criticalities of places. To collect these data, interviews, checklists, roundtables, focus groups or workshops with different stakeholders can be used. People and places are, in fact, closely intertwined: the recovery of the built heritage alone is not able to trigger reactivation, as well as social practices not context-based can take root. So, immersive work in the territories is necessary to understand criticalities and extract potentialities. But, at the same time, it is essential to accompany the processes to establish a practical mediation work<sup>20</sup>.

The approach can only be interdisciplinary and oriented to understanding effects and processes to imagine sustainable scenarios of abandonment accompanied, revitalization, or other. But to make operations sustainable, we also need to braid both "upstream" and "downstream" modes of intervention.

Research and academia can play an essential role in these dynamics, building knowledge, facilitating processes, and promoting dialogue at scientific, political, and social levels.

As Della Torre stated, the view to image a future for these degraded and obsolete places is to accept a "break" and work on it, designing new paths of co-evolution and not adaptation<sup>21</sup>.

### *Ferruzzano, a town. A case study*

The case of Ferruzzano and its "double," which is presented in this contribution, was chosen as a "pilot" project to assess more closely and on the urban scale, the effects of these processes on the built heritage and to try to draw some reflections on the possible reactivation potentiality.

The starting assumption, as Oteri has observed well, is that a different perspective is necessary, that tracing a history of abandonment looking at not only movements but also causes, processes, effects, and narratives, including the economic, productive, and social scenario:

«a significant paradigm shift in the usual way of looking at the territory: no longer as a frame within which things happen, much less as "production and aesthetic image" to crystallize and exhibit as a work of art in a museum, but as a product of a sedimentation of historical-economic and historical-cultural processes and also as a ground for social practices»<sup>22</sup>.

20. MONACO, TORTORELLA 2022.

21. DELLA TORRE 2020, p. 119. «La via per ipotizzare un futuro per i borghi obsoleti, disconosciuti e degradati sia quella di accettare una cesura e lavorare su di essa, pensando a percorsi nuovi di coevoluzione (non di adattamento!)».

22. BORTOLOTTI 2009; OTERI 2019, p. 175. «Ciò richiede un significativo cambio di paradigma nel modo consueto di guardare al territorio: non più come una cornice entro cui succedono delle cose, tantomeno come "produzione e immagine

Ferruzzano is one of the small villages in the province of Reggio Calabria and the Locride area that has suffered this destiny of abandonment and population transfer in its “double”. A constellation of dramatic events, repeated over time, marked its history, contributing to its decline in a general scenario of «long-lasting abandonment»<sup>23</sup>.

Some historians<sup>24</sup> date the first settlement to 925, following the first Saracen invasion that had destroyed the nearby village of Bruzzano; others attributed the foundation to 1475<sup>25</sup>. Originally built as a “casale”, a medieval term to indicate small groups of scattered houses, its history always remains closely linked to Bruzzano. Ferruzzano reached the status of an autonomous municipality (“University”, as they were called at that time) only in 1807. The proximity to the port of Capo Zefirio has made the area always vulnerable to continuous enemy attacks, alternating periods of prosperity to more difficult times of famine, frequent floods, and disease (especially in 1700), which led to a substantial decrease in population. The history of Ferruzzano was marked by numerous sequences of earthquakes in different times that helped to build the imagination of events not exceptional but inevitable: 1181, 1456, 1510, 1602, 1616, 1620, 1621, 1627, 1638, 1640, 1644, 1646 and 1659. However, the earthquake of 1783 was one of the most violent<sup>26</sup>. Earthquakes have, therefore, played a significant role in the history of these places, influencing, also in an anthropological key, the relationship with the sites, indelibly marking the landscape and the memory of people<sup>27</sup>. Its history, marked by recurrent dramatic natural events, tells us that every regeneration process needs, at first, a rehabilitation of its imaginary as a safe place.

In the following years, many attempts were made to revive the economy, but living and sanitary conditions remained precarious, even with the lack of essential services such as water. Only around the middle of 1900, the aqueduct, a connecting road, a school, a pharmacy, the Carabinieri barracks, and the first mill were built<sup>28</sup>.

The natural disasters that will mark the twentieth century will not help the country to recover;

estetica” da cristallizzare ed esibire come un’opera d’arte in un museo, ma come prodotto di una sedimentazione di processi storico-economici e storico-culturali e anche come terreno di pratiche sociali» (translation by the author).

23. TETI 2008, p. 405.

24. For a reconstruction of historical events, see: PERRONE 2007; LAGANÀ 2015; SPINELLA 1996.

25. GULLACE 1990.

26. SPINELLA 1996, p. 74.

27. TETI 2008. See the interesting anthropological reading of the phenomenon.

28. *Ivi*, p. 58.

indeed, they will inevitably lead it to decline. On October 23, 1907, Ferruzzano was at the epicenter of a new earthquake that caused disastrous effects on the town. A report by geologist Giuseppe Mercalli<sup>29</sup> states that the earthquake of 23 October 1907 devastated Ferruzzano, causing 158 deaths and bringing many houses to collapse. Indeed, the orographic and geological nature of the site contributed only to aggravate the consequences. Rodella Lucchini<sup>30</sup> noted the extent of the damage: «The destroyed village had 534 families, with more than 600 houses [...]: now from the list of the Genio there are 200 homes completely destroyed; 205 uninhabitable, the remaining to demolish immediately».

The engineer Vincenzo Sabatini of the Genio Civile in Reggio Calabria, following a visit to the places at that time, reported that one of the causes of the destruction was the precarious structural conditions of the buildings, often already damaged by the previous earthquakes and never restored. The houses were one or two floors (fig. 1), usually without foundations but resting directly on the sandstone. The mortar, composed of crumbled sandstone, was of poor quality, as well as the masonry. The only exception was represented by the wealthy houses, with sandstone blocks arranged in parallel faces<sup>31</sup> (fig. 2).

The first measures began to arrive, and in Law n. 445 of 9 July 1908<sup>32</sup>, Ferruzzano was inserted in the list of the settlements to transfer. However, since the decree of transfer, many decades passed before this materialized, and the population continued to live in unsafe and precarious homes.

The floods of 1951, 1953, and 1954 gave a new blow to the town. «L'Unità» of 18 February 1954<sup>33</sup> reported that numerous houses had fallen and even the electrical cabin, leaving the village without light.

The earthquake of 1978 gave the final killing blow to a dramatically marked territory. Ferruzzano is the most affected town. Collapses are widespread everywhere, and the quake caused deep cracks in the ground. The inhabitants were moved to some school buildings of the Riviera Ionica.

Numerous newspapers of the time recorded the damage suffered, also stressing the lack of prompt interventions for the transfer since 1908 and political responsibilities:

29. MERCALLI 1908.

30. RODELLA LUCCHINI 1910. «Il paese distrutto contava 534 famiglie, con più di 600 abitazioni [...]: ora dall'elenco del Genio sono 200 le abitazioni distrutte completamente; 205 le inabitabili, le rimanenti da atterrare immediatamente» (translation by the author).

31. SPINELLA 1996, p. 74.

32. L. 445/1908 – Legge 9 Luglio 1908, N. 445, *Sui provvedimenti per la basilicata e la calabria*, URL <https://www.normattiva.it/eli/id/1908/07/30/008U0445/ORIGINAL>, accessed 20 September 2023.

33. SA 1954.



Figure 1. Ferruzzano, Reggio Calabria, pilot project. One-storey building (unit 137) (photo S. Pistidda, 2023).



Figure 2. Ferruzzano, Reggio Calabria, pilot project. Morphological and material characteristics and state of conservation. A building made in mixed masonry with spread decay phenomena (unit 346) (photo by the research group, 2023).

«In Ferruzzano [...], the earthquake would have caused some houses to collapse. Seventy percent of the houses were damaged. Seventy people were homeless and placed in a hotel in the area. The quake also caused large cracks in the streets, especially on the provincial road that connects the municipality with the state road. The Municipality, of 920 inhabitants, at the foot of the eastern Aspromonte, was almost razed to the ground by the earthquake that in 1907 hit Calabria»<sup>34</sup>.

«The most significant damages are recorded in Ferruzzano [...] placed on decaying sandstone rocks: in old houses that have withstood the terrible earthquakes of 1908 (175 dead and about a hundred injured), 700-800 inhabitants live. [...] In the ancient center, the damage was significant: over 70 percent of the old houses, damaged by the floods of '51, '53, and '73, did not resist the violent earthquake; some of them collapsed, and the majority of them became uninhabitable as a result of the deep cracks suffered in the load-bearing structures and in the floors. [...]. The inhabitants of the collapsed or unsafe houses (about fifty) were housed in a hotel in the nearby town of Brancaleone. The story of this small town, broken up and cut by emigration, with a rural economy not even self-sufficient, is emblematic. Since 1908, a commission had decided the total relocation of the town because of the overall insecurity of the area; after the terrible floods of '51, '53, the danger of the area was confirmed and set, and subsequently realized, a first plot for the transfer of the flooded houses. For over ten years has been realized - albeit with old and outdated schemes - the master plan in the coastal area: in an area capable of housing a hundred has been paved with narrow streets and curves, today invaded by weeds: it has been arranged the creek, built a bridge to allow the transit to the station of Ferruzzano, were built sewage and water. The houses, however, have never been built, while the danger in Ferruzzano is always constant and serious; there are responsibilities that involve not only the offices of the Civil Engineers and the Region, but the same regional juntas so far succeeded»<sup>35</sup>.

34. LAGANÀ 1978. «A Ferruzzano [...] il sisma avrebbe causato il crollo di qualche abitazione. Il settanta per cento però delle case sono rimaste lesionate. Settanta persone sono rimaste senza tetto e sono state sistemate in un albergo della zona. La scossa ha provocato larghe crepe anche nelle strade, particolarmente sulla provinciale che collega il comune con la statale. Il Comune, di 920 abitanti, alle falde dell'Aspromonte orientale, fu quasi raso al suolo dal terremoto che nel 1907 colpì la Calabria» (translation by the author).

35. E.I. 1978. «I danni maggiori si registrano a Ferruzzano [...] appollaiato su rocce arenarie in disfacimento: in vecchie casupole che hanno resistito alle terribili scosse telluriche del terremoto del 1908 (175 morti ed un centinaio di feriti) vivono 700-800 abitanti. [...] Nell'antico centro, i danni sono stati rilevanti: oltre il 70 per cento delle vecchie case, danneggiate dalle alluvioni del '51, '53, '73, non ha resistito alla violenta scossa tellurica; qualcuna è crollata, la maggioranza di esse è diventata inhabitabile a seguito delle profonde lesioni riportate nelle strutture portanti e nei solai. [...] Gli abitanti delle case crollate o pericolanti (una cinquantina) sono stati alloggiati in un albergo del vicino comune di Brancaleone. La vicenda di questo piccolo comune, disgregato e falcidiato dalla emigrazione, con una economia rurale neppure autosufficiente, è emblematica. Fin dal 1908, una commissione di indagine aveva deciso il totale trasferimento dell'abitato per l'insicurezza complessiva della zona; dopo le tremende alluvioni del '51, '53 fu confermata la pericolosità della zona ed impostato, e successivamente realizzato, un primo lotto per il trasferimento delle case alluvionate. Da oltre dieci anni è stato realizzato - sia pure con schemi vecchi e superati - il piano regolatore nella zona costiera: in un'area capace di ospitare un centinaio di alloggi sono state pavimentate stradine strette e curve, oggi invase dalle erbacce: è stato sistemato il torrente, costruito un ponte per consentire il transito verso la stazione di Ferruzzano, sono state realizzate le reti fognanti e idriche. Le case, però, non sono mai state costruite, mentre il pericolo a Ferruzzano è sempre costante e grave; ci sono responsabilità

The news of April 1978 reported that the state of public calamity had been requested and that Ferruzzano was almost entirely evacuated. From this moment, the center started to become a ghost town, and, almost paradoxically, the abandonment has preserved these places from destruction.

The historical reconstruction of the main events of Ferruzzano helped a lot to complete the knowledge work developed on-site, allowing us to understand the effects of these moments on the substance of places.

#### *Heritage-based perspective for the relaunch of historic centers. A methodology*

«There are places in Calabria that continue to live despite their abandonment. For this to happen, someone must remember them, know how to re-look them, giving them a new sense»<sup>36</sup>.

The research methodology was implemented into two different levels. The first included an initial *history-based approach* aimed at reconstructing the events that have affected the transfers to understand better the causes, dynamics, and effects of these processes<sup>37</sup>. This part has also linked some determining parameters, such as the character of settlements or cyclical phenomena of abandonment and repopulation. The material collected in the various archives, explained in detail in the documentary appendix<sup>38</sup>, has also allowed the comparison of different narratives concerning abandonment. The stories handed down from the population's direct experiences, the state institutions' perspective, and the press highlight how these events were perceived from different points of view.

The interweaving of the various narratives allowed us to read the phenomena from a multiple perspective. The deliberately multidisciplinary composition of the working group and the comparison with the international panorama provided an additional interpretative key, enriching the readings with multiple looks<sup>39</sup>.

The second level of investigation wanted to bring the built heritage back to the center, according

che coinvolgono non soltanto gli uffici del Genio Civile e della Regione, ma le stesse giunte regionali fin qui succedutesi» (translation by the author).

36. TETI 2008, p. 413. «Esistono luoghi della Calabria che continuano a vivere anche a dispetto del loro abbandono. Perché ciò avvenga occorre che qualcuno li ricordi, li sappia ri-guardare, conferendo loro un nuovo senso» (translation by the author).

37. See SULFARO, pp. 44-89, and MAREGGI, ROMBOLÀ, pp. 126-149, in this volume.

38. See SCAGLIA, VALIANTE in this volume, pp. 280-323.

39. See SANSA, pp. 90-105, and PETRILLO, pp. 354-373, in this volume.

to a *heritage-based approach*, through a cognitive deepening on the pilot case of Ferruzzano. The goal is to read the effects of such processes directly on the "substance", the built heritage. The ruins of abandoned houses, what remains of past lives and stories, have been investigated, looking for the links between events, causes that have produced them, and tangible effects that still resist today.

Ferruzzano has been "re-watched", with a look to the past and a projection to the future, to understand if this stratified palimpsest can still represent an available resource (fig. 3).

Referring to the sequence of historical events outlined above, the architectural layout belongs to the reconstruction following the 1908 earthquake that destroyed the village. Placed on a hill from which it enjoys a privileged panorama between the Aspromonte mountains and the sea, surrounded by the countryside, its urban layout follows the irregular terrain morphology and the differences in altitude, using the rock as a support (fig. 4).

The Via Regina Margherita and two smaller parallel streets represent the axes around which the village is built, intersecting perpendicularly with other smaller streets to connect all parts of the town. In front of the church stands the unique square. The local historians, also referring to oral traditions, describe a city with single-family buildings juxtaposed with each other, mainly with a ground floor and a basement used as a warehouse, woodshed, or stable. The basement, often carved into the rock, was called "*catoju*" and used to store food<sup>40</sup>.

The buildings are in stone and lime mortar; the roof was made with clay tiles called "*ciaramidi*" from the local furnaces. «In the roof of the kitchen room, on the perpendicular of the hearth, a special sliding tile was installed, with a small central hole, to allow handling from the ground by a stick, called "*furcuni*". This system was called "*fundicu*". By sliding the tile upwards [...], a window of about 30x20 cm was created that allowed the smoke to escape»<sup>41</sup>.

The interiors were simple: one room for the poorest houses and two or three rooms for the wealthiest families. The most prominent houses had a wood oven for bread to serve more families. Some buildings had cisterns for collecting rainwater. Running water arrived only in the forties but bringing it to all homes would have required much work, so many continued to remain without.

Several buildings played collective roles: a kindergarten, founded by Zanotti Bianco in 1925 and

40. PERRONE 2017, p. 11.

41. *Ivi*, p. 11-16. «Nel tetto del locale destinato a cucina, sulla perpendicolare del focolare, veniva installata una speciale tegola scorrevole, con un piccolo foro centrale, per consentire la manovra da terra mediante un paletto, chiamato "*furcuni*". Questo apparato si chiamava "*fundicu*". Facendo scorrere la tegola verso l'alto [...], si creava una finestra di circa 30x20 cm che permetteva la fuoriuscita del fumo» (translation by the author).



Figure 3. Ferruzzano, Reggio Calabria, pilot project. The complex palimpsest of the buildings (photo by the research group, 2023).



Figure 4. Ferruzzano, Reggio Calabria, pilot project. Three floors building resting on a rocky wall (unit 193) (photo S. Pistidda, 2023).

located in the center of the village, with large classrooms and a garden, elementary schools spread throughout the town, a post office, the Church, entirely destroyed by the earthquake of 1783, then by that of 1908, and then replaced with a temporary wooden structure, and the *Casa della Madonna* that was used for theatre performances.

Ferruzzano, which has undergone organic development over time to delineate an evident urban morphology, is almost totally abandoned today (figs. 5-8). Only a few families continue to live there, but the “spirit of the place” permeates the houses and streets. The abandonment of agricultural activities has triggered a rapid degradation of the natural landscape, and the end of care has produced the inevitable decay of the buildings. The town today has many buildings reduced to the state of ruins, deprived of roofs, clear evidence of a nature that takes back possession of architecture. The degradation of the built heritage is in continuous evolution: the loss of the roof favors infiltration phenomena, putting in crisis the supporting structures and generating structural collapses, sometimes irreversible. However, the resistance of the built heritage highlights the places' adaptive ability (figs. 9-11).

The working methodology<sup>42</sup> has focused on the deep knowledge of the historical settlement as a complex system because of the multiple physical and use transformations that occurred over time. The historical information collected in the first phase has been intertwined with the reading of the current state, providing valid support to some questions that emerged from visual observation. The perimeter of the investigation considered factors such as accessibility, conservation status, and representativeness of the sample examined. A quick census sheet has been specially developed for the data collection, considering the results from the first surveys and historical information collected. The sheet is divided into several levels, proceeding from the general to the particular, exploring the fabric in all its components: fronts, horizontal and internal structures, interior spaces, and open spaces. For each of these components, the materials, the construction techniques, the level of preservation, and the degree of transformation suffered over time are recorded. The collected data were transferred to a georeferenced database for the reasoned elaboration of specific thematic maps. The GIS platform (Geographic Information System) allows the development of different themes depending on particular needs and purposes. For example, by cross-referencing the information collected, some topics have been identified that could have an even more generalized knowledge value. Topics such as accessibility, use (both current and historical), morphology of the building and

42. For a complete analysis of the methodological structure of the research, see SCAGLIA, VALIANTE in this volume, pp. 280-323.



Figure 5. Ferruzzano, Reggio Calabria, pilot project. Addition of external bathroom (unit 324) (photo S. Pistidda, 2023).



Figure 6. Ferruzzano, Reggio Calabria, pilot project. Elevations and additions (unit 305) (photo by the research group, 2023).



Figure 7. Ferruzzano, Reggio Calabria, pilot project. Morphological and material characteristics, decorative elements of the fronts (unit 147) (photo by the research group, 2023).

On the next page, figure 8. Ferruzzano, Reggio Calabria, pilot project. Characteristics elements, a votive shrine (unit 310) (photo by the research group, 2023).



level of transformation suffered, general state of conservation, safety measures, and characteristics and potential of open spaces already allow some synthesis reflections (figs. 12-14). For example, it is possible to identify the areas with a priority of intervention, those best preserved and thus more easily recoverable, and those less transformed and therefore more responsive to the ancient urban structure. These analyses could also identify the areas appropriate to host pilot interventions and even those that could be re-naturalized because they have reached a point of no return.

The study's goal was to test, through the pilot case of Ferruzzano, the replicability of a method of investigation and its adaptability to other contexts with similar characteristics. Extending this type of investigation to other realities could create a valid database to support preliminary studies and design reflections on the possible future of these places (not necessarily of revitalization) but also a reasonable basis for the risk assessment of some territories from a mitigation perspective.

The municipal authorities, the provinces, and the region could benefit from these starting data within decision-making processes and, above all, to decide where to effectively target new funding, as happened recently with the PNRR, National Recovery and Resilience Plan. These kinds of analyses are undoubtedly necessary to build the starting point of the reflections, but they are not surely enough. Good policies, dialogue and network between the administrators, involvement of the communities, a careful listening of the territory to map associations, good practices, and new energies such as the young generation are fundamental to creating new narratives and effectively supporting the "capability to stay"<sup>43</sup>.

43. MEMBRETTI *et al.* 2023, p. 83.



Figure 9. Ferruzzano, Reggio Calabria, pilot project. Building in ruins without a roof (unit 310) (photo S. Pistidda, 2023).



Figure 10. Ferruzzano, Reggio Calabria, pilot project. Provisional works after the earthquake (unit 175) (photo S. Pistidda, 2023).



Figure 11. Ferruzzano, Reggio Calabria, pilot project. Provisional works after the earthquake (unit 175) (photo S. Pistidda, 2023).



Figure 12. Ferruzzano, Reggio Calabria, pilot project. A thematic map of the accessibility and uses (actual and historical) (elaboration by M. Scaglia and C. Valiante).



Figure 13. Ferruzzano, Reggio Calabria, pilot project. A thematic reading of the building's morphology and level of transformation (additions and overlapping) (elaboration by M. Scaglia and C. Valiante).



Figure 14. Ferruzzano, Reggio Calabria, pilot project. A thematic reading of the general state of conservation of the built heritage (elaboration by M. Scaglia and C. Valiante).

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## TOOLS

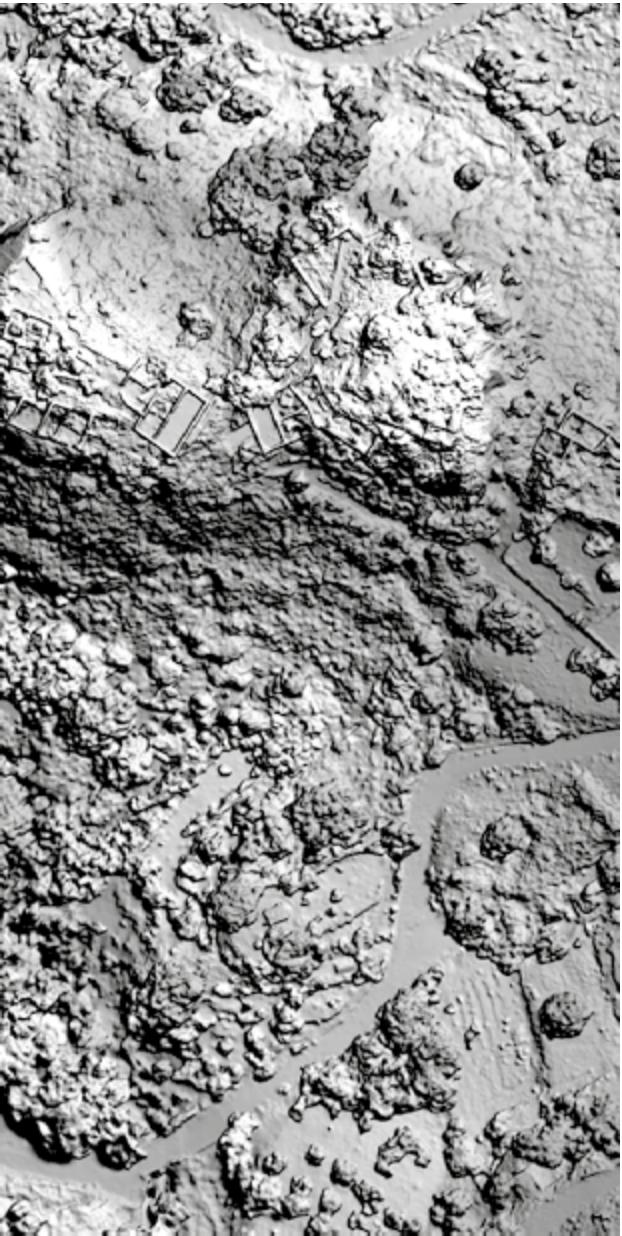


# LOST AND FOUND

Processes of abandonment of the architectural and urban heritage  
in inner areas. Causes, effects, and narratives (Italy, Albania, Romania)



Edited by Annunziata Maria Oteri



Archistor  
EXTRA

## Mappatura da drone in aree interne. Potenzialità e limiti

Luigi Barazzetti (Politecnico di Milano)

*Una documentazione metrica precisa e completa degli insediamenti in aree interne presenta sfide uniche per via delle specifiche caratteristiche e delle variabilità che tali aree presentano. Se è vero che una raccolta digitale completa richiede l'uso di vari strumenti, non esclusivamente limitati alla mappatura in situ ma che includa anche l'integrazione delle risorse cartografiche esistenti, uno strumento relativamente nuovo per acquisire e processare immagini con tecniche fotogrammetriche è il drone. Il drone si è rivelato di particolare utilità in quei progetti o studi tra una mappatura a scala territoriale e la documentazione del singolo edificio. Questo articolo riguarda gli aspetti sia normativi che operativi relativi all'uso del drone per catturare immagini e processarle con tecniche fotogrammetriche, in particolare nel caso di piccoli insediamenti in aree interne, a supporto della creazione di archivi digitali, con particolare attenzione al contesto italiano nell'ambito di una ricerca sulle aree interne della Calabria meridionale. L'articolo discute inoltre il dialogo necessario tra il pilota, che qui si intende anche un esperto di fotogrammetria, con gli altri specialisti che utilizzeranno i dati raccolti e processati; ciò anche nell'intenzione di mettere in luce limiti e sfide che questo strumento possiede anche sul piano tecnico. Se confrontato con mappature cartografiche più tradizionali, sia che interessino un progetto a scala territoriale o il restauro di un edificio storico, la mappatura delle aree interne con l'uso del drone occupa una sorta di livello intermedio in cui manca ancora di un flusso di lavoro ben definito.*

# LOST AND FOUND

Processi di abbandono del patrimonio architettonico e urbano nelle aree interne. Cause, effetti, narrazioni (Italia, Albania Romania)

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# Drone Mapping in Inner Areas: Strengths and Limitations

Luigi Barazzetti

In the last ten years, drones have had a significant impact on 3D digital documentation projects at environmental and local levels, including the digital reconstruction of individual buildings. Drones have established a new level of detail and intermediate metric scales between aerial and terrestrial (close-range) photogrammetric applications. This manuscript focuses primarily on the use of drones for documenting architectural heritage within inner areas, examining single buildings, and the digital reconstruction of entire urban spaces. Notably, a strong interplay exists between images or other data collected by drones and the subsequent photogrammetric processing, which also extends from basic visual inspection to advanced remote sensing applications.

The metric processing of drone-captured images relies on photogrammetry, a field that has seen development and experimentation spanning several decades. More recently, the combined use of photogrammetric approaches and methods from the computer vision community has provided advancements in automated processing solutions<sup>1</sup>. Concurrently, drone technology has progressed rapidly, allowing for the integration of cartographic mapping and documentation at the territorial level and at the level of individual buildings<sup>2</sup>.

1. GRANSHAW, FRASER 2015.

2. PEPE, ALFIO, COSTANTINO 2022.

It is important to note that the acquisition of images from airplanes and subsequent photogrammetric processing remains the base of modern cartographic mapping. This approach provides essential outputs such as digital orthophotos, point clouds, digital elevation models, and spatial databases, among others. However, two critical factors come into play when using aerial photogrammetry products: the level of detail, which typically aligns with cartographic requirements, and the acquisition date of the images. This means that recent aerial imagery may not always be available for the area under consideration, which poses challenges when aiming to represent current conditions. Nevertheless, past imagery can be invaluable for understanding changes in specific areas.

Terrestrial images captured with consumer-grade cameras enable specialists to acquire high-resolution imagery, which can subsequently be processed using photogrammetric methods to generate various 3D deliverables. Typically, these images offer higher resolution compared to those obtained from airplanes. Nonetheless, challenges persist, especially when capturing tall vertical surfaces or inaccessible areas. In addition, certain parts of buildings often remain out of reach.

An intermediate level was achieved using images captured from helicopters, albeit at a higher cost and with several limitations, particularly in urban settings. Drones bridge this intermediate level, enabling users to capture fine details that typically require direct inspection with safety measures in place to prevent falls. This applies to scenarios involving work at heights, necessitating specialized operator training and the installation of safety equipment such as lifelines or scaffolding.

Drones are not confined to single buildings; they can survey relatively large areas, elevating the level of detail to a mapping scale surpassing traditional cartographic products from airplanes. Although the overall coverage area may be smaller than aerial acquisitions, drones offer the flexibility of operating at low flying heights. This makes drone-based photogrammetry a potent multi-scale 3D reconstruction method, capable of achieving resolutions ranging from millimeters to centimeters. For these reasons, drones prove immensely valuable for mapping applications in inner areas, especially those characterized by irregular topography and diverse documentation requirements.

This contribution primarily discusses drone-based metric documentation in inner areas, while acknowledging the potential utility of drones in various other applications within this context. Effective collaboration between a photogrammetry specialist and other project stakeholders, such as architects, engineers, conservators, geologists, and archaeologists, becomes indispensable for ensuring accurate plan acquisition and processing that align with the project's objectives.

Numerous drones are available on the commercial market today, with prices varying based on several parameters. Some drones can be programmed to follow predefined flight plans,

capturing images with the required overlap for photogrammetric processing. Drones designed for photogrammetry are equipped with navigation sensors (e.g., GNSS) and digital image acquisition sensors, which extend beyond traditional RGB cameras. Some drones even feature thermal or multispectral cameras, making them versatile tools for remote sensing.

Operating drones in the Italian context necessitates a thorough understanding of European and Italian drone regulations. Pilots must meet specific requirements, including certifications and insurance, and adhere to designated operating zones and restrictions. Consulting the maps available on d-flight (fig. 1) is crucial before each flight. Additionally, comparing this map with the Italian map of inner areas may prove insightful, though it would require access to GIS files for direct comparison, as well as consideration of different feature layers.

In summary, the following parameters must be carefully considered before planning, executing, and processing a photogrammetric acquisition using drones:

- Legislative considerations: comply with EU Regulations 2019/947 and 2019/945 for drone operations in Europe. In the Italian context, adhere to the UAS-IT Regulation published by ENAC<sup>3</sup>;
- Operational factors: ensure the capability to conduct manual or automated flights with suitable geometry for photogrammetric processing and perform the necessary operations to generate photogrammetric deliverables with metric integrity and sufficient detail. This may involve ground surveying operations, such as setting up and measuring ground control points.

## *1. Drone operation and photogrammetric processing, some considerations*

### *1.1. Photogrammetric processing of drone images*

Readers may wonder why we introduce photogrammetric processing before discussing flight planning. The reason is straightforward: images must possess suitable spatial geometry to extract 3D information. Image geometry also plays a pivotal role in achieving specific metric precision. In the context of a typical aerial photogrammetric project, images depict a geometry structured in multiple strips, featuring longitudinal and transversal overlaps of at least 60% and 20%, respectively. The author often prefers to increase both values, for instance, to 80% and 60%.

3. UAS-IT Regulation. Edition 1, 4 January 2021. <https://www.enac.gov.it/la-normativa/normativa-enac/regolamenti/regolamenti-ad-hoc/regolamento-uas-it> (last accessed December 2023).

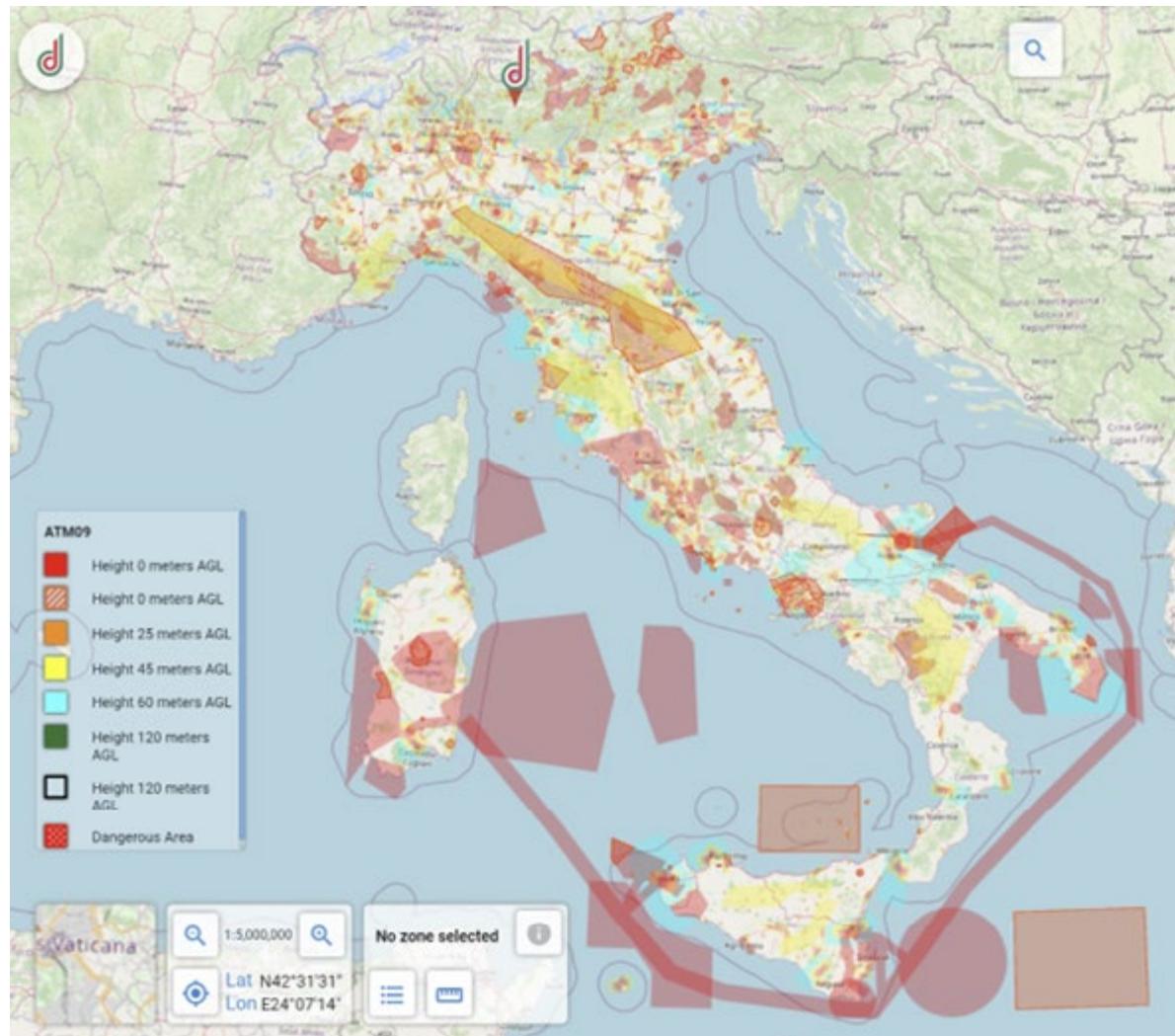


Figure 1. Maps showing flight limitations for drones, available on d-flight; [https://www.d-flight.it/new\\_portal/](https://www.d-flight.it/new_portal/) (accessed 14 March 2024).

Another essential aspect pertains to camera calibration, specifically the interior orientation parameters (principal distance, principal point position) and distortion coefficients typically based on the Brown's model<sup>4</sup>. It is highly advisable to utilize a precalibrated camera, even though many users today overlook this fundamental step, which can result in potential errors in the photogrammetric reconstruction<sup>5</sup> (fig. 2).

A photogrammetric block designed for camera calibration should consist of convergent images with roll variations ( $\pm 90^\circ$ ), variable camera-object distances, and a suitable configuration around the object. The recommendation is always to calibrate the camera with a dedicated flight and check the statistics (precision of computed parameters and their correlations). If the calibration project yields satisfactory results, the calibration parameters can be employed as constant values in traditional 3D modeling projects with drones.

Based on the author's experience, individuals lacking a specific background in photogrammetry often estimate interior orientation parameters and calibration coefficients during the processing of images for 3D reconstruction, typically starting with initial values stored in a software database or even proceeding without any initial approximations. In cases involving a non-precalibrated camera, it is advisable to incorporate convergent images with variable camera-object distances because calibration based solely on near-nadir aerial photographs may not always be reliable. Regardless of the situation, the general recommendation is always to perform camera calibration beforehand through a dedicated calibration flight and subsequently utilize the parameters in the 3D reconstruction project.

Photogrammetric processing typically follows a well-established workflow, which typically encompasses the following stages: image matching, image orientation, point cloud and mesh generation, texture mapping, and orthophoto production. The author does not intend to delve into the details of these steps within this contribution. Interested readers are directed to photogrammetric textbooks for a comprehensive understanding. However, the availability of numerous commercial and open-source software tools capable of automating most phases of the photogrammetric pipeline is noteworthy. This automation has become increasingly prevalent in the last 10 years, contributing to the widespread use of photogrammetry. Nevertheless, this has also led to instances where individuals lacking adequate expertise have generated incomplete reconstructions lacking metric integrity.

4. RONCELLA, FORLANI, 2021.

5. *Ibidem*.

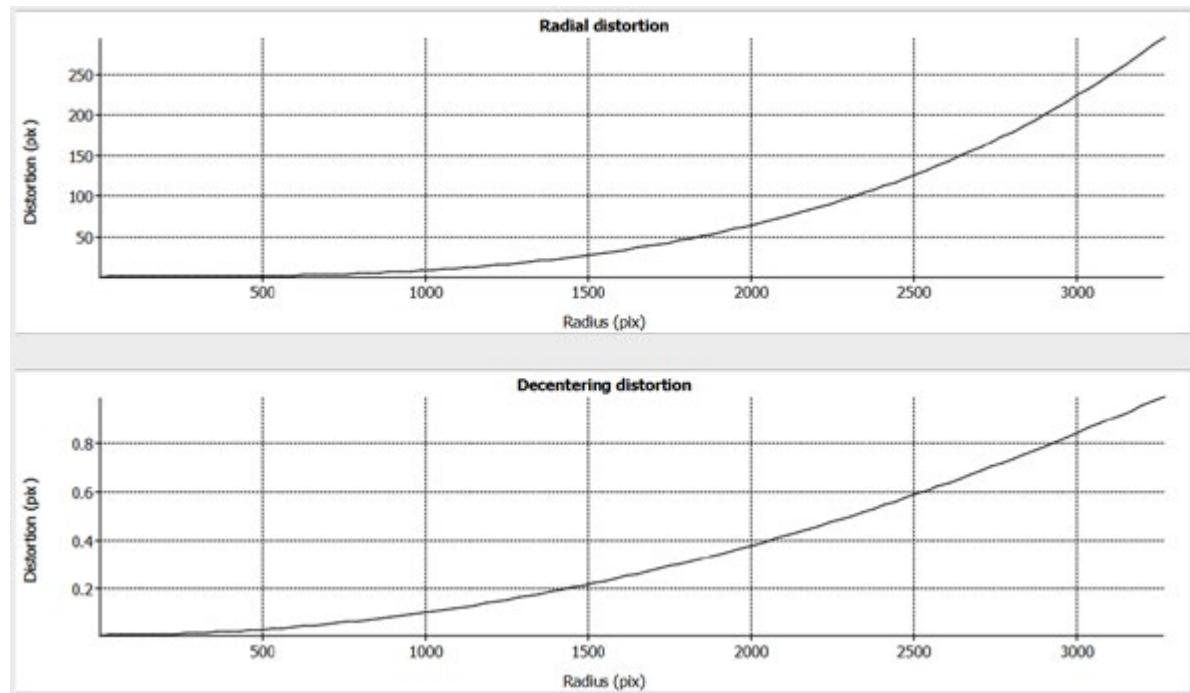


Figure 2. Radial and decentering distortion curves after a calibration project. The drone is a Mavic 3 Enterprise (elaboration by L. Barazzetti).

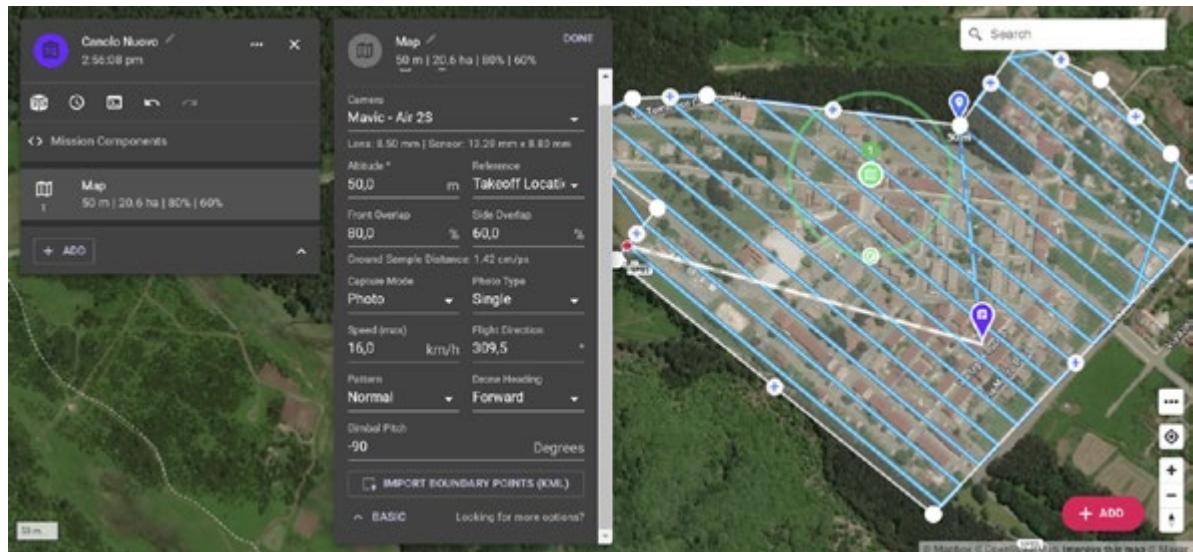


Figure 3. Example of a "traditional" photogrammetric flight structured in several parallel strips planned before reaching the site (photo and elaboration by L. Barazzetti 2023).

## 1.2. Flight planning and image acquisition

One of the primary advantages of drone technology and photogrammetry is the ability to automate the data acquisition phase (fig. 3). While not all drone-based photogrammetric projects can make use of automated flight planning options, applications requiring traditional aerial orthophotos or more complex geometries can benefit from these options to expedite data collection and establish a more consistent image block structure with predefined overlap, as well as convergent images.

In highly complex geometries, an approximate 3D model of the object can be employed to create a comprehensive 3D flight plan, incorporating convergent images at various heights. Pilots must pay attention to obstacles during on-site work. A fully manual flight remains a valid choice for drones lacking automatic flight capabilities and areas characterized by intricate geometries and obstacles.

A crucial parameter for planning drone acquisitions is the Ground Sampling Distance (GSD), which corresponds to the projection of the image pixel onto the object. In simple terms, a camera with a

pixel size of  $p \times p \text{ mm}^2$  will capture an area of  $P \times P \text{ mm}^2$  on the object, dependent on factors such as the camera-object distance and the camera's focal length.

Typical values for drone projects range from a few millimeters to several centimeters. Importantly, the GSD is inconsistent throughout the project due to variations in the camera-object distance caused by the object's geometry. Utilizing drones with "terrain follow" capabilities can be helpful in maintaining a more consistent GSD in areas with significant changes in elevation. However, pilots must also consider the Digital Surface Model (DSM) used to plan image acquisition. When using DSMs downloaded from the internet, the resolution is often limited (several meters), potentially affecting the flight trajectory.

The GSD also plays a crucial role in establishing a connection between the acquisition phase and the requirements of the final deliverables. It can be used to calculate the metric scale (1:m) for traditional orthophotos, which can then be used to generate 2D drawings such as plans, sections, and elevations. The GSD serves as a fundamental parameter in the communication between the pilot and the specialists who will utilize the products of the photogrammetric acquisition following the final delivery.

## *2. Drones and photogrammetry. Some general considerations*

### *2.1. GCPs, RTK, PPK: georeferencing the project*

Photogrammetric projects, including those involving drones, require "3D external information" for georeferencing. These projects inherently encounter ambiguity and need to undergo scaling, rotation, and translation to align with a specific reference system. The term "external" implies that the image content alone cannot resolve this ambiguity.

One viable solution involves measuring well-distributed points in the area or on the object. Among the various options available, utilizing a GNSS receiver in Real-Time Kinematic (RTK) mode enables operators to record precise positions of distinguishable ground points (such as corners, manholes or targets) that can be subsequently measured within the images. The accuracy of these methods can reach approximately  $\pm 2\text{-}5 \text{ cm}$ .

Alternatively, drones equipped with GNSS receivers capable of operating in RTK or Post Processed Kinematic (PPK) mode can be employed to determine image locations instead of capturing control points on the ground. Additionally, drones typically enjoy superior sky visibility compared to terrestrial locations. The primary practical distinction between RTK and PPK lies in the calculation of precise

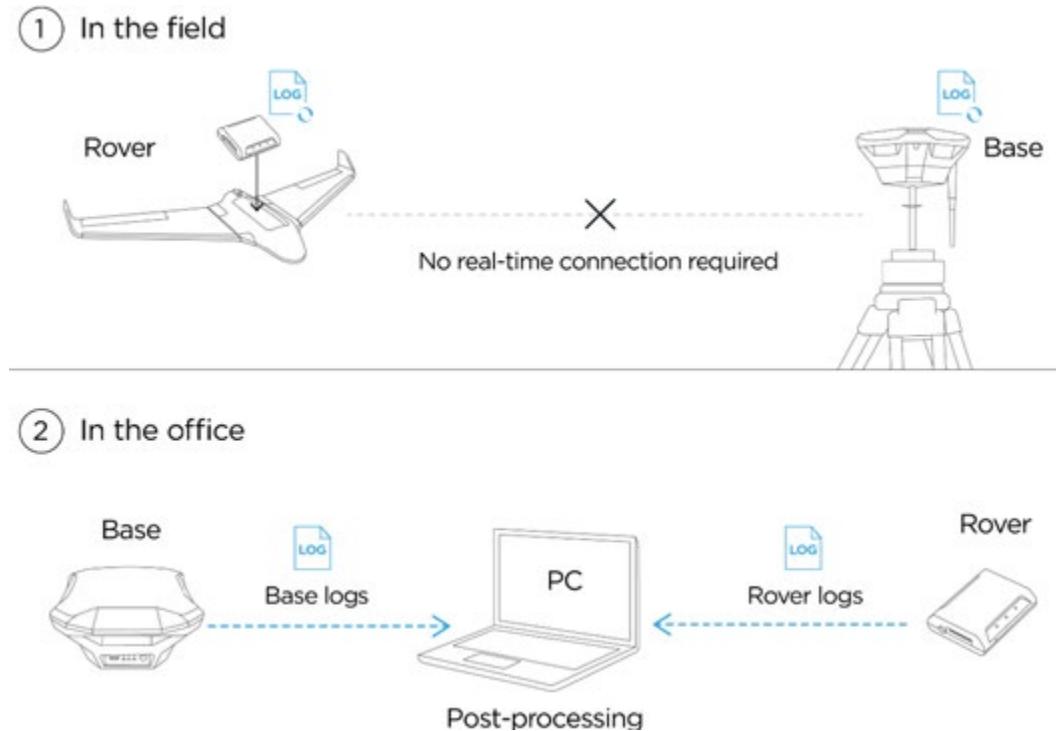


Figure 4. Difference between RTK (top) and PPK (bottom) (<https://emlid.com>, accessed 14 March 2024).

camera locations; RTK offers real-time corrections, while PPK involves the computation of accurate camera positions later in an office setting (fig. 4).

The advantage of having precise camera locations lies in the ability to georeference photogrammetric projects directly. This approach proves particularly beneficial in areas where measuring control points with sufficient ground distribution is challenging. In general practice, capturing some control points and employing a combination of both methods is advisable. Additionally, including some points as check points—points not directly used in photogrammetric processing—allows for evaluating metric accuracy through their 3D coordinates.

### *Considerations on the Italian Reference System*

Based on the author's experience, the results of the digital documentation phase are typically generated within either a local Cartesian or a cartographic reference system. The use of a cartographic system often leads to confusion among the various stakeholders involved in the project. A simple question like, "Which reference system will we use for the project?" often produces diverse and incomplete responses, including terms like UTM, ROMA 40, WGS84, RDN, ETRF89, ETRF2000, and more. Occasionally, the choice of a reference system remains a complex issue for several specialists involved in the project. Professionals working with GIS data accessible through geoportals frequently encounter different reference systems, further adding to the confusion. Additionally, changes in reference systems are not entirely clear to various specialists dealing with georeferenced information.

The *Nota per il corretto utilizzo dei sistemi geodetici di riferimento all'interno dei software GIS aggiornata a Gennaio 2022*<sup>6</sup>, issued by the Istituto Geografico Militare (IGM), offers clarity on some of these concerns.

One solution to address these challenges is the utilization of a GNSS permanent network registered within the current Italian reference system. Data acquisition through methods like RTK or other forms of differential measurements, with the master receiver featuring coordinates in the correct system, directly provides the desired coordinates. These are typically presented in the format of latitude-longitude-ellipsoid elevation or North-East-ellipsoid elevation. To calculate orthometric elevation, the user can refer to the geoid model provided by IGM rather than relying on global geoid models available in photogrammetric packages (such as EGM96 or EGM2008).

### *3. Some examples*

We consider the case of five areas in Calabria acquired with a drone, using automated flight pre-planned before reaching the site (fig. 5). The areas include the municipalities of Ferruzzano, Canolo (both old and new areas) and Bruzzano (both old and new).

The aim of the acquisition was the production of detailed orthophotos showing the areas with sufficient level of detail. The GSD was planned considering the requirements of the architects involved in the project, flight restrictions, and the time necessary to operate the drone and recharge the

6. The document is accessible at the following link: The reader can access this note via the following link: [https://www.igmi.org/++theme++igm/pdf/nuova\\_nota\\_EPSG.pdf](https://www.igmi.org/++theme++igm/pdf/nuova_nota_EPSG.pdf), last accessed December 2023



Figure 5. The five surveyed areas distributed in three municipalities (elaboration by L. Barazzetti 2023).

batteries (6 batteries were available, offering an expected flight time of more than 1h30m). The camera was also precalibrated, and the flights included both normal (camera oriented 90°) and convergent images. The aim of tilted images was not the reconstruction of vertical surfaces (facades) but mainly to acquire additional images to be used in bundle adjustment, strengthening block geometry.

Image acquisition was carried out in two working days, including the time to move from the different places. Processing was carried out with the main aim of extracting high-resolution orthoimages, which could show the details with a level of detail higher than traditional aerial orthophotos. Figure 6 shows an example of an orthomosaic for Ferruzzano. The image is also georeferenced to be imported into GIS software and overlapped with other geospatial datasets. As can be seen, the resolution allows the identification of conditions, with multiple buildings having major damages.

While orthophotos are often regarded as a standard output of the digital documentation phase, a single drone flight can yield a multitude of other valuable products. For example, a Digital Surface Model (DSM) can provide the missing third dimension that orthomosaics lack (fig. 7). When contour lines are necessary, filtering the DSM or point cloud to retain only the terrain can pose not only technical challenges (as automated algorithms may require extensive manual correction) but also

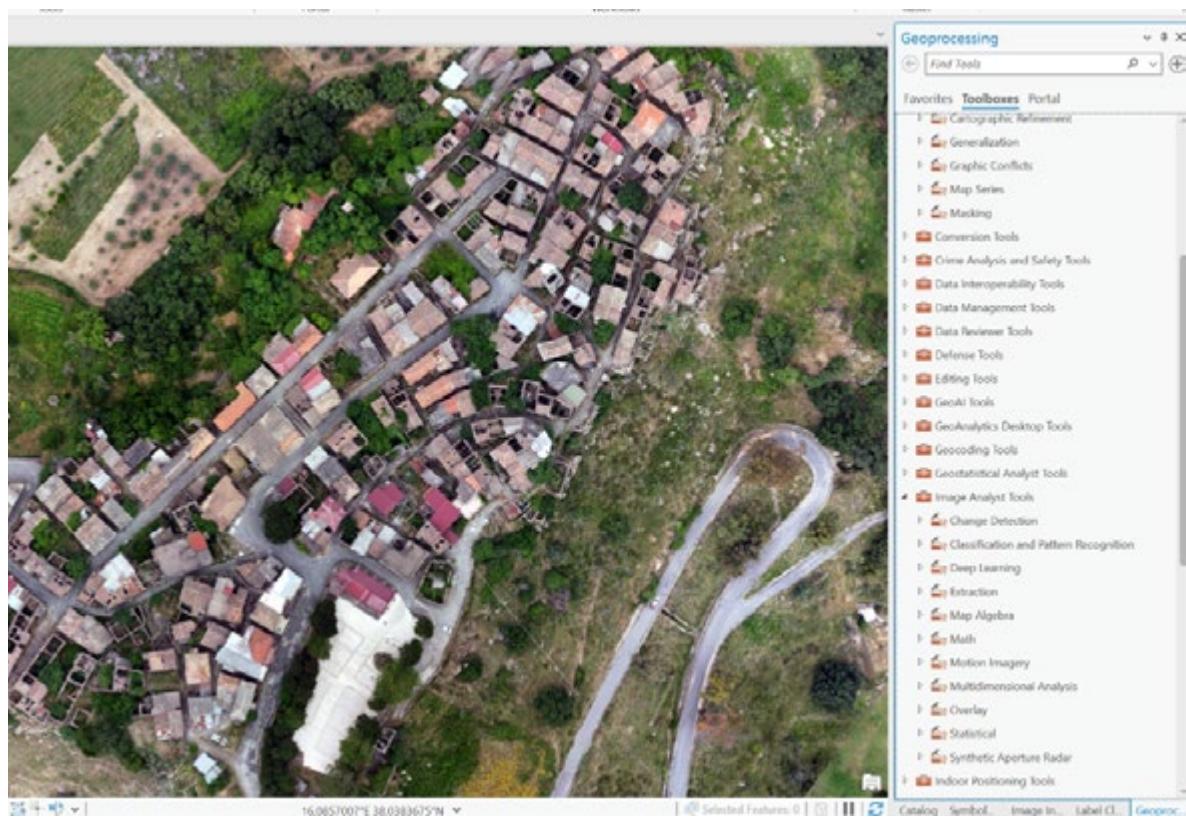


Figure 6a. Ferruzzano superiore, Reggio Calabria. The overall ortho-mosaic of the village (photo and elaboration by L. Barazzetti 2023).

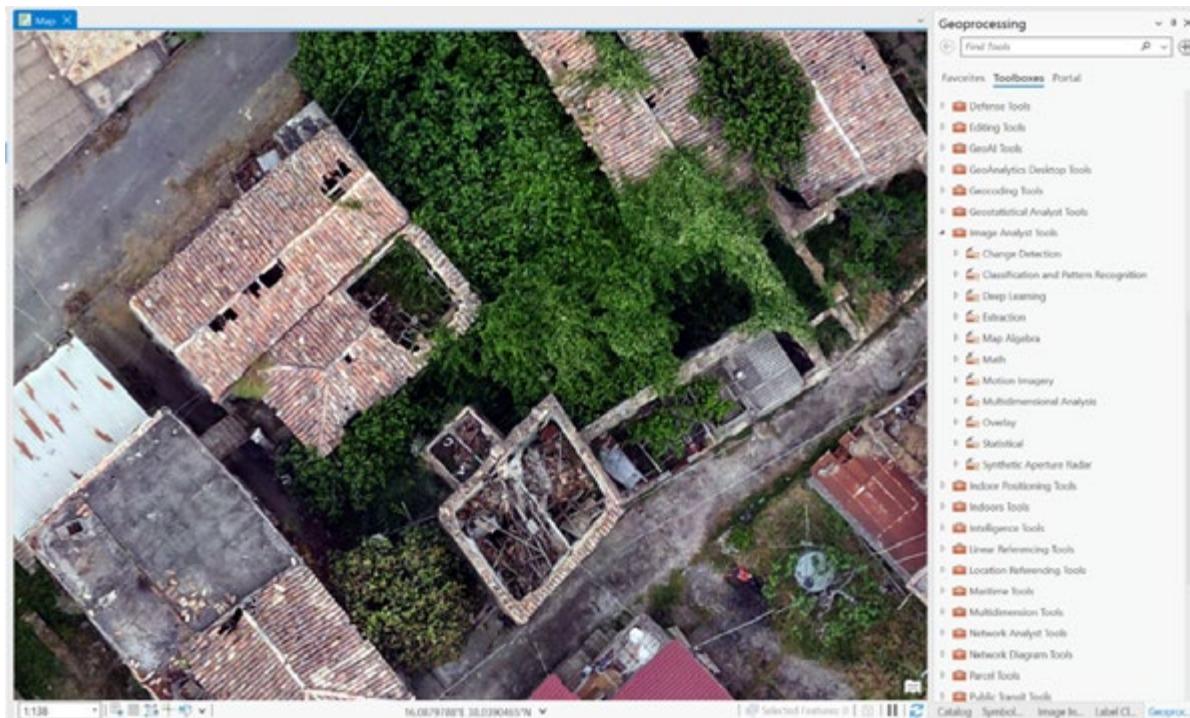


Figure 6b. Ferruzzano superiore, Reggio Calabria. A zoom showing the achieved level of detail (photo and elaboration by L. Barazzetti 2023).

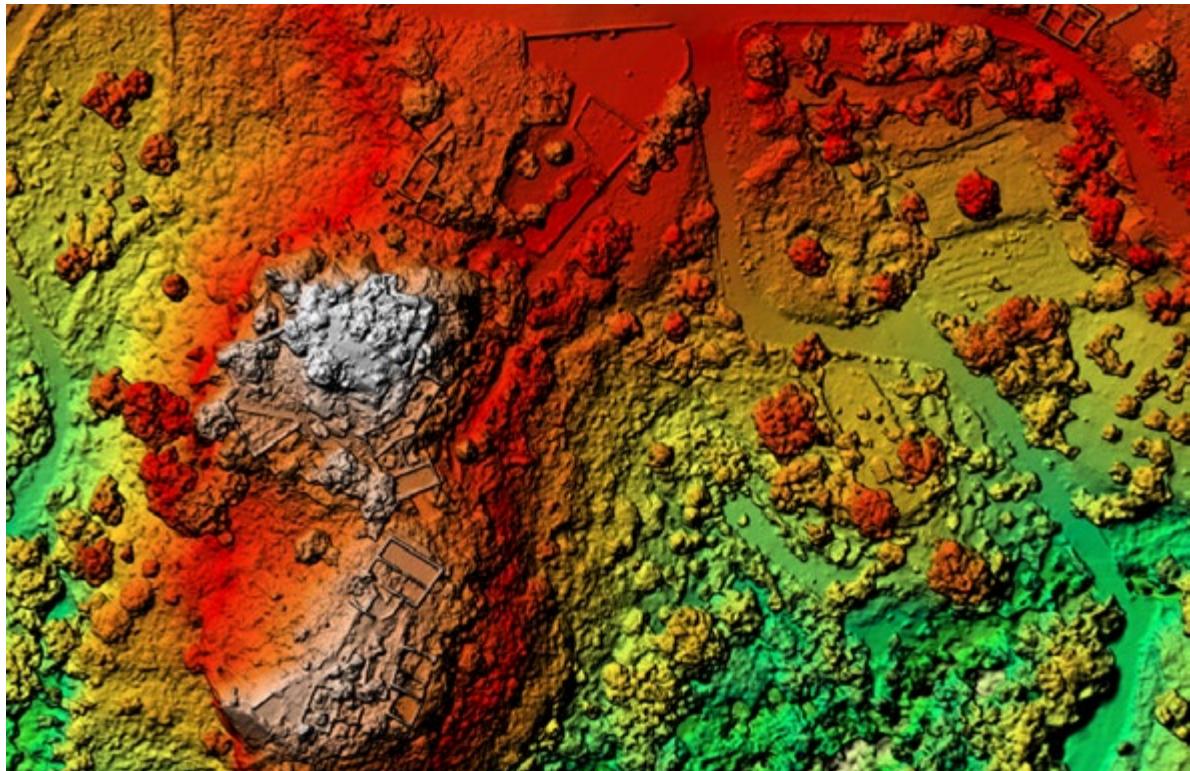


Figure 7. Bruzzano Vecchio, Reggio Calabria. The DSM (as hillshade) (elaboration by L. Barazzetti 2023).

necessitate decisions on what to exclude, particularly in models with higher resolution than traditional cartographic products. These decisions are closely tied to the project's objectives.

It would be a mistake to categorize orthophotos and DSMs as true 3D deliverables. They can be better described as 2.5D products, providing a single RGB or elevation value for specific cartographic locations. In other words, for a comprehensive 3D representation, the image block's geometry must possess different characteristics to capture vertical surfaces, such as building facades. This becomes particularly challenging when guaranteeing the same ground sampling distance (GSD) for the lowest parts of buildings, which may be difficult or impossible to capture in narrow streets. Integrating ground data with more traditional methods like terrestrial photogrammetry and laser scanning would complement the project despite the challenges of registering all the products within a unified environment and the increased on-site workload.

The range of potential applications and products is, therefore, vast and highly dependent on the unique characteristics of inner areas. Therefore, a preliminary inspection, meticulous planning, and ongoing dialogue between the pilot (also considered a photogrammetry expert) and the other specialists involved in the project are always essential.

### *Considerations and conclusions*

Planning the acquisition of images for the metric documentation of inner areas with drones is not only a photogrammetric problem. It can only be executed effectively when various aspects are carefully considered, including the project's specific requirements, which necessitate a close dialogue between the pilot/photogrammetry specialist and other personnel involved in the project. It also involves adherence to legislative aspects related to drone operations and data quality aspects during acquisition and processing. Equally important is contemplating the future use of the photogrammetric outputs, as they constitute input data for subsequent work undertaken by professionals in the field.

The paper also described some experiences conducted in five areas in Calabria, employing a drone equipped with automated pre-planned flight routines executed before reaching the actual survey site. The primary goal of this data collection was to generate highly detailed orthophotos that could depict these areas with sufficient precision. The research is specifically focused on comprehending how a history-based approach can clarify the reasons behind the abandonment of these small settlements (specifically Canolo Vecchio, Ferruzzano Superiore, and Bruzzano Vecchio in the province of Reggio

Calabria) and direct potential strategies for reuse, the utility of obtaining high-resolution images has proven particularly valuable for gathering data otherwise inaccessible at various scales.

At the urban scale, for instance, orthophotos enable a comparison with other historical cartography (especially aerial photos) to understand the speed at which the phenomenon of settlement ruination, or the abandonment of specific parts, is advancing. In the case of Calabria, this task is further complicated by the limited documentation of the territory since the post-World War II era and the numerous natural disasters that have often resulted in the destruction of historical archives. At the architectural scale, orthophotos prove especially useful for analyzing damage to inaccessible parts (such as roofs or high zones of buildings). Of course, there remain challenging aspects to address. In cases of not recent abandonments that have led to the complete ruination of settlements and surrounding territories, the use of drones, in many instances, is inconclusive. In the specific instance of this research, for example, the possibility of obtaining a high-resolution orthophoto of the Africo site had to be abandoned. This is because the complete coverage of ruins by vegetation would have yielded unsatisfactory results, with the added risk of damaging the instrument.

For these reasons, the planning of the Ground Sampling Distance (GSD) considered specific requirements by the specialists involved in the project. It also factored in flight restrictions and the operational time required for the drone, including battery recharging intervals. Furthermore, the camera utilized for this endeavor had been precalibrated, and the flight routes were meticulously designed to encompass both nadir images (where the camera was oriented at 90 degrees) and oblique images. The inclusion of oblique images served a distinct purpose: it wasn't primarily intended for reconstructing vertical surfaces, such as building facades, but rather to acquire additional images that would enhance the bundle adjustment process and the overall block geometry.

While the photogrammetry specialist may not be directly engaged in the future application of the data, establishing a dialogue and comprehending how these outputs will be utilized can prevent the production of deliverables that do not align with the end users' expectations.

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# LOST AND FOUND

Processes of abandonment of the architectural and urban heritage  
in inner areas. Causes, effects, and narratives (Italy, Albania, Romania)



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## Per una mappa digitale del patrimonio costruito in disuso: il caso di Ferruzzano. Metodologia e esiti della mappatura

Morena Scaglia, Caterina Valiante (Politecnico di Milano)

*A seguito di alcune premesse riguardanti le potenzialità e i possibili utilizzi della cartografia digitale nei processi di conoscenza dei piccoli centri storici, il presente contributo propone un metodo speditivo per valutare le principali caratteristiche e lo stato di conservazione del patrimonio costruito di piccoli insediamenti siti in aree marginali. Verranno illustrati nello specifico l'approccio selezionato per la raccolta dei dati, la metodologia utilizzata per elaborarli e i risultati ottenuti. Questa parte della ricerca RIBA ha l'obiettivo di definire possibili modalità per comprendere le problematiche peculiari dei piccoli centri storici a rischio di abbandono, sperimentando questo approccio attraverso un caso studio, l'antico insediamento di Ferruzzano Superiore (Reggio Calabria), per testimoniarne la flessibilità e la possibilità di applicazione ad altri contesti simili. I dati raccolti attraverso rilievi speditivi sul campo, che hanno riguardato le caratteristiche urbane e architettoniche del patrimonio costruito e lo stato di conservazione delle strutture e dei materiali, sono stati raccolti in un database digitale e sintetizzati in mappe tematiche, evidenziando le criticità individuate. L'applicazione di questa metodologia mostra come tale approccio, seppur speditivo, possa fornire una base conoscitiva essenziale per supportare i processi decisionali che coinvolgono il riutilizzo e la valorizzazione del patrimonio architettonico dei piccoli centri storici.*

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# Digital Mapping for the Neglected Built Heritage: the Case of Ferruzzano Superiore. Methodology and Outcomes

Morena Scaglia, Caterina Valiante

The RIBA research *Lost and Found* included the framing of analytical approaches to the knowledge and preservation of abandoned small historical centres. In this regard, part of the investigation has been implemented at the architectural scale through the analysis of the old settlement of Ferruzzano (Reggio Calabria), a municipality classified as “peripheral” by the National Strategy for Inner Areas and included in the Grecanica pilot area<sup>1</sup>.

Within the framework of a history-based approach<sup>2</sup>, this study was developed along two different axes: the processes of knowledge of small historical settlements and the methodologies for transferring data into digital tools. The goal of this part of the research is to define and experiment with an expeditious method to comprehend the features of the town in terms of built heritage and broader context and to gather and disseminate the data and the obtained results through an agile tool for other scholars but also for supporting the decision-making processes at a local level.

This article is the result of the joint work of the both authors: however, from an editorial point of view, the introduction and *From filling to mapping* are to be attributed to C. Valiante, *Ferruzzano: the case study* and *Sheets for the census of the historical buildings and open spaces* to M. Scaglia.

1. For further details about the Grecanica area, see: <https://www.agenziacoesione.gov.it/strategia-nazionale-aree-interne/regione-calabria-aree-interne/grecanica/> (accessed 15 July 2023).

2. For more information about the history-based approach proposed see OTERI in this volume, pp. 8-39.

Furthermore, the conducted analyses are aimed at investigating the morphology, the kinds of construction and functions of the built heritage, assessing the state of use and conservation, verifying the transformations that occurred, and finally archiving the – constantly updatable – data collected.

The studies about small historical centres in marginalised areas have been quite diffused lately<sup>3</sup>, regarding the state of conservation of the built heritage, the strategies for its regeneration, the tools for assessing risks and threats, the abandonment processes, and implementing digital tools. As stated by various authors<sup>4</sup>, the preservation of small historical centres still represents an open issue since their configuration and morphology are peculiar and different from the single monuments: they require a specific approach, as they are not a simple summation of cultural heritage but a complex system<sup>5</sup>. In this sense, digital tools can represent an effective device for facing these issues.

The opportunities given by digital mapping tools, mainly Geographic Information Systems, have been widely experienced at a territorial scale in the field of urban planning since the Eighties<sup>6</sup>. In the field of architectural preservation, these tools are generally implemented for the mapping and organisation of data regarding monuments or single buildings<sup>7</sup>, however, they were also applied to historical centres thanks to experimentations on academic and institutional levels. Among the first studies about the implementation of GIS systems for historical centres there are some important surveys and filing proposals for differentiating the categories “cultural heritage” and “historical centre” within wider census initiatives<sup>8</sup>. Extensive research has been conducted mainly regarding the relationship between historical settlements and risk mitigation, in particular in seismic contexts<sup>9</sup>. The latest investigations in this field were developed in the framework of the Italian *Carta del Rischio*, the “Risk

3. Within the studies about the historical centres, the activities of the National Association Historical Centres (ANCSA) have been crucial, starting from the national conference for the protection and preservation of the historical centres held in Gubbio in 1960, see ANCSA 1961. More recently, many contributions published in this field, among them: ANCSA 2017; BARBANENTE, MAIELLARO 1993; BARTOLOMUCCI, CACACE 2008; BELLINI, CANEVARI, MARESCOTTI 1995; FIORANI 2019; GIAMBRUNO 2007; MONTI, BRUMANA 2004; STABILE, ZAMPILLI, CORTESI 2009; TOPPETTI 2011.

4. FIORANI 2019; GIAMBRUNO 2007; SAVARESE, VALENTINO 1993.

5. MANCINELLI, NEGRI 2019, in FIORANI 2019, pp. 55-64.

6. FIORANI 2019, p. 39; GABRIELLI 1993, pp. 229-236.

7. Among others, ACHILLE, BRUMANA 2004; AGAPIOU 2015; BARTOLOMUCCI 2003; NEGRI 2008; PANZERO, FERRUGGIA 2009.

8. Reference is made to the census proposed by BELLINI *et al.* 1995 and to the new filing proposed for the historical centres within the “Carta del Rischio” by CACACE, FIORANI 2015.

9. See the various contributions collected in OTERI, SCAMARDÌ 2020; BARTOLOMUCCI, BONZAGNI 2012; FACCIO, ZAMBONI 2020.

Charter for the Cultural Heritage", together with La Sapienza University, and proposed a first knowledge and inventory method precisely conceived for the historical centres, aiming not only to conduct an analysis of their state of conservation but also to provide technical support to future urban planning strategies. This methodology, in fact, took into consideration urban aggregates, not single buildings, assuming the settlements as systems interrelated with the context and proposing a specific cataloguing approach able to register the features of such a complex heritage<sup>10</sup>. Besides the "Risk Charter", from the institutional perspective, some attempts for the inventory and digital mapping of small historical centres were carried out both at the national and regional levels, often concerning natural hazard prevention strategies. Reference is made to the extensive work done by the Italian Central Institute for the Cataloguing and Documentation (ICCD) and the heterogeneous local initiatives that many regions realised, such as Lombardy, Veneto and Calabria itself<sup>11</sup>, which although do not provide specific surveys of the historical centres and only in a few cases indicate their delimitations. At a national scale, the Civil Protection Department experimented with a strategy for the prevention of seismic hazards and the assessment of the vulnerability of historical centres in order to provide additional support during the emergency phase, realising an "Atlas of the historical centres exposed to seismic risk", a tool implemented on various Italian municipalities but not on the entire national territory<sup>12</sup>.

In addition to these inventory and mapping initiatives on a large scale, it is necessary to quote some important in-depth studies conducted on single historical centres, mainly within the framework of post-earthquake reconstruction plans, which this research took as a reference too. Such initiatives, which will be explained in detail below, usually include extensive field survey campaigns and comprehensive cataloguing sheets that lead to thematic maps and reports intended as guidelines for public and private interventions on the built heritage.

Considering the studies mentioned above, this work aims to propose an intermediate approach between the national scale inventories and the built heritage in-depth analyses, an expeditious investigation that reaches the building scale but does not require extended field surveys, providing support to guide future settlement reuse strategies. In the Grecanica area, various initiatives for the regeneration of marginal areas and hamlets have been recently diffused, such as the National Strategy

10. See the case study applications reported in FIORANI, 2019, pp. 163-178 and 193-226.

11. In the case of Calabria, in 2011, the region defined a list of the historical centres and small settlements subject to protection and valorisation, among which Ferruzzano (Deliberazione 44, 10 febbraio 2011, LUR n. 19/02 art. 48 comma c).

12. See the Civil Protection Department website: <https://rischi.protezionecivile.gov.it/it/sismico/attivita/censimento-dei-centri-storici-esposti-al-rischio-sismico/> (accessed 15 July 2023).

for Inner Areas, the so-called “Bando Borghi” promoted by the National Recovery and Resilience Plan (PNRR)<sup>13</sup> and other local experiences activated by the Grecanica Local Development Agency, such as the “Spiti ti musikì”, a “House for the music” founded in Gallicianò for the preservation and valorisation of local traditions. Similar strategies could represent useful occasions for the relaunch of the territory, although it appears essential to ensure appropriate interventions on the architectural heritage through expeditious methods addressed to the local authorities.

For this purpose, the paper deals with the step-by-step process carried out to assess the built heritage consistency and state of conservation of Ferruzzano Superiore, starting from the general territorial framework in which it lies, to proceed with the on-site survey campaign, data collection and processing through digital mapping tools with the aim of equipping institutions with intuitive tools at support of their decision-making processes in light of unfolding the hamlet reactivation potential<sup>14</sup>.

### *Ferruzzano: the case study*

#### *State of the art, Services, Urban structure*

Ferruzzano Superiore is one of the many little-known towns in Calabria that split in the last century in favour of safer and more accessible settlements, unaffected by hydrogeological instability and more favourable in terms of job opportunities<sup>15</sup>. Its newer "downstream" town lies along the coast and it's called Ferruzzano, the seat of a peripheral municipality counting 736 inhabitants<sup>16</sup>, while Ferruzzano Superiore, the historic hamlet, is positioned "upstream" on the homonymous hill, 475 meters above sea level<sup>17</sup>.

In a barely urbanised territory where the natural component is predominant, Ferruzzano Superiore overlooks the Aspromonte National Park to the west, the Ionian Sea to the east and the Fiumara Laverde to the north, in an enviable geographical location where Ferruzzano Superiore dominates the arid Mediterranean landscape from above.

13. Ferruzzano is one of the sixteen municipality of Calabria funded by the Line B – “Proposals for the cultural and social regeneration of small historical hamlets” (total amount: € 1,5 million); <https://www.beniculturali.it/comunicato/approvazione-graduatorie-aggiornate-decreto-sg-n-378-del-200423-pnrr-m1c321-atrattivita-dei-borghi> (accessed 15 July 2023).

14. See PISTIDDA in this volume, pp. 228-259.

15. TETI 2020.

16. Up to 01/01/2024-ISTAT. See <https://www.tuttitalia.it/calabria/92-ferruzzano/> (accessed 8 September 2023).

17. See MAREGGI, ROMBOLÀ in this volume, pp. 126-149.

Located 65 km from the capital Reggio Calabria and 120 km from Catanzaro, Ferruzzano Superiore's residents for goods and services (education, health, mobility) lean on the coastal towns, from Bianco to Brancaleone, reachable at the most with 25 minutes by car, while the nearest hospital is in Locri, distant by the same means a little less than an hour (fig. 1).

As of today, the built fabric of this hamlet is largely empty, with around a decade of permanent residents, a result of a process of migration concentrated in recent times because of the 1908 royal decree of settlements for consolidation and/or transfer<sup>18</sup>, the 1973 regional laws on the same topic<sup>19</sup> and, mostly, the last earthquake hitting Ferruzzano in 1978<sup>20</sup>.

The advanced state of generalised decay in which the village currently lies is the result of this exodus process, whereby the absence of daily use has been combined with the neglect of the owners and their descendants in maintaining the inherited properties, only occasionally in good condition to betray a possible use as seasonal residences.

The abandonment that characterises the built-up area has not equally affected the farmlands along the slopes; although greatly reduced in number, orchards and vegetable gardens are still cared for by owners who go there specifically. Vines and olive trees are the predominant crops, while the cultivation of mulberry trees for silkworm breeding is also historically attested<sup>21</sup>.

Ferruzzano Superiore occupies the entire hill ridge while at its foot there are two expansions, Saccuti (to the east) and Stinchi (to the west), built post-earthquake 1908<sup>22</sup>.

The village is crossed by a driveway that reaches it from the "orecchione" of via Pioppo and continues to the locality of Stinchi after branching into via Giacomo Matteotti, and from there to the village's only square, via Umberto I, and its parallel, the wider and longer Via Regina Margherita (fig. 2).

The building system has a compact layout, visibly designed for slow travel, especially in the northernmost and southernmost parts, likely the oldest. As for the square overlooked by the Church of San Giuseppe, it is conceivable that before the 1908 earthquake, there was the same dense built-up area. Indeed, Michele Spinella reports: «Il terremoto [...] non aveva distrutto tutto il paese ma quella parte soltanto che era a sud-est e comprendeva i rioni Piazza e Pioppo, ed era la parte più bella»<sup>23</sup>.

18. National Law, 30<sup>th</sup> July 1908, n. 445, Titolo II, *Provvedimenti per le Calabrie*.

19. Regional Law, 31<sup>st</sup> August 1973, n. 16, *Trasferimento e consolidamento degli abitati colpiti da calamità naturali*.

20. E.L. 1978, p. 5.

21. SPINELLA 1996, p. 24 and p. 44.

22. PERRONE 2007, p. 22.

23. SPINELLA 1996, p. 76.

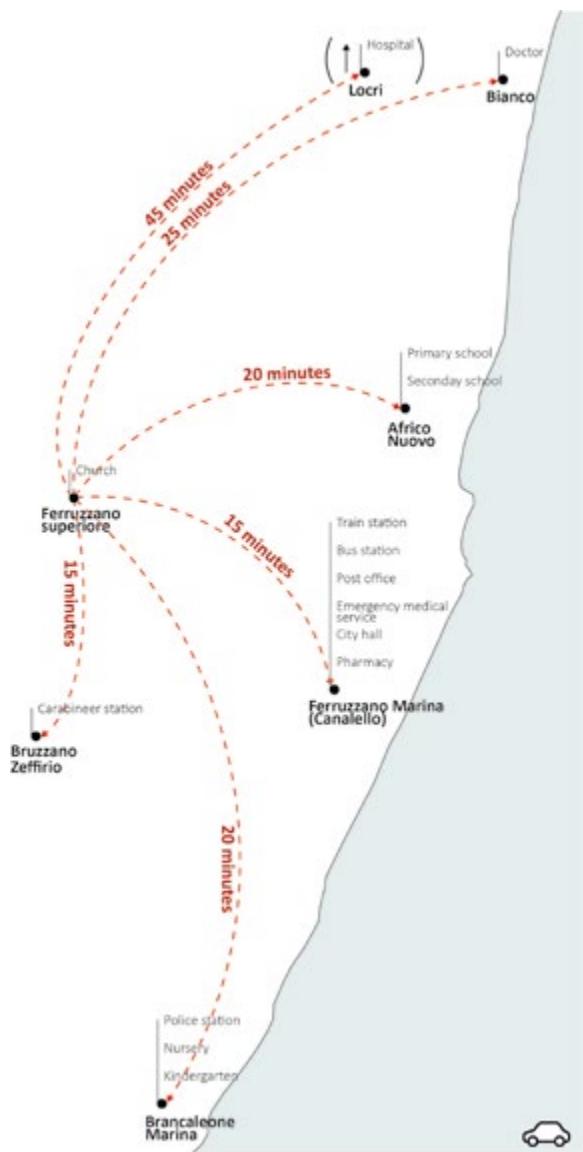


Figure 1. Distance of Ferruzzano Superiore from the main services (elaboration by the authors).



Figure 2. Accessibility to Ferruzzano Superiore and layout (elaboration by the authors).

### Sample area

To determine possible strategies for the preservation and compatible reuse of individual assets and, on a larger scale, of the entire town of Ferruzzano Superiore, reporting the state of the art has been an obligatory step.

Having assessed the anteriority of the built-up area at the top of Ferruzzano hill with respect to the twentieth-century offshoots, the orographic margins of the relief have been taken as boundaries of the surveyed area.

Out of this perimeter, saturated with buildings or their traces, further portioning has been established for the analysis of the built-up component. Meanwhile, for the open spaces, the study has been extended to the entire core; indeed, for the built heritage, the shortage of time and the

impossibility of accessing some buildings led to the identification of two significant sample areas from which to generalise and extend the results to the entire built heritage of Ferruzzano.

To collect a significative picture of the centre to determine its reactivation potential<sup>24</sup>, it has been chosen to prioritise the most historically consistent built comparts, leaving for later stages very transformed areas and very ruined ones. As a result, by joining the northernmost and southernmost parts of the built-up area through the survey of the urban wings overlooking Via Regina Margherita, the survey of 247 out of 356 cadastral parcels has been carried out, with an outcome of more than 2/3 of the properties checked.

To proceed in the mapping, the paper sheet 7 of the urban building cadastre of Ferruzzano Municipality has been taken as base where to identify the comparts to study (fig. 3). Having named them with a letter to support the subsequent identification of the cadastral parcels therein contained, the cataloguing of the information was conducted.

In the onsite campaign, a rich photographic collection and eidotypes of the urban fronts were collected for each parcel to support and implement the filed information, complementing the available material to share open source through QGIS a rich and homogeneous information set.

### Sources

The study of the potential for reactivation of the built heritage and, consequently, of the open space, is set on the criterion of the expeditious survey, capable of describing the buildings and the outdoors in their essential characteristics, focusing on aspects related to their architectural and constructive nature and state of preservation.

A well-established practice for the approach to historic centres, also in the aftermath of natural disasters, consists in the analysis of the existing by means of thematic maps. Following this praxis, common among others to the Carta del Rischio<sup>25</sup> and to the preparatory studies for the reconstruction plans of the municipalities in the Abruzzo crater after 2009 earthquake (Fontecchio<sup>26</sup>, Capitignano<sup>27</sup>,

24. To deepen the theme of reactivation potential, see PISTIDDA in this volume, pp. 228-259. Concerning potential strategies for reactivating the small historical centres, a practical application on Craco medieval village is presented in DE CADILLHAC, CATELLA 2020.

25. FIORANI 2019.

26. *Piano di Ricostruzione di Fontecchio- Relazione generale*, a cura di Politecnico di Milano, 2012; <http://www.comune.fontecchio.aq.it/piano-di-ricostruzione/> (accessed 2 September 2023).

27. *Piano di Ricostruzione comune di Capitignano- Relazione generale*, a cura di Università degli studi "G. D'Annunzio" Chieti-Pescara, 2012; <https://www.dda.unich.it/ricerca/piani-di-ricostruzione/pdr-capitignano-consulenza> (accessed 6

Castel di Ieri<sup>28</sup>), the assessment of Ferruzzano Superiore consistency of the built heritage and open spaces and the determination of their state of preservation has been approximated to parameters that allowed an urban-level reading of the general state of maintenance and of the main constructive characteristics of the hamlet.

To arrive at this targeted goal, a schedographic tool compliant to the purpose of the investigation in the tight timeframe available has been set up, starting from the reworking and simplification of the above-mentioned references and after a preliminary study of the site through cartography, bibliography and photographic documentation.

The survey forms, drafted considering both built and open spaces, present lists of options calibrated on the specific case study from which to choose, with the possibility to integrate the available linguistic and numerical terms with free textual additions to guarantee flexibility of compilation to the group of compliers.

Adjustments to the sheets have been made in the aftermath, on the basis of the onsite visit and in light of extending the methodology of the reactivation potential analysis to other centres, an operation that nevertheless could require the entries to be slightly improved on a case-by-case basis after a preliminary theoretical approach to the sites object of study.

Given that all the survey sheets are included in the appendix of this volume<sup>29</sup>, a schema summarizing their main contents is provided (fig. 4) to enhance guidance for the reader through the upcoming sections of the paper, where they will be described in detail, reporting, for each macro-section, the related sets of alternatives from which to choose.

### *Sheets for the census of the historical buildings and open spaces*

#### *Introductory sheet*

Determining whether the buildings were “Accessible-Partially accessible-Not accessible” helped in the first stage to calibrate the survey time. For buildings that were not accessible, most likely because they were still in use or otherwise maintained, the survey has been oriented on the analysis

September 2023).

28. *Piano di Ricostruzione comune di Castel di Ieri- Relazione generale*, a cura di Università degli studi "G. D'Annunzio" Chieti- Pescara, 2012; <https://www.dda.unich.it/ricerca/piani-di-ricostruzione/pdr-castel-di-ieri-consulenza> (accessed 7 September 2023).

29. See SCAGLIA, VALIANTE in this volume, pp. 324-351.



Figure 3. Cadastral map with surveyed comparts and sample area (elaboration by the authors).

of the general state of preservation and the state of conservation and consistency of the fronts and roofs only, while for those that were accessible, it was possible to take the survey to a higher level, also considering horizontal partitions and interior spaces.

Fundamental in determining the potential for reactivation is to understand what function and with what type of buildings we interface, in order to subsequently imagine compatible uses with the historic ones to reflect on a possible future of the village. To do so, the state of use “Used, Unused but maintained, Abandoned, Undetectable” was added to the general sheet to allow a clear recognition of active uses and historical use categories, for which a list of functions has been prepared based on those typical of a village that historically has an agricultural spirit<sup>30</sup> (“Residential, Commercial, Religious, Warehouse, Rural, Mixed (specify which uses), Undetectable”).

By assessing the general state of preservation, the intent is to provide a preliminary judgment of the building: “Intact, Partially preserved, Presence of extensive collapse, Missing roof, Building in ruins” are the labels within which to evaluate buildings.

Intact is defined as a building that is usable and in excellent condition; partially preserved is defined as a building that is usable but affected by superficial forms of deterioration; extensive collapse refers to cases with missing or failing floors and elevation structures; missing roof refers to a precarious state of preservation in which deterioration may quickly affect internal structures and masonries, given the collapse of the roof; ruined buildings are the fragments of collapsed buildings still recognisable in the urban fabric. They are voids identifiable from the traces found on the ground as full in an earlier era.

For each property, it was deemed of interest to report whether or not in possession of a pertaining open space to be positively evaluated in the eventual perspective of reuse.

### *Elevations*

In order to understand how the built fabric is organised, the number of floors corresponding to each parcel as well as their number of built boundaries were recorded to allow an assessment of whether the built-up area is compact or diffuse and to delineate the configuration of the urban skyline (homogeneous, homogeneous with punctual volumetric emergences, heterogeneous).

For each property, it was deemed of interest to report whether or not in possession of a pertaining open space to be positively evaluated in the eventual perspective of reuse.

30. PERRONE 2007.

## CONSERVATION AND REUSE OF THE BUILT HERITAGE

### INTRODUCTORY SHEET

1. Building location and inspection
2. State of use and intended use
3. General state of conservation
4. Presence of pertaining open spaces
5. Photographic collection
6. Meaningful sketches

### SURVEY SHEET OF THE CONSISTENCY AND STATE OF CONSERVATION OF THE BUILDING

<i>ELEVATIONS</i>	<i>HORIZONTAL PARTITIONS AND INTERNAL STRUCTURE</i>	<i>INTERIORS</i>
1. Geometry and morphology	1. Roof structure	1. Dimensional characteristics of the interiors
2. Masonry	2. Floors structure	2. Plant equipment
3. Balconies, loggias and galleries	3. Characteristic structural elements	3. Internal connections
4. External staircases		4. Characteristic elements
5. Windows		5. Interior finishings (walls & pavings)
6. Characteristic elements		
7. Provisional works		
8. Roofing finishes		

## CONSERVATION AND REUSE OF THE NON-BUILT HERITAGE

### SURVEY SHEET OF THE CONSISTENCY AND STATE OF CONSERVATION OF THE OPEN SPACES

1. Localization and intended use
2. Morphology
3. Paving
4. State of conservation
5. Furniture
6. Potentialities
7. Photographic collection
8. Meaningful sketches

Figure 4. Summary by macro categories of the survey assessment sheets (elaboration by the authors).

Relatively to the geometry and morphology of the built-up area, moreover, the review of the available bibliography has pointed out the presence of buildings that pander to the terrain's course in Oligocene soft sandstone rock on multiple levels<sup>31</sup>. The case-by-case recognition of situations where there were buildings with entrances at different elevations, leaning against slopes or near flat terrain, was considered noteworthy, especially with a view to future rethinking the accessibility to and in the village.

Quantifying the degree of transformation by reporting the addition of toilets, balconies, loggias and terraces, or any superelevation was considered of interest in order to reconstruct the plant equipment present in the buildings and to understand if and how the added elements weakened the historic building's stability.

With a view to skimming the information collected during the data processing phase, information was gathered about the type of hollow volumes present on the fronts of each parcel ("Exterior loggias, Covered balconies"), the projecting volumes present ("Balconies, Exterior staircases, *Profferli*, Service volumes") and their materials and state of preservation.

Exterior masonry finishes were classified according to material ("Recently made plaster, Mixed masonry, Plastered masonry, Brick masonry"), surface deterioration ("With no visible decay phenomena, Superficial decay phenomena, Diffused decay phenomena") and specificity (whether post-earthquake reconstructions are present or absent) while the filing of window and door frames was done according to material and state of preservation.

Wood, Iron, Aluminum, and PVC from an initial online exploration seemed to be the predominant materials and therefore included as possible items on the list while regarding the degree of preservation, inability to respond to their required function ("loss of functionality") or good state of conservation were noted.

The listing of the characteristic elements of the fronts took into account the level of degradation afflicting them as well. "With no visible decay phenomena, with superficial and with widespread decay phenomena" are the three possible evaluation criteria to be included for any stone ashlar cornices and portals, pilasters and angles, string courses, *profferli*, arches, paintings and frescoes, relief decorations (stucco, plaster, etc.), under eaves cornices, corbels, lintels (wooden material, stone, CA, masonry, etc.) and railings/railings present (fig. 5).

The presence of provisional works such as "ribs, underpinning, hoops and ties rods" is a significant parameter to be read in relation to the state of deterioration and collapse of the factories to verify the effectiveness of these principals in the preservation of the buildings, so it was included in the filing.

31. SPINELLA 1996, p. 71.



Figure 5. Abandoned buildings along Via Regina Margherita (photo M. Scaglia, 2023).

In view of what was found during the study of the few bibliographic sources available on the case study, namely that generally «il tetto veniva realizzato con tegole di creta chiamate “ciaramidi”»<sup>32</sup>, it was deemed of interest to verify whether this characteristic feature survives today. The roof covering was classified, where present, according to the constituent material and according to the extent of degradation, possibly pointing out whether it was replaced in a period subsequent to construction with a flat roofing, asbestos cladding or similar and their state of preservation, where possible to ascertain.

#### *Internal storeys and structures*

Given the possibility of access to only a few units, two additional forms were structured for the survey of storeys and interior structures and for the inside spaces, with a view to achieving a greater degree of specificity and completeness of assessment.

About the roofs, in addition to their absence or presence, it was wanted to understand how often the single, double or flat roof type recurred, in what materials they were built and in what percentage they have been preserved to the present day.

In order to assess the reactivation potential of Ferruzzano Superiore, the assessment of the state of preservation of the building passes as well through that of the preservation of the floors, which, in historic buildings of assumed heights varying between one and three stories, was considered significant for all levels.

The type of structure, whether “Flat, Flat with exposed beams or Vaulted”, the materials, whether “Wood, Bricks, CA, Steel, Laterocement or Mixed masonry”, and the finishing, whether “False ceiling, Plaster or Exposed (no finishing)” are parameters that the schedographic tool has looked at to determine what percentage of the built-up area may or may not be preserved given the superficial or diffuse phenomena from which it is affected.

Considering also the local building tradition of interrupting the large spans of the beams with pillars placed in the centre of the rooms to reduce their flexural deformation, and given the peculiar location of Ferruzzano Superiore, placed on a «*cono roccioso*»<sup>33</sup>, it was considered of interest to verify whether and to what percentage the buildings lean against or are carved out of a rock wall and present the peculiar case of the "pillar-breaker" (fig. 6).

32. PERRONE 2007, p. 13.

33. SPINELLA 1996, p. 14.



Figure 6. Characteristic presence of a central pillar in an abandoned building in via Pisacane (photo N. Sulfaro, 2023).

### *Interior spaces*

At the level of the individual parcel, if accessible, in view of possible compatible reuse, the focus went on the filing of the number of rooms, the possibility of connection with neighbouring parcels, the presence of plant equipment and characterizing elements to be maintained, both at the level of fine finishes of masonry and floors and for characteristic features such as ovens and fireplaces, niches, lintels and cornices, seats and shelves in masonry.

As connection possibilities, we refer to the possibility of independent dwellings being connected from the inside to other units in the individual subdivisions or if connected by courtyards or other devices.

### *Open spaces*

Seen as an opportunity to qualify abandoned or severely degraded building passages, the open spaces were mapped in their totality, thanks to the information collected in the onsite visit, the orthophoto<sup>34</sup>, to the photographic survey and through the digital tools (Google maps) that allowed to reconstruct information left out in the campaign phase.

The unarticulated topography of Ferruzzano Superiore reflects the steep and irregular terrain on which it stands. To determine its characters, open spaces were analysed by intended use ("Pedestrian, Driveway, Parking areas or Public garden"), morphology ("Flat, Slight or Steep sloping"), types of pavement ("Asphalt, Vegetation, Concrete paving, Stone slabs, Live rock"), state of preservation (whether "Perfectly preserved, or with Minor and Severe pathologies") and presence of street furniture ("Public lighting system, Benches, Manholes, Rainwater collection system").

A particular focus was devoted to the potential of open spaces ("Privileged views, Proximity of publicly owned buildings, Places of consolidated aggregation") to identify urban landscape elements such as viewpoints and monuments significant to the history of the village with a view to its promotion (fig. 7).

### *From filing to mapping*

34. Realized by Luigi Barazzetti on the 27<sup>th</sup> May 2022. On the usefulness of drone technology for surveying small centers, see Barazzetti in this volume, pp. 262-279.



Figure 7. Calvary overlooking Stinchi hamlet (photo C. Valiante, 2023).

The results of the onsite surveys, conducted through an extensive filing of part of the built heritage, have been translated into thematic maps in order to summarise and synthesise the main issues that need to be highlighted in the perspective of future reuses. Visualising the important features of such small settlements through interoperable urban scale maps, which can be updated and shared online, allows a much easier comprehension of opportunities and vulnerabilities of future programmes for regeneration. Nevertheless, this research concerns the organisation of knowledge regarding the peculiarities of the architectural heritage and its state of conservation, but it does not include guidance in terms of design and direct intervention in the buildings. The method proposed is intended as a preliminary and preparatory investigation for possible future planning phases, an essential knowledge process to understand the local heritage and context. Such introductory stages represent a fundamental step for reuse strategies, but they often represent a quite expensive procedure to the small municipalities involved, so, as mentioned above, this study is proposed as useful material that can be made available to the local actors<sup>35</sup>. In fact, the aim of this mapping phase is to provide elements that constitute not only a report and an interpretation of the current state of conservation of Ferruzzano, but also a starting point for the evaluation of possible reuse strategies.

### *Methodological aspects*

From a methodological perspective, this research wants to suggest an expeditious procedure that can be easily applied to other similar historical settlements if properly adapted to the specificities of the case study. The transformation of the synthetic filing conducted onsite into GIS database and maps allows to keep together and cross-reference multiple data that can help in interpreting the existing context, highlighting the most important features of the buildings, and reading the transformations that occurred. This is extremely useful to define an order of priorities both regarding the preservation of the site and the relaunch strategies. Moreover, the GIS allows to gather and disseminate a significant amount of data in an agile manner, thanks to the possibility of share online the contents of the maps, using the WebGIS, a method quite diffused also within the Italian public offices<sup>36</sup>.

The thematic maps were elaborated starting from an extended database, which collected the entire amount of information gathered through the filing. These data were georeferenced according

35. In this field, successful partnership between universities and public institutions has been experimented many times during the last decades, such as the case of the "Carta del Rischio" (Risk Map), see FIORANI 2019.

36. Reference is made to tools like "geoportale", an informatic platform accessible online that is currently used by several public actors such as local municipalities, provinces, and regions.

to the building cadastral map of the settlement in order to link the information to each real estate urban unit, which was identified as principal reference in this investigation<sup>37</sup>. (fig. 8) Given the extensive data collected, a selection was made based on the most important elements observed throughout the onsite visits and the study of the bibliographic material. The mapping phase focused on three main aspects that define the old settlement of Ferruzzano: the morphology of the buildings and the urban fabrics, the current state of use and conservation, and the transformations that occurred in the last decades, looking both at the interiors and the external features of the built heritage. These elements helped in identifying not only the degree of abandonment and degradation of the site but also the opportunities and potentialities that can support possible strategies of reuse or preservation, concerning, for instance, peculiar aspects of what remains or elements which can foster new uses.

#### *Morphology of the settlement*

The town of Ferruzzano Superiore, that according to some authors, was founded in the early 16<sup>th</sup> century<sup>38</sup>, appears now as a homogeneous settlement, composed of limited-size buildings which are arranged into bigger aggregates and characterised mainly by two-storey constructions (fig. 9). Part of the built heritage was reconstructed after the catastrophic events that hit the village in the last century<sup>39</sup>, as the inscriptions over some buildings report (dated 1927). Despite the simplicity of the structures, made of mixed masonry and wooden flooring and roofing, some very peculiar elements emerge. Most of the settlement lies on a rock outcrop, which was often carved for realising the ground floor or the basement, where these sandstone surfaces are still visible. From the structural point of view, the long-lasting frequency of seismic events led to interesting expedients that are quite diffused within the studied area, such as the mixed masonry provided with regular brick courses, or the wooden pillar placed at the midpoint of the main beam on the ground floor. Other peculiar elements concern the construction materials used for horizontal and interior vertical structures, among which the circular clay elements called “*carusi*” or “*caroselli*”<sup>40</sup>, diffused in very delimited areas, used to build vaults of the most important and rich buildings of the town, and the lathwork

37. The cartographic map base was elaborated starting from the building and land cadastre map, retrieved thanks to the online geographic information system of the Calabria Region, through WebGIS application, see <http://pr5sit.regione.calabria.it/navigatore-sirv/index.html> (accessed 4 July 2023).

38. SPINELLA 1996, p. 5.

39. The earthquakes in 1907 and 1978, and the floods in 1951, 1953 and 1973. See PERRONE 2007; SPINELLA 1996.

40. This technique is specifically diffused in Calabria area, see GATTUSO *et al.* 2000; RUTIGNANO 1996.

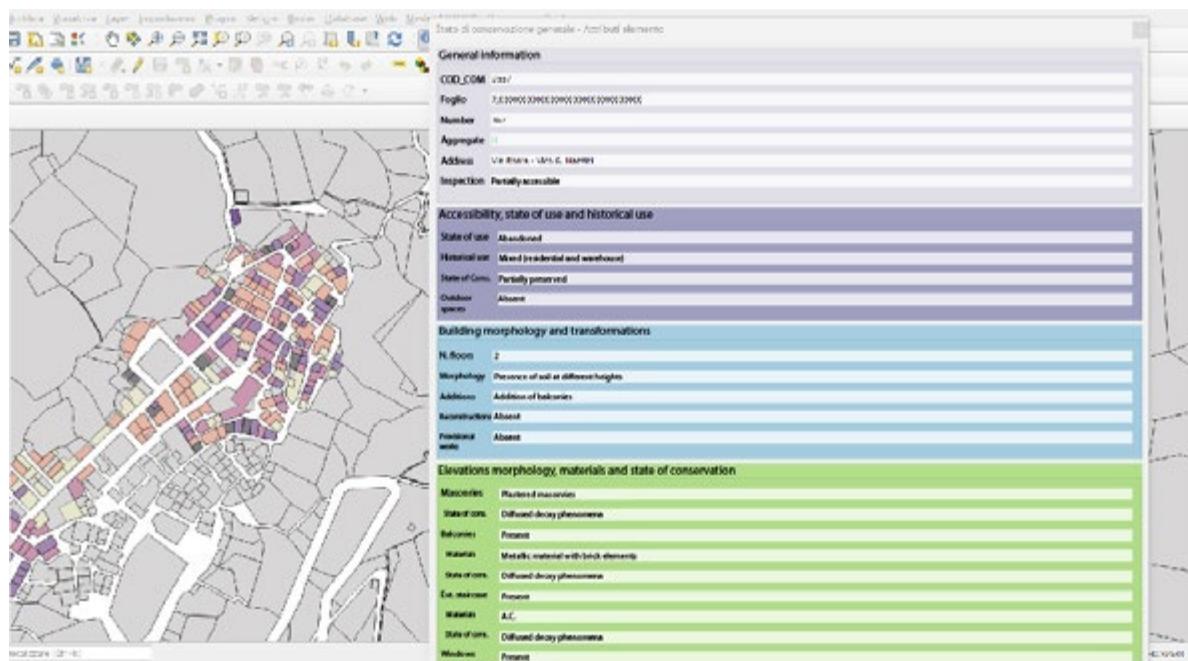


Figure 8. Example of the visualisation of a cadastral unit on the GIS model (elaboration by the authors).



Figure 9. Ferruzzano Superiore, buildings in vico Cavour (photo C. Valiante, 2023).

used in the internal partitions. (figs. 10-11) The external elevations are usually finished with lime-based plaster and framed by simple decorations, such as string courses, cornices, and architraves. As will be discussed below, many of these features are now threatened or partially lost due to the poor state of conservation and the transformations that occurred.

#### *Accessibility and state of use*

Among the investigated themes there are the actual conditions of the accessibility and the state of use of the site, which appears not completely abandoned. Very few are the permanent or long-term residents<sup>41</sup>, but a small number of buildings are well maintained and occasionally used as a vacation or second house<sup>42</sup>. In these cases, small but constant interventions of maintenance or little transformation were conducted, and the general conditions of the external structures and surfaces were good, even though the interiors were not verified because not accessible (fig. 12) The maintained-in-use and inhabited buildings are mainly distributed along the main street, via Regina Margherita, that is the most accessible and suitable road for vehicles, entirely reached by underground utilities, where the few public buildings are located (the former school and a church). While some other partially used buildings are concentrated in the area overlooking the panoramic view towards the coast (in the southeast), more accessible through the panoramic street from the main square (fig. 13). These buildings are mainly used as storage places, garages, or cellars at the ground floor, while fewer are the residential spaces at the first floor, following the most common arrangement historically rooted in the village<sup>43</sup>. Thanks to the direct observation of the current status of the building, it was possible to assess the diffusion of such arrangement since the majority of the built environment is constituted by two stored houses with mixed functions, except for the single stored structures that were mainly devoted to artisanal or farming activities, as the presence of abandoned machinery and other equipment can confirm<sup>44</sup>. It is worth noticing that the partially

41. The permanent residents in the village are around ten people, even though it was not possible to assess the precise number of the real inhabitants since many are temporary users. Looking at the data referred to the entire municipality of Ferruzzano, the buildings inhabited by not permanent residents are 40% of the total. See Istat, *Mappa dei rischi dei comuni italiani*, <https://gisportal.istat.it/mapparischi/index.html?extent=> (accessed 4 July 2023).

42. Precisely, 16% of the buildings surveyed are in a good state of conservation and temporarily used.

43. The ground floor was used as storage, stable or place for artisanal activities, while the first floor as residential space. PERRONE 2007.

44. Inside, some abandoned buildings are still present, for instance, wood-burning stoves, farming equipment, blacksmith tools, etc.



Figure 10. Ferruzzano Superiore.  
Traces of a vault made of *carusi*  
(photo C. Valiante, 2023).



Figure 11. Ferruzzano Superiore.  
Remains of the lathwork in the internal  
partitions (photo C. Valiante, 2023).



Figure 12. Ferruzzano Superiore. Partially preserved building in largo Colombo (photo C. Valiante, 2023).

On the next page, figure 13. Ferruzzano Superiore. Panoramic view overlooking the settlement of Saccuti and the sea (photo C. Valiante, 2023).



used buildings kept the same arrangement of the floors and distribution of the categories of function.

#### *General state of conservation and occurred transformations*

Due to the long-lasting abandonment processes, the old town of Ferruzzano Superiore shows a few completely ruined buildings (around 6% of the investigated area) and various structures that miss the entire roof or are affected by severe and diffused collapses (45% of the investigated area), concentrated in the less accessible northeast and southeast parts of the area. Nevertheless, a great part of the built heritage studied presents an acceptable state of conservation, being in some cases completely undamaged (around 15%) or partially preserved (32%). The overall conditions of the buildings – considering mainly the exteriors and the supporting structures – confirm that a relevant extension of the settlement is partially still used and maintained by the owners. The most ancient parts of the traditional masonries, present in vertical and horizontal structures, are the best preserved, except for the external superficial decay patterns diffused in the entire area. The mixed stone masonry, the most diffused typology, is usually finished with lime-based plasters, often affected by diffused erosion. The wooden horizontal structures and the parts transformed in recent times, such as perforated brick masonries or armed concrete elements, present the most severe degradations, as will be displayed in detail later. Considering the overall state of conservation, the conditions of the external elevations and the horizontal structures, the decay phenomena are widely diffused but concentrated in the north and southeast areas. This situation shows some criticalities in the preservation of the most fragile sides of the built heritage in abandoned or disused villages, i.e. the external surfaces and the wooden structures. However, it highlights also how the traditional masonry is quite preserved, despite the abandonment (figs. 14-16).

Together with the current general state of preservation, the transformations that occurred over time were studied in order to understand how the settlement changed during the past century, especially considering the several earthquakes and related reconstruction, and how these modifications impacted the built heritage and its conditions. A significant part of the buildings inside the studied area were modified through the addition of single elements, such as balconies or terraces, or small volumes, mainly used as external restrooms<sup>45</sup>. Such modifications are relatable to the change of needs, uses and way of living of the former inhabitants during the last century, in fact, they were made in recent times. The added protruding balconies that in many cases, were probably meant to

45. Among the studied buildings, 16% show balconies or terraces added, 15% external restrooms, just 4% shows added floors and 2% external staircases, while 60% of the total presents no addition.

replace the previous existing stone “French balconies”<sup>46</sup>, are usually built of armed concrete or a combination of steel beams and bricks, and they often show severe degradation due to the corrosion of the reinforcements. The added external volumes are often made of perforated bricks without finishings or armed concrete, so they have a wide impact on the external elevations. Furthermore, they are now affected by various decay phenomena due to abandonment and exposure to weather. In general, even though the morphology of the ancient settlement is still recognisable, the many punctual transformations – such as the above-described additions, the replacing of windows and external finishings<sup>47</sup> – that took place especially in recent times, showing no attention to the relationship with the existing heritage, partially changed the overall perception of the historical village. A more ancient, different kind of transformation was identified through the onsite investigations, which consisted of post-seismic reconstructions. These interesting interventions, in many cases, attest to a not-complete destruction of the existing structure since part of the stone or brick masonry was added to complete the damaged walls and often are characterised by a peculiar arrangement provided with regular brick courses in order to improve the resistance to earthquakes. The location of such interventions does not highlight any specific areas where the reconstructions were concentrated, and it is not possible to define part of the settlement that suffered more damages<sup>48</sup> (fig. 17).

#### *Reuse potentials of interiors and outdoor spaces*

In the perspective of assessing possible future reuse strategies for this historical centre, investigations were conducted to understand the features and the state of conservation of the interiors and of the outdoor public spaces. The investigated interiors, that correspond to the abandoned buildings that were accessible<sup>49</sup>, are mainly characterised by one or two rooms per floor and usually are affected by various degradation concerning structures and surfaces (fig. 18). As mentioned above, partial or total collapses of the wooden horizontal structures are attested<sup>50</sup>, while the decay patterns related to the presence of water infiltrations or humidity are quite diffused. Moreover,

46. Few “French balconies”, made of natural stone with iron railings, are still in place in some abandoned buildings.

47. A great number of buildings (26% of the cases within the studied area) have aluminium or metal material windows, and in some cases, the lime-based plaster was replaced by cement-based mortar.

48. According to the bibliography, the most severely struck area of Ferruzzano Superiore was the southern side, where are now concentrated several ruined buildings, however, the analysis did not show any concentration of interventions in that area.

49. The partially used buildings could not be accessed during the onsite surveys.

50. 77% of the detectable horizontal structures are affected by severe degradation phenomena.



Figure 14. Elevations' morphology, materials and state of conservation (elaboration by the authors).



Figure 15. Elevations and horizontal structures' state of conservation (elaboration by the authors).



Figure 16. Interior horizontal structures' morphology and materials (elaboration by the authors).



Figure 17. Transformations and post-earthquakes interventions (elaboration by the authors).

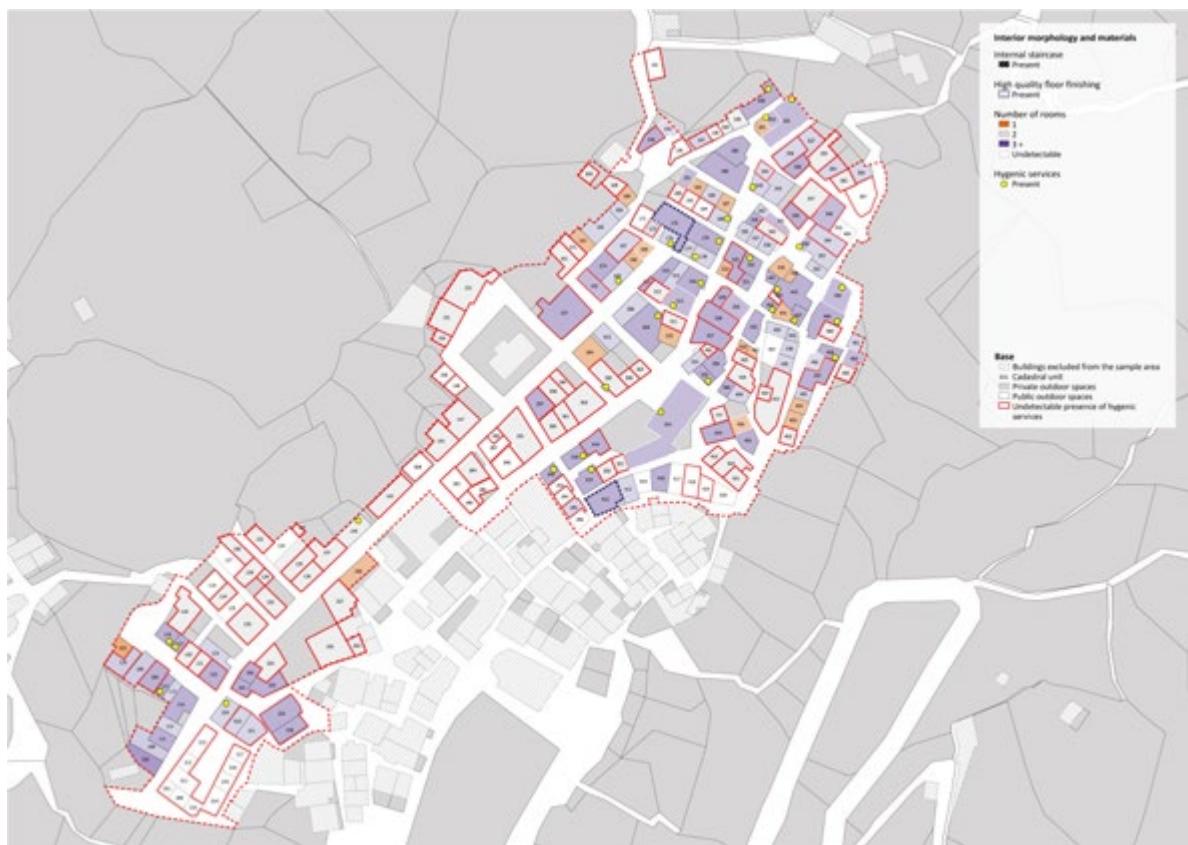


Figure 18. Interiors' morphology and materials (elaboration by the authors).

some wood-beamed ceilings were recently replaced with steel and brick structures. Very few are decorative or valuable internal finishings<sup>51</sup>, however, despite the general state of conservation, it is still possible to observe very distinctive elements of this settlement, such as the rock outcrop present in many ground floors, carved to obtain floors, walls, niches<sup>52</sup> and small stairs, stone masonry arches and vaults, wood ceilings and pillars, masonry fireplaces and ovens. With a view to future reuses, a criticality linked to accessibility and internal connections was identified. Since the above-mentioned traditional arrangement of functions did not include a direct connection between the ground and first floor<sup>53</sup>, a small amount of the buildings (18%) is provided with internal staircases, which often are simple wooden ladders. Some issues have arisen also concerning the morphology and state of conservation of the outdoor public areas. The streets of the settlement are not entirely suitable for vehicles and are mainly characterised by a significant slope. The principal, wider paths are asphalted and less affected by degradations, but the smaller ones, characterised by pebbles and stones, show various decay phenomena, such as instabilities and infesting vegetation that hinder the passage. Moreover, the urban furniture and the services, such as the lighting and hydraulic systems, are quite limited (figs. 19-20). Nevertheless, some of these spaces, especially the ones overlooking the valleys, benefit from interesting gathering points, such as small squares and very peculiar and outstanding panoramas (fig. 21).

#### *Mapping outcomes*

Through the analysis of the thematic maps, it becomes clear that a major part of the settlement is abandoned, and in some cases, the structures already appear in a state of ruin, while only a few buildings are still used for permanent and temporary uses. Moreover, the analysis highlighted many recent interventions that deeply transformed a great part of the settlement, both in the interior spaces and the external surfaces. Nevertheless, various peculiar elements still remain visible regarding the construction history of the settlement, such as the interesting historical anti-seismic protections, the post-earthquake reconstructions, and the technical expedients related to the foundation on the rock outcrop. Other distinctive aspects of the settlement are also linked to the

51. Valuable floor finishings are present in 2% of the surveyed buildings, and decorative or high-quality wall finishings in 4%.

52. The niches, called “*stipi*”, are very diffused in the village and they represent a traditional kind of furniture. PERRONE 2007.

53. The ground floors were devoted to farm or artisanal activities, so often they were not directly connected to the first residential floors, which was accessed through an external staircase.

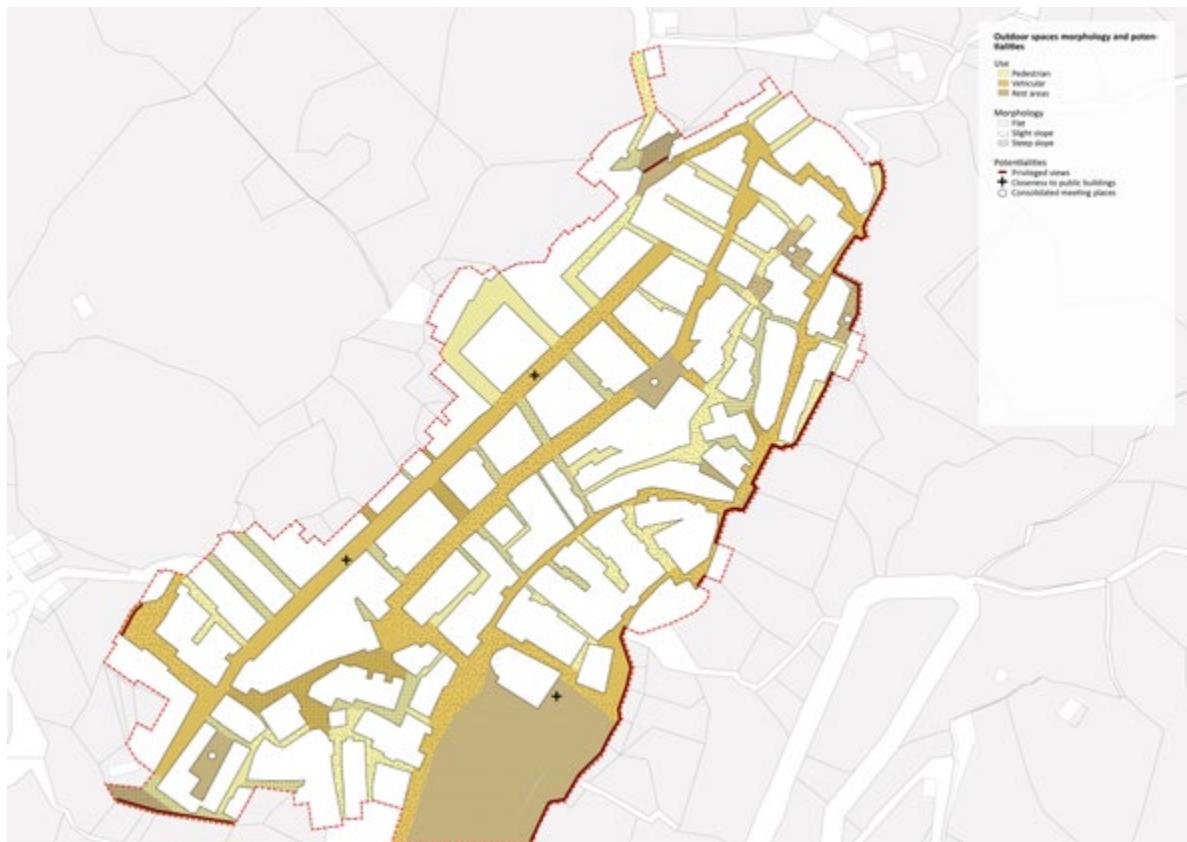


Figure 19. Outdoor spaces' morphology and potentials (Authors' elaboration).

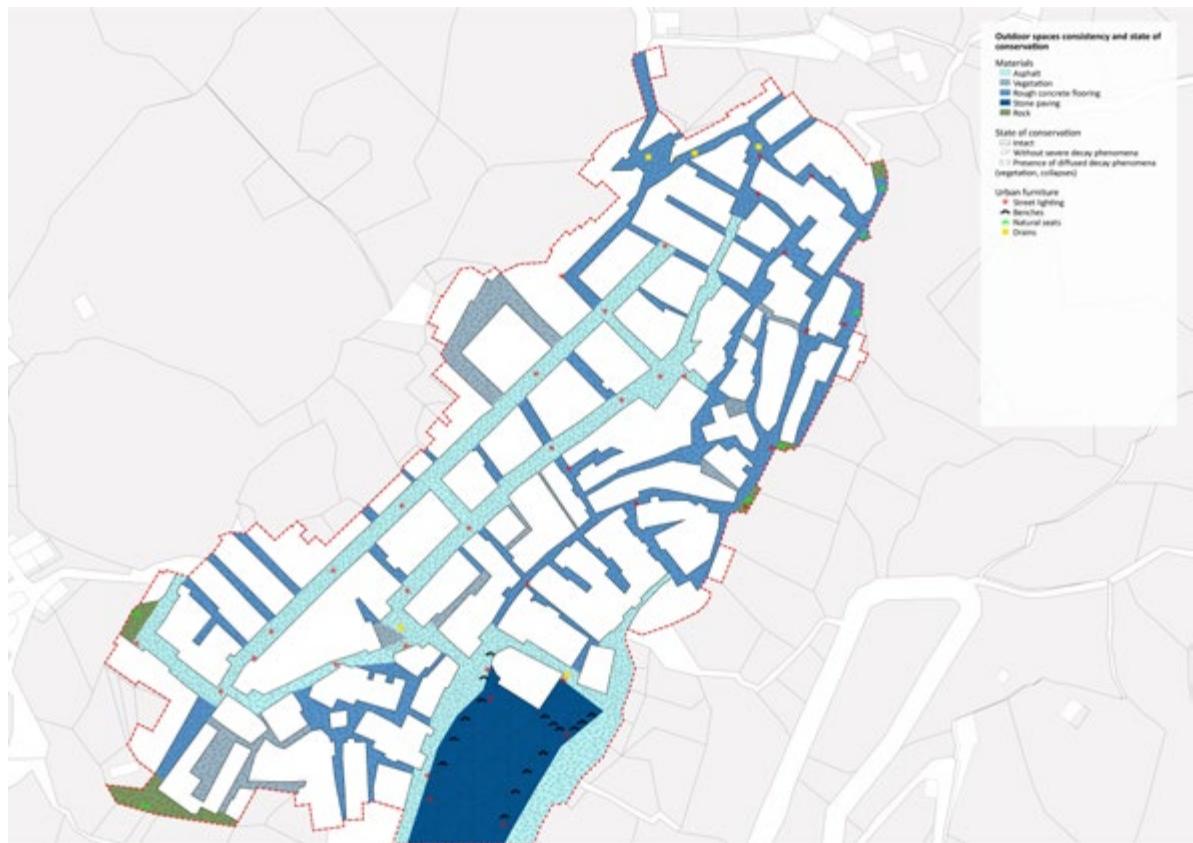


Figure 20. Outdoor spaces' consistency and state of conservation (Authors' elaboration).



Figure 21. Ferruzzano Superiore. Building in via Mazzini (photo C. Valiante, 2023).

landscape and natural environment conditions, which lead to interesting paths and pleasant views. If such features could possibly foster new uses, various criticalities persist, primarily concerning the state of conservation of the built heritage and the overall accessibility of the single buildings and the entire settlement (fig. 22).

Despite the conciseness of the gathered data, the research allowed us to identify some peculiar features of the current state of conservation and the main degradation phenomena, as well as some challenges and potentials in case of future reuse initiatives. As will be explained further on<sup>54</sup>, the application of this expeditious method aimed at the identification of useful elements for defining reactivation potentials of the historical settlement of Ferruzzano Superiore, introducing evidence that serves as a starting point for reflections on possible strategies. In order to evaluate future directions for this heritage, especially considering such stratified contexts in a state of marginality and abandonment, the preliminary knowledge processes are crucial for orienting the recovery activities. This kind of investigation, supported by synthetic survey sheets, allows to quickly collect and compare a significant amount of information, offers high flexibility, and becomes widely effective in case of replicability. Moreover, considering the possibility of customising the filing structure according to the characteristics of the site and the objectives of the investigation, this method could reach an adequate level of knowledge of the built heritage. The aim of this part of the research is, in fact, to propose an approach that could be easily applied to other similar small historical centres, requiring a limited amount of fieldwork. In addition, the digitalisation of the collected data and their transformation into thematic maps foster the sharing of the results among scholars and stakeholders and facilitate the progressive update. Through the GIS model, in fact, the analyses conducted at the building scale could be effectively implemented and linked to data related to the urban and territorial level.

At the same time, the developed database can be connected with other existing platforms based on the GIS system, such as the Italian SIGECweb (General Information System of the Catalog), even though there is no direct correlation between the cataloguing methods tested and the scheduling models developed by the Central Institute for Cataloguing and Documentation (ICCD), entity of the Italian Ministry of Culture. As this research is oriented towards the conservation of non-listed heritage, understood not as isolated artifacts but as integrated historical built fabric, and therefore considered at the urban scale too, reference has not been made to the ICCD forms, although some terminologies have been adopted. The cataloguing model proposed here aims to delve into the

54. See SCAGLIA, VALIANTE in this volume, pp. 324-351.



Figure 22. Ferruzzano Superiore. Buildings in via Manin (photo C. Valiante, 2023).

details of building characteristics, considering them as part of a whole, which in turn connects to other levels of depth (local, supra-local, regional), that the developed platform attempts to synthesize<sup>55</sup>.

Even though this approach shows some limits, mainly regarding the data accuracy due to the synthetic structure of the survey and the requirement of basic knowledge of the future stakeholders for using the platform, the approach appeared to be consistent and helpful in understanding complex systems like the small historical centres at risk of abandonment.

55. Other cataloguing strategies for the conservation of small historical centres have been proposed by La Sapienza research groups, in coordination with the ICCD system. See FIORANI 2019; FIORANI *et al.* 2022.

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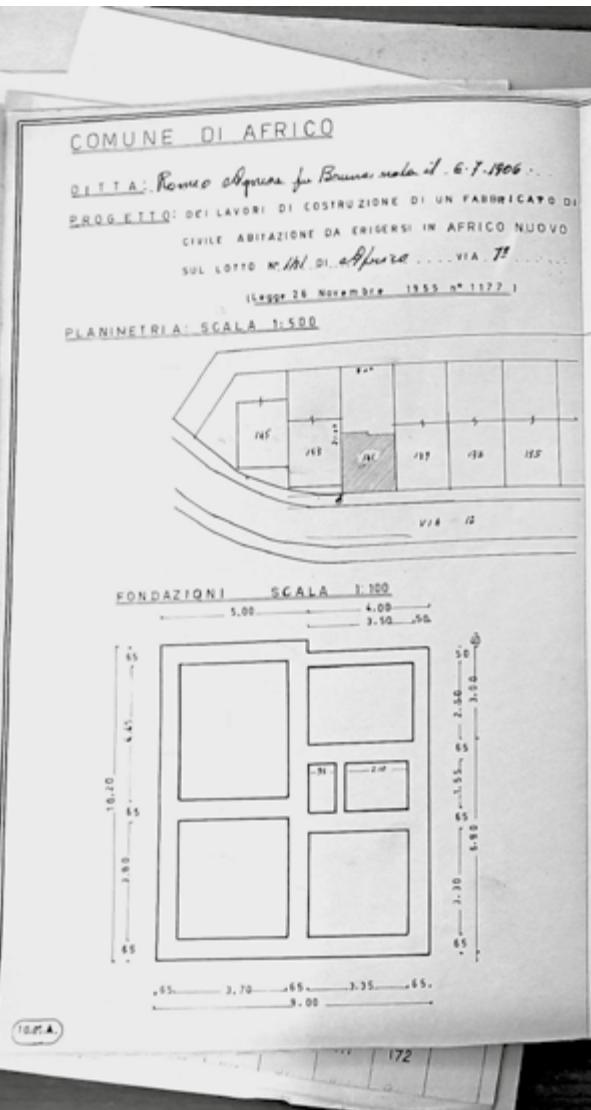
# LOST AND FOUND

Processes of abandonment of the architectural and urban heritage  
in inner areas. Causes, effects, and narratives (Italy, Albania, Romania)



Edited by Annunziata Maria Oteri

ArchHistoR  
EXTRA



## Appendice documentaria e metodologie di inventariazione digitale: il GIS come strumento di supporto per la conoscenza degli insediamenti storici

Morena Scaglia, Caterina Valiante (Politecnico di Milano)

*Il contributo presenta la modalità con cui sono stati raccolti, inventariati e messi in relazione i dati raccolti nel corso della ricerca. Uno degli obiettivi, infatti, è stato di raccogliere e far dialogare la quantità di dati di natura molto diversa collezionati durante le diverse fasi della ricerca. Il sistema Gis qui utilizzato ha incluso la raccolta di dati a diverse scale (architettonica, territoriale, sovralocale) e provenienti da diverse fonti (archivistiche, cartografiche, documentarie, demografiche), che sono stati interconnessi e georeferenziati con l'obiettivo di organizzare e presentare le informazioni riguardanti ogni comune o sito. In particolare, la piattaforma Gis sviluppata nel contesto della ricerca Lost and Found (RIBA 2021) mette in relazione la dimensione territoriale, con approfondimenti su scala comunale di alcuni casi studio identificati e li combina con una scala architettonica che si focalizza sul caso di Ferruzzano (Reggio Calabria), con approfondimenti sullo stato di conservazione del patrimonio edilizio. Questa piattaforma consente da un lato di elaborare dati georeferenziati a supporto delle riflessioni proposte e dall'altro di costruire uno strumento accessibile e fruibile, rivolto non solo ad altri ricercatori ma anche ad attori locali.*

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# Documentary Appendix and Digital Data Inventory Methodologies: the GIS as Supporting Tool for Knowledge Processes of Historical Settlements

Morena Scaglia, Caterina Valiante

Related to the Italian component of the research group, the general archive of the *Lost and Found* project contains materials collected on the case studies in Calabria.

There can be found parliamentary proceedings, archival material at the municipal, provincial and state levels, newspaper articles, historical bibliographic material, ISTAT data on the population of Calabria's inland centers, historical and current cartographies, photographic documentation obtained from surveys conducted by the team members, orthophotos, the survey sheets both in ygiene and and the GIS model.

The team members enriched the folder with materials useful for their own studies, obtaining a multidisciplinary and complex set of information for the benefit of the others, sharable with the practitioners and researchers as an implementable database for the managing and knowledge of Calabria's inner areas.

The documentary materials are organized in folders, whose content is now on described.

The Parliamentary Acts folder contains documents from the Chamber of Deputies, the Constituent Assembly and the Senate.

INSTITUTIONS	PERIOD	DOCUMENTS
Camera dei deputati	I Legislatura; 1948-1953	Proposta di legge per i bambini alluvionati del 1951-1952
		Legge per i territori montani del 1952
		Interventi
		Legge per i danni delle alluvioni del 1951
		Interrogazioni
		Discussioni
	II Legislatura; 1953-1958	Legge per la modifica della legge per i danni delle alluvioni del 1955
		Legge per la Calabria del 1955
		Interrogazioni
		Interventi
		Legge per i danni delle alluvioni del 1953
		Discussioni
Assemblea costituente		Interrogazione del deputato Eugenio Musolino sui tagli forestali in Calabria del 6 Novembre 1947
Senato	I Legislatura; 1948-1953	Interrogazioni
	II Legislatura; 1953-1958	Legge per la Calabria del 1955
		Legge per i danni delle alluvioni del 1953

In the folder with the documents from the Reggio Calabria State Archive can be found documents both from the Civil Engineering Office and the Prefecture, more precisely from the Provincial Office of Post-conflict Assistance.

REGGIO CALABRIA CIVIL ENGINEERING OFFICE	DOCUMENTS
Serie 1.3.26_busta 13_opere di trasferimento e consolidamento abitato Africo	<ul style="list-style-type: none"> <li>- A report of work on the completion of the sewerage master plan and internal water supply network in the township of Africo Nuovo</li> <li>- A supporting report accompanying the third progress report</li> <li>- the third progress report on such works</li> </ul>
Serie 1.3.26_busta 24_contratti privati Africo	<ul style="list-style-type: none"> <li>- Documents related to grants to private individuals for relocation of Africo township (plans, sections and elevations 1:100, metric calculations, technical reports, details of building practices)</li> </ul>
Serie 1.3.26_busta 32_trasf. Africo Nuovo	<ul style="list-style-type: none"> <li>- Documents related to grants to private individuals for relocation of Africo township (plans, sections and elevations 1:100, metric calculations, technical reports, details of building practices)</li> </ul>
Serie 1.3.26_busta 129_trasferimento di Ferruzzano	<ul style="list-style-type: none"> <li>- Information on the transfer of Ferruzzano</li> <li>- Report on the damages caused by the flooding of 1969</li> </ul>
Serie 1.3.26_busta 137_trasferimento abitato Canolo_nulla osta	<ul style="list-style-type: none"> <li>- Documents related to contributions to private individuals for relocation of Canolo Nuovo township (accompanied by 1:100 plans, 1:100 sections, metric calculations)</li> </ul>
Serie 1.3.26_busta 174_consolidamento abitato_Canolo_Africo nuovo	<ul style="list-style-type: none"> <li>- Africo Nuovo consolidation project (1:500 maps of Africo Nuovo, report)</li> <li>- Canolo consolidation project (1:1000 Canolo Vecchio and report)</li> </ul>

PREFECTURE OF REGGIO CALABRIA	DOCUMENTS
Alluvione, danni, profughi e assistenza dal 1951-1952 (Busta 10)	Preventivo di spesa
	Fascicolo 2
	Fascicolo 4
	Fascicolo 4_1
	Fascicolo 7
	Fascicolo 8
	Fascicolo 19
	Fascicolo 20
	Fascicolo 21
	Fascicolo 22
	Fascicolo 23
Problemi di Africo Nuovo del 1953-1959 (Busta 25) (Busta 29)	Fascicolo 138
	Fascicolo 139
	Fascicolo 155
	Fascicolo 156
	Fascicolo 157
	Fascicolo 158
Trasferimento e costruzione di Africo Nuovo del 1952-1953	Fascicolo 98
	Fascicolo 99
	Fascicolo 100
	Fascicolo 100_1
	Fascicolo 101
	Fascicolo 101_3
	Articoli di giornale
Donazioni ad Africo Nuovo del 1952-1954	Busta 19_Fascicolo 114
	Busta 24_Fascicolo 129

There are also materials from various series containing the following documents from Canolo and Bruzzano:

Archivio di Stato di Reggio Calabria, Prefettura Affari Generali, Inventario 24/1, foglio 350 n. 51
Archivio di Stato di Reggio Calabria, Prefettura Affari Generali, Inventario 24/1, foglio 350 n. 51. Anno 1908, Territorio della Nuova Bruzzano
Archivio di Stato di Reggio Calabria, Prefettura Affari Generali, Inventario 24/1, foglio 350 n. 51. Anno 1908, Baraccamento dopo il sisma
Anno 1908, Baraccamento dopo il sisma, Contrada Donn'Angela. Ricostruzione in 3D
Archivio di Stato di Reggio Calabria, Inventario 24/1, foglio 350. Schizzo planimetrico del baraccamento di Bruzzano Zeffirio dopo il terremoto, anno 1908
Archivio di Stato di Reggio Calabria, Prefettura Affari Speciali dei Comuni, Inventario 24/11, foglio 30 n. 26. Area della nuova Bruzzano. Anno 1908
Archivio di Stato di Reggio Calabria, Prefettura Affari Speciali dei Comuni, Inventario 24/11, foglio 30 n. 26. Anno 1908
Archivio di Stato di Reggio Calabria, Prefettura Affari Speciali dei Comuni, Inventario 24/11, foglio 30 n. 26. Anno 1908
Archivio di Stato di Reggio Calabria, Prefettura Affari Speciali dei Comuni, Inventario 24/11, foglio 30 n. 26. Anno 1908
Pianta catastale di Bruzzano Zeffirio, Anno 1957

In the newspapers folder there are several articles from the 1950s and few from the 1970s coming from the main Italian newspapers of the past century.

JOURNALS	DATES
Cronaca di Calabria (1952-1954)	Various articles
The Evening Star	10 <sup>th</sup> November 1951
	From 22 <sup>nd</sup> to 25 <sup>th</sup> October 1953
Rinascita (October and November 1953)	Various articles
L'Unità	21 <sup>st</sup> October 1951
	26 <sup>th</sup> October 1951
L'Unità	24 <sup>th</sup> November 1951
	1 <sup>st</sup> December 1951

JOURNALS	DATES
	4 <sup>th</sup> December 1951
	20 <sup>th</sup> December 1951
	23 <sup>rd</sup> December 1951
	24 <sup>th</sup> March 1952
	29 <sup>th</sup> March 1952
	18 <sup>th</sup> February 1954
	5 <sup>th</sup> November 1953
	9 <sup>th</sup> November 1953
	27 <sup>th</sup> November 1953
	10 <sup>th</sup> September 1955
	14 <sup>th</sup> March 1978
	20 <sup>th</sup> April 1978
La Stampa	17 <sup>th</sup> October 1951
	18 <sup>th</sup> October 1951
	From 21 <sup>st</sup> to 23 <sup>rd</sup> October 1951
	30 <sup>th</sup> October 1951
	4 <sup>th</sup> December 1951
	28 <sup>th</sup> March 1952
	From 23 <sup>rd</sup> to 30 <sup>th</sup> October 1953
	18 <sup>th</sup> February 1954
	18 <sup>th</sup> ygiene e 1955
	20 <sup>th</sup> September 1955
	6 <sup>th</sup> January 1973
	13 <sup>th</sup> March 1978
	14 <sup>th</sup> March 1978
Il Popolo	From 19 <sup>th</sup> to 21 <sup>st</sup> October 1951
	23 <sup>rd</sup> October 1951
	24 <sup>th</sup> October 1951

JOURNALS	DATES
	30 <sup>th</sup> October 1951
	11 <sup>th</sup> December 1951
	21 <sup>st</sup> December 1951
	22 <sup>nd</sup> December 1951
	27 <sup>th</sup> December 1951
	12 <sup>th</sup> January 1952
	23 <sup>rd</sup> March 1952
	25 <sup>th</sup> March 1952
	27 <sup>th</sup> March 1952
	From 23 <sup>rd</sup> to 25 <sup>th</sup> October 1953
Avanti	19 <sup>th</sup> October 1951
	23 <sup>rd</sup> October 1951
	25 <sup>th</sup> December 1951
	25 <sup>th</sup> June 1961
	12 <sup>th</sup> April 1978

In the literature folder the available materials have been organized according to three categories:

#### *Natural risks*

G. BOTTA, *Difesa del suolo e volontà politica. Inondazioni fluviali e frane in Italia (1945-1976)*, Franco Angeli, Milano 1977.

D. CARBONE-GRIO, *I terremoti di Calabria e Sicilia nel secolo XVIII*, R. Stab. Tipografico Comm. G. De Angelis e Figlio, Napoli 1885.

A. GALLO, *Lettere scritte da Andrea Gallo. Pelli Terremoti del 1783*, Messina 1793.

M. GARANO, C. ZOPPI (eds), *La valutazione ambientale strategica nella pianificazione territoriale. Nuove prospettive per la gestione delle trasformazioni urbanistiche*, Gangemi, Roma 2003.

O. PETRUCCI, A.A. PASQUA, *Historical Climatology of Storm Events in the Mediterranean: A Case Study of Damaging Hydrological Events in Calabria, Southern Italy*, in N. DIODATO, G. BELLOCCHI (eds), *Storminess and Environmental Change. Climate Forcing and Responses in the Mediterranean Region*, Springer, Berlin 2014, pp. 249-268.

O. PETRUCCI, A.A. PASQUA, M. POLEMIO, *Impact of Damaging Geo-Hydrogeological Events and Population Development in Calabria, Southern Italy*, in «Water», 2013, 5, pp. 1780-1796.

A.A. ROSSI, *Storia dei tremuoti di Calabria negli anni 1835 e 1836*, R. De Stefano e Soci, Napoli 1837.

G. VIVENZIO, *Istoria e teoria de' tremuoti in generale ed in particolare di quelli della Calabria e di Messina*, Stamperia Regale, Napoli 1783.

#### *Inner areas*

F. CAPANO, M.I. PASCARIELLO, M. VISONE (eds), *Delli Aspetti de Paesi. Vecchi e nuovi Media per l'Immagine del Paesaggio*, vol. II, *Rappresentazione, memoria, conservazione*, Federico II University Press, Napoli 2016.

A. CORTESE, *Il movimento migratorio in Calabria dall'Unificazione ai giorni nostri*, in «Rivista Calabrese di Storia del '900», 2015, 2, pp. 5-22.

L. GAMBI, *Dinamica degli insediamenti umani in Calabria fra il 1861 e il 1951*, in Atti del II congresso storico calabrese, «Nord e sud», 7, n.s., 7, August 1960, pp. 61-70.

G. MODAFFARI, *Per una geografia dell'area Greccanica: abbandono, sdoppiamento e musealizzazione dei centri interni*, in «Documenti Geografici», 2019, 2.

G. MODAFFARI, M.O. SQUILLACI, *Le aree interne come spazio di diversità e somiglianze: il caso dell'area Greccanica*, in G. MACCHI JÁNICA e A. PALUMBO (eds), *Territori spezzati*, CISGE - Centro Italiano per gli Studi Storico-Geografici, Roma 2019.

E. MUSOLINO, *A proposito di paesi alluvionati e trasferiti*, in AA. VV., *Cronache Meridionali*, nn. 1-12, Gaetano Macchiaroli Editore, Napoli 1958.

A.M. OTERI, N. SULFARO, *Lo spopolamento dei centri abitati calabresi: cause, processi, strategie per il patrimonio costruito. Il caso della Locride*, in G. MACCHI JÁNICA e A. PALUMBO (eds), *Territori spezzati*, CISGE – Centro Italiano per gli Studi Storico-Geografici, Roma 2019.

V. TETI, *Il senso dei luoghi. Memoria e storia dei paesi abbandonati*, Donzelli, Roma 2004.

V. TETI, *Il terremoto del 1908 in Calabria in una trama di abbandoni di "lunga durata"*, in G. BERTOLASO, E. BOSCHI, E. GUIDOBONI, G. VALENSISE (eds), *Il terremoto e il maremoto del 28 dicembre 1908: analisi sismologica, impatto, prospettive*, DPC-INGV, Roma-Bologna 2008.

V. TETI, *Quel che resta. L'Italia dei paesi, tra abbandoni e ritorni*, Donzelli, Roma 2017.

P. TINO, *Da centro a periferia. Popolazione e risorse dell'Appennino meridionale nei secoli XIX e XX*, in «Meridiana», 2002, 44.

U. ZANOTTI BIANCO, *Gli spostamenti di abitati dopo le alluvioni in Calabria*, in *Rapporto della Commissione Italiana di Studio sulle aree arretrate italiane*, Vol. 1, Atti del congresso internazionale di studio sul problema delle aree arretrate (Milano 10-15 ottobre 1954), Centro Nazionale di Prevenzione e Difesa Sociale, A. Giuffrè Editore, Milano 1954.

U. ZANOTTI BIANCO, *Lo spostamento dei centri abitati in Calabria*, in «Nord e Sud», 1954, 1, pp. 58-67.

#### *Local history*

T. BESOZZI, *Africa 1948. Troppo strette le strade per l'ombrellino aperto*, in AA. VV., *Almanacco della Calabria*, Cultura Calabrese, 1992.

A. BRANCIFORTI, *La memoria e il tempo. Storie di città morte: Gibellina, Salaparuta, Poggioreale, Montevago, Africa, Roghudi, Canolo*, Mapograf, Vibo Valentia 1987.

V. CATALDO, *Il Catasto onciario di Canolo (1742-1745)*, Arti Grafiche Edizioni, Ardore Marina 2007.

C. LAGANÀ, *Bruzzano Zeffirio. Genealogia di un popolo. Percorsi di ricerca e fonti per la storia*, Vol. 1, Franco Pancallo Editore, Locri 2015.

R. LE PERA, *Vita di San Leo e storia di Africo*, 1982.

B. PALAMARA, *Africo dalle origini ai nostri giorni*, Arti Grafiche Edizioni, Ardore Marina 2003.

G. PERRONE, *Ferruzzano. L'epilogo di un paese meridionale*, Franco Pancallo Editore, Locri 2007.

D. ROMEO, *Profilo storico di Canolo. Dalle origini al dopoguerra*, Arti Grafiche Edizioni, Ardore Marina 2007.

S. ANTAGATA, *Africo: tutti insieme disperatamente per un futuro che non ha prospettive*, in Itinerari calabresi, Rubbettino, Soveria Mannelli 1999.

M. SPINELLA, *Ferruzzano. Contributo per una ricostruzione storica*, Tipolitografia LA MODERNA, Siracusa 1996.

C. STAJANO, *Africo. Una cronaca italiana di governanti e governati, di mafia, di potere e di lotta*, Il Saggiatore, Milano 2015.

The data on inner areas folder comprises the maps of inner areas and small Italian municipalities in inner areas, in excel format.

The data on ISTAT census comprise the pdfs or excel files of the reports from 1861 to 2011 (excluding 1891 and 1941).

YEAR	DOCUMENTS
1861	Vol I
	Vol II
	Vol III
	Relazione
	Popolazione di diritto
1871	Vol I_ Popolazione presente ed assente per comuni, centri e frazioni di comune
	Vol II_ Popolazione per età, sesso, stato civile ed istruzione elementare
	Vol III_ Popolazione classificata per professioni
	Italiani all'estero
1871	Classificazione dei comuni del regno secondo la popolazione
1881	Circoscrizioni giudiziarie (Dati e Tavola)
	Vol I_ Popolazione dei comuni e dei mandamenti (parte 1)
	Vol I_ Popolazione dei comuni e dei mandamenti (parte 2)
	Vol II_ Popolazione classificata per età, sesso, stato civile e istruzione elementare
	Vol III_ Popolazione classificata per professioni o condizioni
	Censimento della popolazione_ Documento generale

YEAR	DOCUMENTS
	Sulla classificazione per età della popolazione del Regno
	Relazione generale, Tavole
	Dizionario dei Comuni del Regno e delle Frazioni
	Relazione generale
1901	Vol I_ Popolazione dei comuni e delle rispettive frazioni divisa in agglomerata e sparsa e popolazione dei mandamenti amministrativi
	Vol II_ Numero delle famiglie e numero degli abitanti classificati secondo la qualità della dimora, il luogo di nascita, il sesso, l'età, lo stato civile e l'istruzione (ciechi e sordo-muti), stranieri, lingue parlate
	Vol III_ Popolazione presente classificata per professioni o condizioni
	Vol IV_ Popolazione presente di ciascun compartimento e del Regno classificata per sesso, età e professione unica o principale. Professioni accessorie, lavoro a domicilio. Famiglie classificate secondo il numero dei componenti e secondo la professione del capo. Convivenze in alberghi, collegi, ospedali etc. Temporaneamente disoccupati. Proprietari di beni immobili. Religioni.
	Vol V_ Relazione sul metodo di esecuzione e sui risultati del censimento, raffrontati con quelli dei censimenti italiani precedenti e di censimenti esteri
	Numero dei mandamenti amministrativi dei comuni e delle frazioni di comune per superficie geografica
	Documento generale
	Classificazione delle professioni o condizioni
1911	Censimento degli opifici e delle imprese industriali (Volumi da I a V)
	Vol I_ Popolazione presente (di fatto), popolazione temporaneamente assente e popolazione residente (legale) – Assenti temporaneamente dalle rispettive famiglie, classificati secondo il luogo dov'erano alla data del censimento – Popolazione presente e popolazione residente dei mandamenti amministrativi – Variazioni avvenute nelle circoscrizioni amministrative posteriormente alla data del censimento
	Vol II_ Popolazione presente classificata per sesso, età, stato civile ed istruzione
	Vol III_ L'alfabetismo della popolazione presente
	Vol IV_ Popolazione presente, di età superiore a dieci anni, classificata per sesso e per professione o condizione (tav. VI)
	Vol V_ Popolazione presente, di età superiore a dieci anni, classificata per sesso e per professione o condizione (tav. VII)
	Vol VI_ Popolazione presente classificata secondo la religione – Popolazione presente classificata secondo il luogo di nascita – Proprietari di beni immobili – Ciechi – Sordomuti – Popolazione presente di età superiore a novanta anni – Stranieri – Famiglie – Convivenze non familiari

YEAR	DOCUMENTS
	Vol VII_ Relazione
	Dizionario dei comuni e delle frazioni di comune
1921	Relazione generale
	Calabria
1931	Vol III_ Fasc. 80_ Provincia di Reggio di Calabria
	Vol II_ Popolazione dei comuni e delle frazioni di censimento (elenco alfabetico dei comuni e delle frazioni di censimento)
	Vol II_ Popolazione dei comuni e delle frazioni di censimento (Italia centrale, meridionale e insulare)
	Indagine sulle abitazioni_ Parte seconda, tavole
	Vol II_ Popolazione dei comuni e delle frazioni di censimento (Italia settentrionale)
	Vol IV_ Relazione generale_ Parte seconda, tavole
	Vol I_ Relazione preliminare, Appendici
	Elenco dei comuni del Regno e loro popolazione residente e presente
	Vol VII_ Centri abitati
	Vol IV_ Relazione generale_ Parte prima, testo
	Indagine sulle abitazioni_ Parte prima, testo
1951	Vol VI_ Abitazioni
1951	Vol I_ Appendice B (Circoscrizioni ecclesiastiche)
	Vol I_ Appendice A (Dati riassuntivi provinciali)
	Vol II_ Famiglie e convivenze
	Vol VIII_ Atti del censimento
1951	Vol IV_ Professioni
	Popolazione legale dei comuni
	Vol II_ Dati generali riassuntivi
	Vol V_ Istruzione
	Vol I_ Fasc. 80_ Dati sommari per comune
	Vol III_ Sesso, età, stato civile, luogo di nascita
1961	Vol V_ Sesso, età, stato civile, luogo di nascita

YEAR	DOCUMENTS
	Vol X_ Atti del censimento
	Vol I_ Dati riassuntivi comunali e provinciali sulla popolazione e sulle abitazioni
	Popolazione legale dei comuni
	Vol IX_ Dati generali riassuntivi
	Vol III_ Fasc. 80_ Dati sommari per comune
	Vol III_ Appendice (Dati riassuntivi nazionali)
1971	Vol VIII_ Abitazioni (Tomo 2)
	Vol VI_ Professioni e attività economiche
	Vol IV_ Famiglie e convivenze
	Vol X_ Dati generali riassuntivi
	Vol IX_ Risultati degli spogli campionari (Tomo 1)
	Vol III_ Fasc. 18_ Popolazione delle frazioni geografiche e delle località abitate dei comuni (Calabria)
	Vol II_ Fasc. 82_ Dati per comune sulle caratteristiche strutturali della popolazione e delle abitazioni (Provincia di Reggio di Calabria)
	Vol VI_ Professioni e attività economiche (Tomo 2, Professioni)
	Vol II_ Dati per comune sulle caratteristiche strutturali della popolazione e delle abitazioni (Italia)
	Popolazione legale dei comuni
	Allegato 3: Questionari di rilevazione e modelli ausiliari
	Vol IX_ Risultati degli spogli campionari (Tomo 2)
	Vol XI_ Atti del censimento
	Vol VII_ Istruzione
	Vol III_ Popolazione delle frazioni geografiche e delle località abitate dei comuni (Italia)
	Vol I_ Primi risultati provinciali e comunali sulla popolazione e sulle abitazioni (dati provvisori)
1981	Vol I_ Primi risultati provinciali e comunali sulla popolazione e sulle abitazioni (dati provvisori)
	Popolazione legale dei comuni
	Disposizioni e istruzioni per gli organi periferici
	Piano di pubblicazione e di spoglio
	Vol III_ Popolazione delle frazioni geografiche e delle località abitate dei comuni

YEAR	DOCUMENTS
	Vol II_ Dati sulle caratteristiche strutturali della popolazione e delle abitazioni (Tomo 3, Italia)
	Vol V_ Relazione generale sul censimento
	Vol III_ Popolazione delle frazioni geografiche e delle località abitate dei comuni (Italia)
	Vol II_ Fasc. 80_ Dati sulle caratteristiche strutturali della popolazione e delle abitazioni (Tomo 1, Fascicoli provinciali_ Reggio di Calabria)
	Vol IV_ Atti del censimento
	Dati sulle caratteristiche strutturali della popolazione e delle abitazioni, campione al 2% dei fogli di famiglia (dati provvisori)
	Allegato 3: Questionari di rilevazione e modelli ausiliari
	Vol I_ Fasc. 18_ Dati sulle caratteristiche strutturali della popolazione e delle abitazioni (Tomo 2, Fascicoli regionali_ Calabria)
1991	I controlli di qualità: l'elaborazione dei dati
	Risultati provvisori provinciali e comunali sulla popolazione e sulle abitazioni
	Popolazione e abitazioni, Fascicolo nazionale Italia
	Popolazione e abitazioni, Fascicolo provinciale Reggio di Calabria
	La presenza straniera in Italia, una prima analisi dei dati censuari
	Popolazione legale
	Popolazione e abitazioni, Fascicolo regionale Calabria
2001	Popolazione residente comuni (xls)
	Popolazione residente provincia di Reggio Calabria (xls)
	Popolazione residente località abitate
2011	Calabria_Località (xls)
	Tracciato località (Formato csv)

There is a folder containing materials from all the intermediary presentation steps the project went through; a folder containing the maps of the war office 1943 (Messina e Badolato 1:250 000, Locri 1:100 000, Ardore 1:50 000, Bianco 1:50 000) and a print of a chasm formed by the 1783 earthquake near Oppido, in Calabria.

The GIS folder, where all the data present in the GIS model and in the Geoportale of Calabria region

can be found: the GIS base taken from the cadastral map, the population up to 2011 of all the small municipalities in Calabria, their height on the level of the sea, the altimetric classification, the data processed after the survey in Ferruzzano.

The folder concerning the built heritage contains the scans of all the forms filled in Ferruzzano divided for cadastral units with the related pictures subdivided by fronts, the blank form for further mappings, the cadastral pdf base with the analyzed comparts signed on, reference materials on Ferruzzano coming from the didactic experiences “Corso integrato di restauro” a.a. 2016/2017 and “Laboratorio di consolidamento dei centri storici” a.a. 2018/2019 held by Annunziata Maria Oteri at Università degli Studi Mediterranea di Reggio Calabria.

In the folder *Photos* can be found some historical pictures of Bruzzano Vecchio and the pictures of the surveys in Ferruzzano, Canolo, Canolo Nuovo, Bruzzano Zeffirio, Bruzzano Superiore, Africo Vecchio, Roghudi, Locri, Bova, Amendolea, Brancaleone.

The *Ortophoto* folder contains the ortophotos of Ferruzzano, Canolo Vecchia, Canolo Nuova, Bruzzano Zeffirio, Bruzzano Superiore.

From Bruzzano Zeffirio Municipal Archive can be found the “Programma di Fabbricazione” of 18 August 1981 together with the zoning panels in scale 1.5000, the “Regolamento edilizio” and some municipal resolutions on the new buildings to be built in the town (police station, middle school) and adjustments on the “Programma di Fabbricazione”.

There are also a 27 pages text by Orlando Sculli treating the history of the town, the historical and cultural values of Bruzzano Zeffirio territory, the Byzantine architecture of the Basilian Oratories near the Rocca d’Armenia, some preliminary analysis for the consolidation of the Castle of Rocca d’Armenia and the Triumphal Arch celebrating the Carafa family in Bruzzano Vecchio, and a panel with the Carafa Triumphal Arch taken from a degree thesis.

Canolo Municipal Archive is not inventoried, so no registry can be made for easy searching of materials.

Documents coming from various series and those contained in the folders on the transfer and consolidation of the inhabited centers of:

- Ferruzzano, Gerace, Canolo, Cardeto, Roghudi;
- Scilla, Vito (RC), Pazzano, Rosarno, Canolo, San Lorenzo, Bova, Gerace;
- Giffone, Acquaro, Vinco Pavigliana, S. Agata del Bianco, Bivongi, Monasterace, Cataforio, Canolo, Cinquefondi, Galatro.

These documents have been investigated for the finding of data related to the history of Canolo. The research team primarily possesses documents related to Canolo Nuova.

Two insights on different aspects in need of be further detailed for the richness of the materials collected and for their importance in the research project are now proposed:

- An excursus from the built heritage perspective on the case studies, as a first cognitive approach to understand the level of knowledge and confidence on the sites;
- The GIS process followed to ygiene enced the data gathered in the Calabria map and to obtain synthesis maps at different scales, presented as correct approach to exploit at best the potentialities of the tool.

#### *Sources re-reading for a preliminary approach to the case studies built environment*

From a literature base that interests all the small towns in Calabria and their processes of abandonment, more material has been collected for the centers in the province of Reggio Calabria, in the Locride region, on which the research team focused during the study: Bruzzano Zeffirio, Ferruzzano, Africo and Canolo.

Given the difficulty of gathering useful materials concerning the built heritage among all the available, a critical and reasoned selection was made of the cases of greatest interest including historical maps, updated orthophotos, available texts, photographs taken on site and archival documents, highlighting a general disregard of the historical heritage (fig. 1).

An excel file shared among the team members was set, with a sheet for every case study and the links to the most meaningful materials, to support the research and order the large amount of data at disposal. This program was chosen for being more familiar and manageable for the research group without losing the possibility of being easily imported in GIS in a later stage and create a unique database sharable with practitioners and scholars even outside of the research group.

At the bibliographic level, for some centers more notorious than others the literature found is abundant and rich even at the level of media resonance in newspapers (Africo, Canolo), while for others the reconstruction of historical events relies mostly on few local history books (Bruzzano Zeffirio, Ferruzzano). Concerning more specifically the built heritage though, little or no information can be found on the historical centers, as opposed to the relocation processes and on the new settlements planned after the natural disasters occurred in the past century.

BRUZZANO ZEFFIRO		BRUZZANO SUPERIORE
Ortomassie Articoli di giornale	<a href="#">Bruzzone, Ortomassie, M Avvenire, 20/07/2011, ROMA, 1952, 10-11-12, 1952, 10-11-12, 247, Edizione romana.pdf</a> 18/06/2014 22/07/2014	
Photographs	<a href="#">BruzzoneDefinito BRUZZANO_ZEFFIRO</a> Bruzzone	<a href="#">BruzzoneVeduta_Ortomassie,M BruzzoneVeduta BruzzoneVeduta, Soffrone</a> Foto d'epoca <a href="#">BruzzoneVeduta</a>
Archivio comunale di Bruzzano, Zeffiro	<p>Impegno spesa impianto area per costruzione Caserme Carabinieri</p> <p>Autorizzazione al Sindaco a recarsi a Roma per trattativa pratica ampiamento piano regolatore ed Ordine del giorno presentato dai consiglieri comunali (aggiornamento piano regolatore di Bruzzano)</p> <p>Ricchezza dell'area "Savaria" di Tivoli, Santi Pietro per la relazione progetto esecutivo e direzione lavori o-</p> <p>Richiesta di rigetto della delibera consolare a firma programma di fabbricazione</p> <p>Programma di fabbricazione: Regolamento edilizio</p> <p>Programma di fabbricazione: Relazione Norme di Attuazione Standard</p> <p>Programma di fabbricazione: Domicichine (Carte), scala 1:5000</p> <p>Avviso pubblico per la vendita con esclusione straordinaria</p> <p>Censo Diorio su Bruzzano</p> <p>Valenze Storiche e Culturali dei territori di Bruzzano Zeffiro</p> <p>L'antichissima Masseria degli Oretti Basiliari nei pressi della Rocca d'Armenia</p> <p>Analisi preventiva per il riqualificamento del Castello di Rocca d'Armenia e dell'area</p> <p>Archivio di Stato di Bruzzano Zeffiro</p> <p>Archivio di Stato di Bruzzano Zeffiro- Prefettura Affari Generali- Inventario 24/5- Regole 350 e 52</p> <p>Archivio di Stato di Reggio Calabria- Prefettura Affari Generali- Inventario 24/5- Regole 350 e 52, Anno 1908- Terreni della Nuova Bruzzano</p> <p>Archivio di Stato di Reggio Calabria- Prefettura Affari Generali- Inventario 24/5- Regole 350 e 52, Anno 1908- Barraccaimento dopo il terremoto</p> <p>Anno 1908- Barraccaimento dopo il terremoto- Comitato Donn'Angela, Ristrutturazione dei 10</p> <p>Archivio di Stato di Reggio Calabria- Prefettura Affari Speciali dei Comuni- Inventario 24/5- Regole 30-32, Anno 1908- Accertamento per il riconoscimento del funzionamento di Bruzzano Zeffiro dopo il terremoto, anno 1908</p> <p>Archivio di Stato di Reggio Calabria- Prefettura Affari Speciali dei Comuni- Inventario 24/5- Regole 30 e 26, Anno della nuova Bruzzano, Anno 1908</p> <p>Archivio di Stato di Reggio Calabria- Prefettura Affari Speciali dei Comuni- Inventario 24/5- Regole 30 e 26, Anno 1908</p> <p>Archivio di Stato di Reggio Calabria- Prefettura Affari Speciali dei Comuni- Inventario 24/5- Regole 30 e 26, Anno 1908</p> <p>Archivio di Stato di Reggio Calabria- Prefettura Affari Speciali dei Comuni- Inventario 24/5- Regole 30 e 26, Anno 1908</p> <p>Planta catastale di Bruzzano Zeffiro, Anno 1907</p> <p>Copertina del libro di Giovanni Legato "Bruzzone Zeffiro. Genealogie di un popolo"</p>	<p>12/06/1958 12/06/1958 12/06/1958 05/11/1948 14/12/1948 24/12/1948</p> <p>1961 <a href="#">1961_ProgrammaDiFabbricazione_RegolamentoEdilizio.pdf</a> 2003 2003 <a href="#">2003_ProgrammaDiFabbricazione_Zonazione.pdf</a> <a href="#">2003_Wimmelbenny_Memoria.pdf</a></p> <p><a href="#">BRUZZANO_ZEFFIRO_cenni_storici.pdf</a></p> <p>1961_7001,0% 1961_7002,0% 1961_7003,0% 1961_7004,0% 1961_7005,0% 1961_7006,0% 1961_7007,0% 1961_7008,0% 1961_7009,0% 1961_7010,0% 1961_7011,0% 1961_7012,0% 1961_7013,0% 1961_7014,0% 1961_7015,0% 1961_7016,0% 1961_7017,0% 1961_7018,0% 1961_7019,0% 1961_7020,0% 1961_7021,0% 1961_7022,0% 1961_7023,0% 1961_7024,0% 1961_7025,0% 1961_7026,0% 1961_7027,0% 1961_7028,0% 1961_7029,0% 1961_7030,0%</p>

Figure 1. Selection of materials on Bruzzano Superiore hamlet (elaboration by the authors).

Most of the material found on construction concerns, indeed, the new buildings, the permits and the bureaucratic issues related to the properties in the new centers but few details of the villages being dismissed emerge, relegated more to reports on the damages suffered by the buildings and their consequent uninhabitable status necessary to obtain funds for new houses.

No diagnostic documents concerning the territory and historical settlements have been found as well, testifying the lack of interest in understanding the consistency of the built heritage and its condition before the catastrophes; the lack of seismic and environmental records, for instance, results in the low level of readiness of the hamlets to face hazardous events.

Concerning the buildings characteristics, a general description of Locride building tradition reports

«Le case sono davvero minime: non sempre alte come un uomo, risultano costruite di ciottoli, assi e fango. All'interno non hanno forse mai conosciuto una mano di calce [...]. C'è un vano solo per tutte le necessità della famiglia [...]. Il pavimento è in terra battuta, le pareti coperte di nerofumo e fuligine [...]. Il quell'unica stanza dove si cucina, si inforna il pane e si dorme, stanno di notte il maiale o l'asino, la capra, le galline»<sup>1</sup>.

To dig into the case studies following an history-based approach, the archives of Africo and Canolo municipalities were consulted.

1. ADELFI 1955, p. 3.

Considering that the old center of Africo and its surrounding hamlet, Casalnuovo, were allowed to transfer after the flooding of 1951<sup>2</sup>, what was found are mostly reports and plans for the construction of Africo Nuovo, along with building practices and drawings of new dwellings.

The characters of the reconstruction strongly differ from the tradition, accustomed to stone buildings; the new ones were built mostly in C.A.<sup>3</sup>, with more than one room and an indoor bathroom, opposed as what frequently happened in the hometown.

The relocation episode offered the opportunity to improve the life quality standards experimented in Africo Vecchio, which the reporter Tommaso Besozzi stated to be tough and precarious in terms of hygiene: «Non c'è acqua, né luce elettrica [...]; le abitazioni, tolte pochissime, sono di un locale solo, e là vivono assieme uomini e bestie. Ad Africo esistono solo tre case provviste di latrina»<sup>4</sup> (fig. 2).

In Canolo there was a similar situation in terms of housing poverty and poor living conditions: «L'abitazione del contadino [...] consta di un solo vano a varie aperture, coperto di tegole, mentre la nuda terra ne forma il pavimento»<sup>5</sup>.

The moving of part of the hamlet in Canolo Nuova after the falling of a rock from the Trisimo mountain because of the flooding of 1951<sup>6</sup> offered a great possibility of change to Canolo homeless people (fig. 3).

Even though the incumbent rock overlooking Canolo threatened the town at least since 1915<sup>7</sup>, no documents on historical monitoring were found in the multiple visits to Canolo archive.

Those consultations, nevertheless, offered the possibility to collect plans for some new housing to be built in Canolo Nuova, its masterplan, the damage reports, the expropriations and the process that brought to the selection of the new center uppermost to the original one instead of lowermost as occurred for the other case studies and for many of the relocated small inner centers.

To sum up, the preliminary results obtained from the materials collected highlighted various degrees of incompleteness in the documentation at the team disposal, hence the on-site surveys

2. National Law, 10<sup>th</sup> January 1952, n. 9, *Provvidenze in favore delle zone disastrate dalle alluvioni e mareggiate dell'estate e dell'autunno 1951 in Calabria, Sicilia, Sardegna, Liguria, Piemonte, Lombardia, Veneto, Emilia, Toscana, nelle Puglie e in Campania*.

3. Prefettura di Reggio Calabria (PRC), Ufficio provinciale di assistenza post-bellica, *Trasferimento e costruzione di Africo Nuovo del 1952-1953*, Fascicolo 101

4. BESOZZI 1948, p. 53.

5. ROMEO 2007, p. 89.

6. *Un paese sconvolto* 1951, p. 1.

7. ROMEO 2007, p. 92.

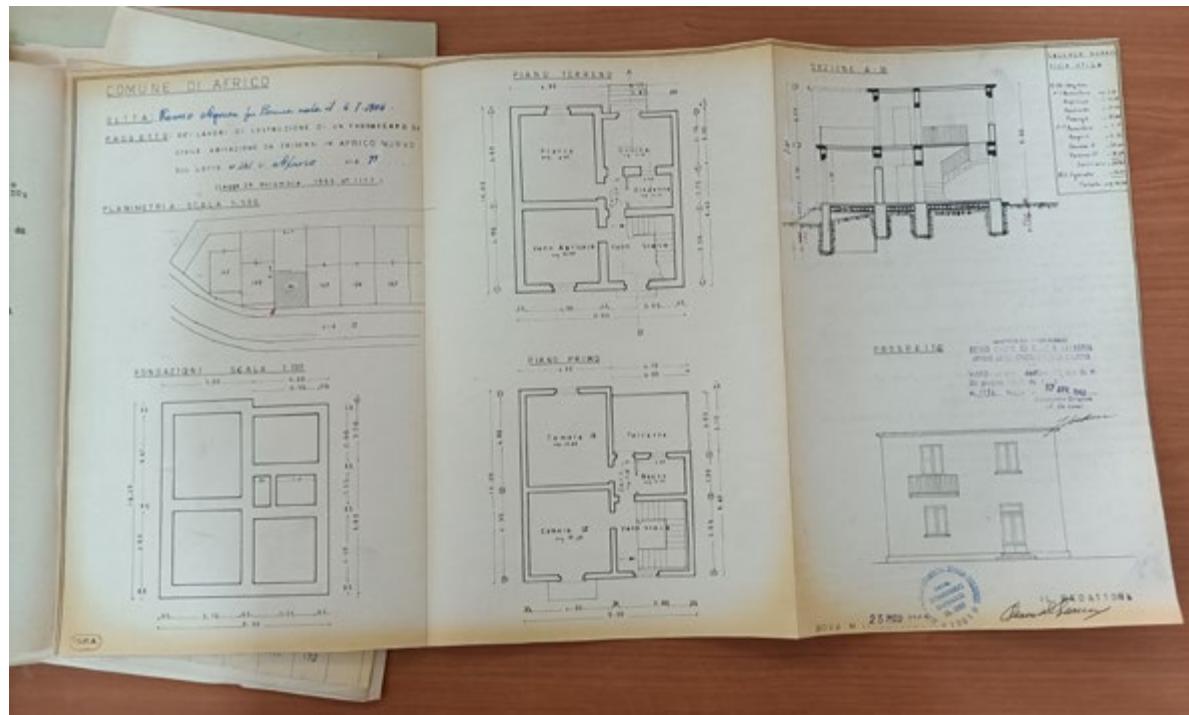


Figure 2. Housing project for a private to be realized in Africo Nuovo (Archivio di Stato di Reggio Calabria, Serie 1.3.26, Fascicolo 24, Contratti privati Africo, lotto 141).

emerged as necessary to complete the general knowledge framework and decide which case study could better embed a reactivation potential.

Even though neglected by the literature and available sources, the focus on the reactivation potential was chosen for Ferruzzano. This decision was made to bring attention to this town, as it is closer to services and better preserved than Bruzzano Zeffirio and Canolo, having been abandoned more recently.

## *Digital data inventory methodologies: the GIS as supporting tool for knowledge processes of historical settlements*

Over the past decades the potentials of the GIS tool's implementation in the field of architectural preservation, especially regarding the historical centres, and urban and territorial planning are widely acknowledged at national and international level<sup>8</sup>. Even in urban history, and in the historical research in general, the geographic information systems became an accepted method for mapping elaborations and databases of various and heterodox information, in order to discern historical patterns and relations that would be otherwise invisible<sup>9</sup>. In the RIBA research, which in fact is investigating history-based approaches for defining strategies addressed to abandoned small ancient settlements, the GIS tool was selected to provide a visual language that allows, through the georeferentiation, to organise, underline and link the spatial information of many different data, including historical maps and archival documents. These themes, particularly in the case of Calabria, are not widely investigated and rarely interconnected to the urban, architectural and social dimension. The objective of this part of the research is to highlight how, through the GIS tool, it is possible to integrate data relating to settlements and buildings with geographical, historical, territorial, and socio-economic data, not only as an organized, accessible, and interoperable digital archive, but also as a further tool of knowledge and support for future strategies and policies for such abandoned sites.

The methodology adopted for the inventory included the collection of data at different scales (architectural, territorial, supra-local) and coming from different sources (archival, cartographic, documentary, demographic), that were interlinked and georeferenced, aiming to organise and underline the information regarding each municipality or site. In particular, the GIS platform developed in the context of the RIBA research summarizes a territorial dimension, with insights on the municipal scale of some identified case studies and combines it with an architectural dimension declined on the case of Ferruzzano (Reggio Calabria), with insights into the state of conservation of the built heritage. This platform allows on the one hand to process georeferenced data to support the proposed reflections and on the other to build an accessible and usable tool, addressed not only to other researchers but also to local actors.

8. Among others, ACHILLE, BRUMANA 2004; AGAPIOU 2015; BARAZZETTI 2021; FIORANI 2019. For further details see SCAGLIA, VALIANTE in this volume, pp. 280-323.

9. DEBATS, GREGORY 2011, pp. 455-463; KNOWLES 2014, pp. 206-211. See also BODENHAMER *et al.* 2001; GORDON 2008; GREGORY, ELL 2008; HILLIER 2010; KNOWLES 2002, 2005, 2008, 2016; OWENS 2007.

At a territorial level, the inventory concerned the collection of data referred to twenty-eight municipalities located in the Reggio Calabria province<sup>10</sup>, selected as general study area of the research first stage. The classification made according to the physical and social marginality of each town, as stated by the Italian National Strategy for Inner Areas (SNAI)<sup>11</sup>, highlighted a diffused remoteness of the study area, which is characterised by a majority of peripheral conditions<sup>12</sup>. In fact, seven of these municipalities are also included in a pilot-area of the National Strategy, the *Grecanica area*<sup>13</sup>. In order to deepen the social structure and the marginality status of this context, some data regarding the demographic dynamics and the population growth rate were analysed too. According to the reports of the National Association of the Italian Municipalities (ANCI), in recent times (between 2011 and 2017) most of the investigated area is affected by depopulation trends<sup>14</sup>. Looking at the (de)population growth between the 1970 and 2020 this phenomenon appears even clearer, with severe negative rates in every municipality (between -13% and -77%). The examination of such data allows to understand and keep into account some basic features of the socio-economic context, which can be broaden and updated in time, according to the research objectives.

As mentioned, the GIS tool was meant to be used as a digital platform where to braid different kinds of data related to each town or site. Therefore, the references to the data collected through the archival research have been included into the GIS model, in order to link the spatial information to the documentary apparatus. In this manner the model allows to provide an organised digital database, that includes different kinds of information for each municipality, to other scholars that are approaching the topic, and local stakeholders for supporting decision making processes. Moreover, the digital format and the easily accessible platform, that can be published and shared online,

10. Africo, Bagaladi, Brancaleone, Bruzzano Zeffirio, Calanna, Canolo, Caraffa del Bianco, Careri, Casignana, Caulonia, Condofuri, Ferruzzano, Mammola, Maropati, Melicuccà, Oppido Mamertina, Palizzi, Roghudi, San Giovanni Gerace, San Lorenzo, San Roberto, Sant'Agata del Bianco, Sant'Eufemia d'Aspromonte, Sant'Ilario dello Ionio, Scido, Sinopoli, Staiti, Terranova Sappo Minulio.

11. This strategy classified the national territory into six levels of marginality regarding the accessibility to health, education, and mobility services (*A- polo intercomunale*, *B- polo*, *C- cintura*, *D- intermedio*, *E- periferico*, *F- ultraperiferico*). See BARCA, CASAVOLA, LUCATELLI 2014; LUCATELLI, LUISI 2018; LUCATELLI, LUISI, TANTILLO 2022.

12. The 80% of the selected municipalities is classified as peripheral by the SNAI.

13. Through the SNAI policy, 72 areas were selected and funded for fostering projects and initiatives for hindering the depopulation and social and economic marginalisation. For the Grecanica pilot area strategy, see <https://www.agenziacoesione.gov.it/strategia-nazionale-aree-interne/regione-calabria-aree-interne/grecanica/> (accessed 18 July 23).

14. See ANCI website: <https://www.anci.it/atlante-dei-piccoli-comuni/> (accessed 18 July 23).

facilitate the dissemination of such information and a wider comprehension of complex systems as the historical centres in marginal areas.

Municipality	SNAI classification	SNAI pilot area	Demographic dynamic	Pop. 1971	Pop. 2011	Pop. 2020	Growth rate 1971-2020	Growth rate 2011-2020
Africo	<i>C - cintura</i>	None	Negative trend	3481	3210	2791	-19,8%	-13,1%
Municipality	Archive_Cataloging		Archive_Folder code			Bibliografia		
Africo	ASRC, Prefettura RC, Ufficio Provinciale Assistenza Post-Bellica. ASRC, Genio Civile.		Prefettura: B.19-F.114, B.24-F.129. Genio Civile: Serie 1.3.26_174, 1.3.26_24, 1.3.26_32, 1.3.26_13.			Branciforti 1987; Besozzi 1992; Cortese, 2015; Gambi 1961; Modaffari, 2018; Modaffari, Squillaci 2021; Musolino 1968; Oteri, Sulfaro 2019; Palamara 2003; Santagata 1999; Stajano, 2015; Teti 2004; Teti 2008; Zanotti Bianco 1954.		

The investigation methodology comprised an implementation at a local level, precisely at the building scale, selecting the old settlement of Ferruzzano, with the goal to connect different dimensions in the same digital platform. The data collection, widely illustrated previously in this volume, concerned the architectural and urban features and the state of conservation of the built heritage, to realise a supporting tool for an adequate knowledge of the site. In this case, the georeferencing is made according to the cadastral unit, that still can dialogue with the municipality scale: in this manner, the digital platform includes both the territorial and architectural level, providing two different perspectives (figs. 4-6).

Even though the investigation was limited, and the data are non-comprehensive at various level, the results obtained from this systematization of various information is illustrative of a possible tool which, if broadened and further deepened, can lead to an extensive knowledge of these settlements and be usable by those who live, work and promote initiatives in the historical centres in inner areas.

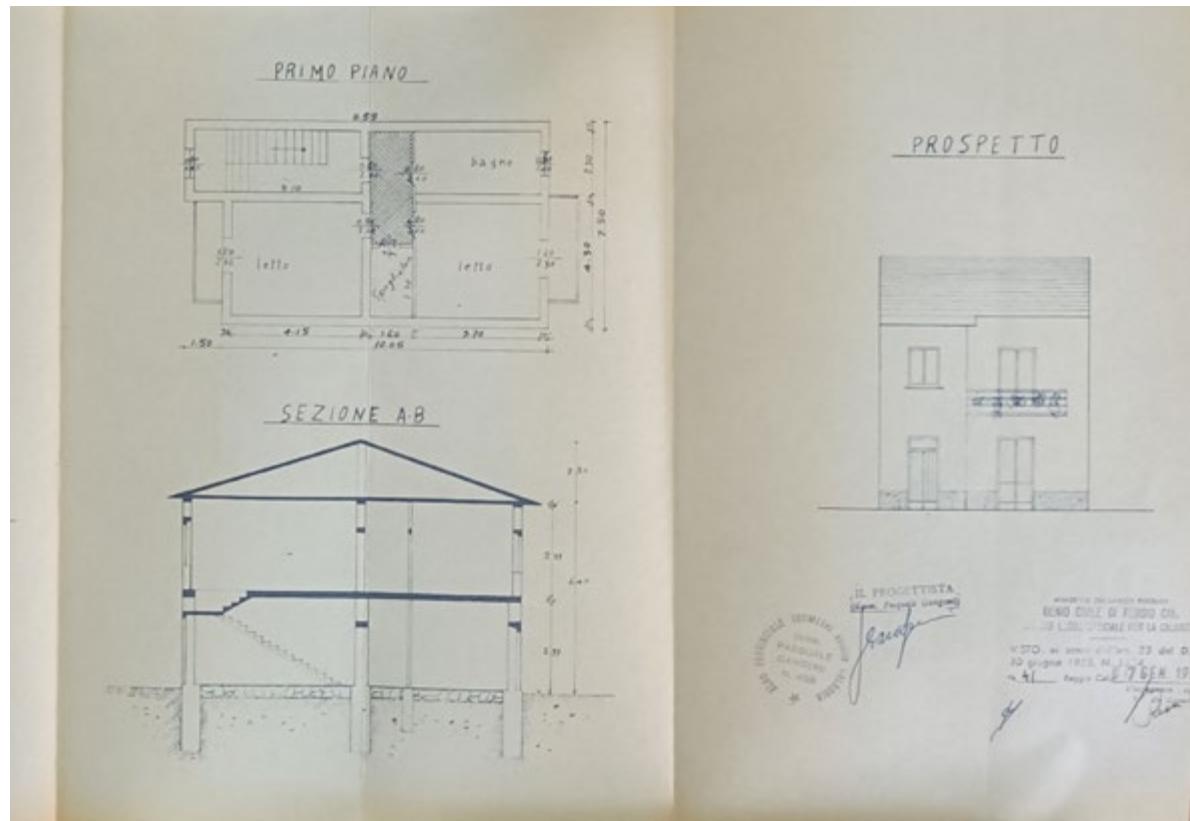


Figure 3. Housing project for a private to be realized in Canolo Nuova (Archivio di Stato di Reggio Calabria, Serie 1.3.26, Fascicolo 137, Trasferimento abitato Canolo, lotto 15).

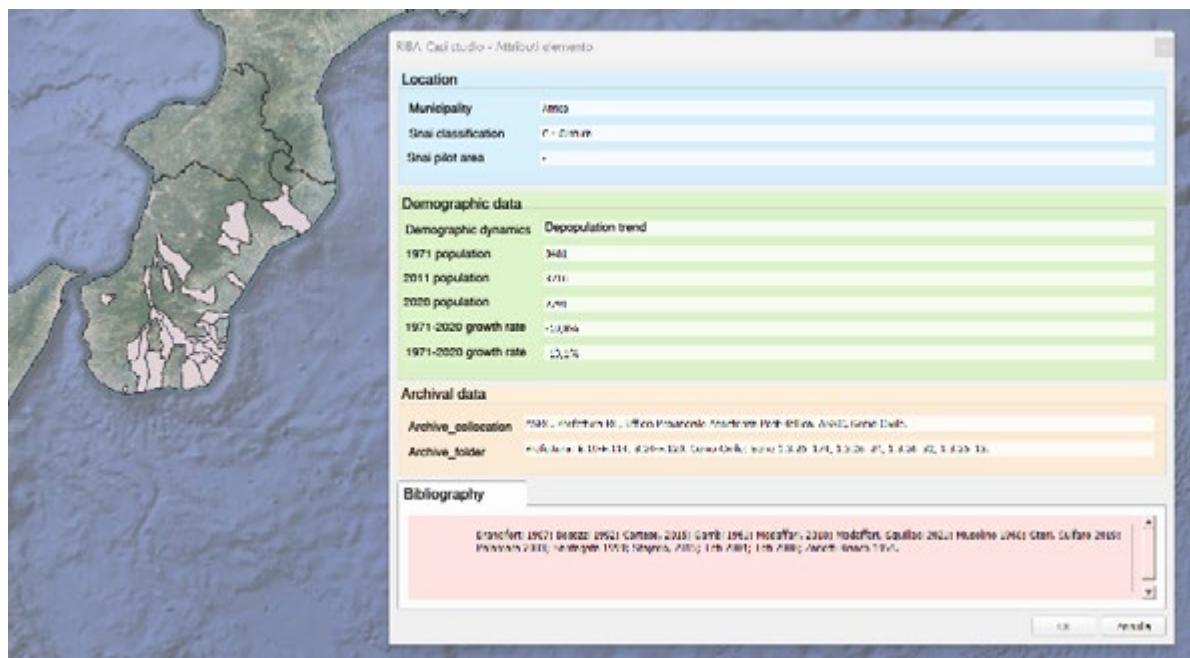




Figure 5. Ferruzzano Superiore. Base map (elaboration by the authors).

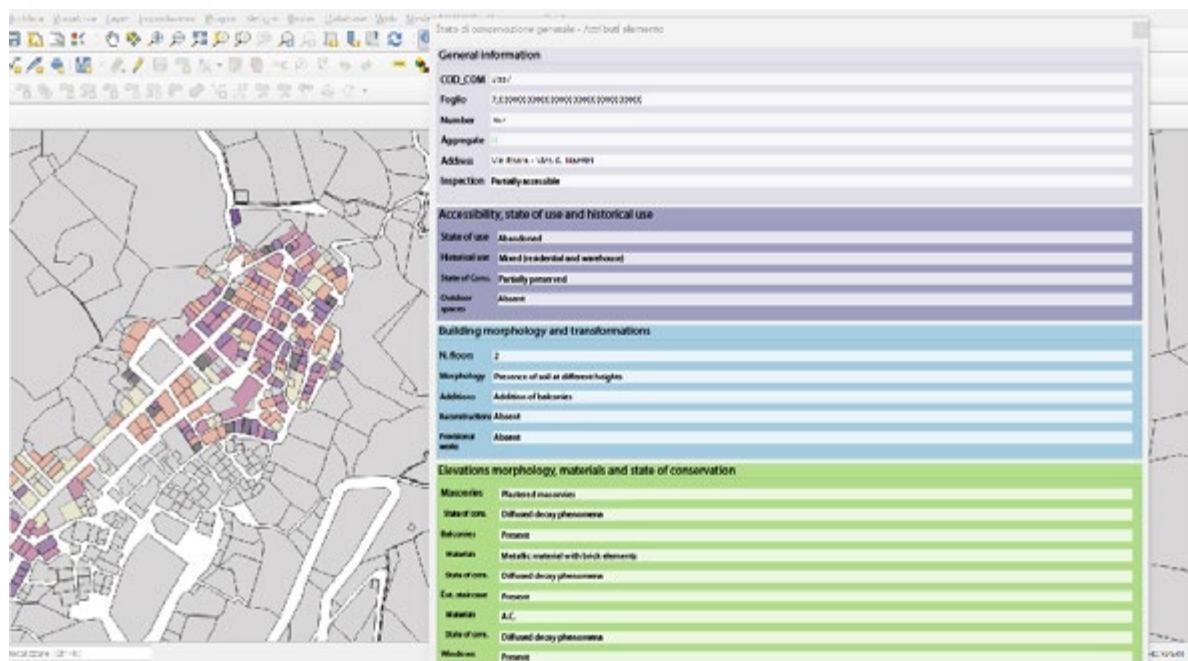


Figure 6. Example of the visualisation of a cadastral unit of Ferruzzano Superiore on the GIS model (elaboration by the authors).

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## NARRATIONS



# LOST AND FOUND

Processes of abandonment of the architectural and urban heritage  
in inner areas. Causes, effects, and narratives (Italy, Albania, Romania)



Edited by Annunziata Maria Oteri



## Frammenti di una sociologia dell'abbandono: il fantasma del borgo tra rovina e immaginario

Agostino Petrillo (Politecnico di Milano)

*La sociologia italiana, con poche eccezioni, ha a lungo trascurato il problema dell'abbandono dei villaggi rurali, per poi riscoprirla tardivamente negli ultimi anni. Le ragioni sono molteplici: da un lato, una tradizione sociologica interessata principalmente agli aspetti industriali e urbani delle trasformazioni del paese; dall'altro, una maggiore inclinazione della nostra sociologia a indagare gli aspetti economici e sociali della dissoluzione degli spazi rurali, a discapito di quelli culturali, lasciati principalmente a storici e antropologi. Da qui la scelta di analizzare alcuni di questi aspetti specifici e a lungo trascurati, cogliendoli nei villaggi studiati: la continuità delle memorie e il fantasma del passato, mettendo in luce le tracce e i simboli della "decontadinizzazione", per usare la terminologia di Pierre Bourdieu, raccontata dagli eredi. L'immaginario della campagna sta lentamente svanendo. Tuttavia, si manifesta nella persistenza della visione e nella costruzione collettiva di veri e propri monumenti involontari, che possono fungere da base per lo sfruttamento turistico ("turistificazione") e per gli sforzi di ripopolamento.*

# LOST AND FOUND

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# Fragment of a Sociology of Abandonment: the Ghost of the Village between Ruin and Imaginary

Agostino Petrillo

The fragments the title refers to are due to the fact that Italian sociology, aside from few notable instances, has long overlooked the question of the abandonment of rural villages within the country, aside from rediscovering it only in the past few years<sup>1</sup>. The reasons for this are numerous, on one hand there's the weight of a sociological tradition which having only developed after WWII was prevalently interested in industrial and urban aspects of the country's transformation, but on the other hand also a bigger propensity of our sociology to investigate the economic-social aspects of the dissolution of countryside spaces to the detriment of the cultural aspects more or less left to historians and anthropologists<sup>2</sup>.

In the years of the rapid industrialisation the village is judged as residual, a fragment of "yesterday's world", expression of backwardness and of an ambiguous overlap between personal ties and economic interests, an overlap which is often feared in the south, and considered dangerous in its implication of "amoral familism"<sup>3</sup>. A reality at the margins of the new urban civilisation, where

1. CARROSIO 2019; BARRERA, CERSOSIMO, DE ROSSI 2022. Interesting, isolated, and original approach is in TOSCANO 2011.

2. See the example quoted in CARROSIO, OSTIO 2017.

3. The reference is to BANFIELD 1976; for a critical reading see PIZZORINO 2001; MURASKIN 1974 and the more recent KERTZER 2007.

the ones who did not want to modernise stayed and stays, in which vain instances of conservatism were harboured. A dichotomic and tranchant view which both liquidated with an almost "colonial" glance complex<sup>4</sup>, secularly structured ways of life, pushing them aside while permitting sociologists self-absolution to divert attention away from villages, diversion which lasted a rather long time, at least up until the abandonment reached dramatic proportions.

From there on the choice of analysing some of these overlooked aspects, clearly too vast a topic to produce something more than small suggestions. The objective is however to try nonetheless to understand the surprising "persistence of the vision" in the heirs of that which had been the way of life of these villages.

### *1. A transversal methodology*

The objective of the in-depth study proposed here is the development of a methodology that cuts across different cases. The four villages we have traversed, Africo, Bruzzano, Canolo and Ferruzzano, with their marine "doubles," and on which we collectively reflect in this volume, can be understood as fields of cultural experimentation and instruments of knowledge configuration. Villages whose history is rooted in a remote past, sometimes very remote, as in the case of Canolo and Africo, dating back to an antiquity that is not easy to define, villages that were already present at the beginning of the 16<sup>th</sup> century, such as Bruzzano and Ferruzzano, and that shared similar fates from the 18th century onwards: earthquakes, in 1783 and 1905, floods, in 1951 and 1953, several times tenaciously rebuilt, then gradually abandoned<sup>5</sup>.

They represent physical and symbolic realities from and through which individual and collective images of self and community are not only created, but also become effective, operative. The question is how to make comprehensible and overt the durability of the ways of life that villages still disclose and identify the social repercussions of these patterns in their specific forms of enactment and production of imagery. To understand how to conceptually describe the area of transition and the interrelationships between remembrance, socio-spatial orientation, possible planning and perhaps, one day, landscape re-design. To this end, a conceptual differentiation can be made between village spaces by considering them "prefigured," "configured," and "refigured," to follow,

4. SCHNEIDER 1998.

5. BRANCIFORTI 1987; PERRONE 2007; PALAMARA 2003.

for example, Paul Ricœur's lesson on the memory of places<sup>6</sup>. The heir, the "posthumous" inhabitant, proceeds to a phantasmatic reconstruction of the lost village, "refigures" it, shapes an a posteriori image of it. But what is the meaning of these images? Is there a "collective memory of places", as Maurice Halbwachs suggested?<sup>7</sup> If the answer is an affirmative one, how is it built? And what does it tell us? To understand one must refer to other research traditions: in France sociologists and geographers such as Edgar Morin, André Fremont and Henri Mendras have explored village affairs and investigated the reasons for its residual vitality. They analysed social ties, hidden virtues, the less eye-catching freedoms and the endurance through time of cultured ties to it, survived even when "deep France" had to deal with modernity<sup>8</sup>.

## 2. *De-peasantification?*<sup>9</sup>

Beginning with an introductory reflection on the continuity of the ideal type of village in Italian and European history, as Max Weber had tried to circumscribe it<sup>10</sup>, seeing it as an inescapable node within a centuries-old network of territorial relations, as a decisive element of a substantial balance between town and village that lasted at least until the end of the Middle Ages, the essay therefore proposes to analyse, following Pierre Bourdieu, the cultural aspects of the processes of "de-peasantification" that went through the realities being analysed. A seemingly abrupt process in some cases, where, after natural events whose magnitude is often questioned (at least in *ex-post* re-evocations), deportations and the displacement of inhabitants occurred more or less hastily following governmental decrees and emergency measures. But, if the dislocation of populations marks an undoubtedly rupture from a material point of view, in reality "de-peasantification" takes place at a longer and slower pace than one might think, and not without conflict. The "abolition of the peasants" does not take place by decree alone, but by the action of a combination of forces<sup>11</sup>.

6. RICOEUR 2000, pp. 183-188.

7. HALBWACHS [1950] 2001; for a contemporary actualization and re-interpretation see NAMER 2000 and NAMER 2000a.

8. MORIN [1967] 1969; FRÈMONT 1981; MENDRAS 1992.

9. With the term "de-peasantification" we try to translate the French *de-paysannement* introduced by the sociologist Pierre Bourdieu.

10. WEBER [1921] 1999; On the relationship between *Dorf e Stadt* in the German sociology see also PETRILLO 2001.

11. The debate about "end of peasantry" is huge and dates back to the fifties: see in Germany, Lühr 1954, Steinführer 2015, in Italy see SERENI 1956.

In the sociologist's view, peasants have particularly complex relationships with their individual and collective identities, which go beyond the stereotypical figures of the dutiful peasant who talks about his life in elementary school subsidiary accent, or the rhetoric that attributes to the figure a timeless wisdom, linked to a cyclical conception of time and life. The complexity of the discourse regarding the villages that we have briefly analysed must instead be developed starting from the permanence and modification of a collective identity, also frequently played out in relation to the decisions that the urban bourgeoisie takes on the destiny of the inhabitants of the villages, with which an evident conflict destined to last over time is created, and also on the dynamic capacity of this identity to persist and re-propose itself, albeit in different forms. Bourdieu spoke of the peasantry as an object-class, in the sense of a social class that has undergone a process of dispossession, which has paid the price for its historical subordination to the urban bourgeoisie<sup>12</sup>. According to the French sociologist, the representations we have of the social world derive from a process of construction operating through individual or collective struggles during which social groups attempt to impose a vision conforming to their interests.

The peasant world is crushed in this dispute, and the rural/urban dichotomy is nothing but the result of a defeat, which has transformed the urban bourgeoisie into the dominant and the peasants into the dominated. Thus, other conceptual pairs such as the *Gemeinschaft/Gesellschaft* elaborated by Ferdinand Toennies in his classic work<sup>13</sup>, which photographed the end of a social and productive organisation that had had its fulcrum in the countryside, and with it also drew the sunset of a world of secular values and customs, should be read as the result of a historical defeat of the peasant world.

For Bourdieu, to do a social history or historical sociology is to question the genesis of these concepts, to understand why institutions came into existence to support them and why some worlds continued to exist while others died out. In such a perspective, so-called "de-peasantification" is a violent process, it is the definitive actualisation of a previous defeat. We could say that in Bourdieu's vision there are at least two models of this process: one is what the French sociologist can see at work in the countryside of the Béarn where he was originally from: a slow and insidious process of emptying the peasant world from within<sup>14</sup>. In particular, Bourdieu focuses on marriage strategies. The growth and spread of celibacy are cruel sign of the altering relationships between men and

12. BOURDIEU 1977.

13. TOENNIES [1887] 2011.

14. BOURDIEU 1977.

women and the countries the sociologist considers. The crisis of peasant society is rooted in a series of socio-economic determinants, but also in internal mechanisms, such as the prevalence of an urban imaginary whereby women come to no longer want local men as husbands. A defection of the feminine whereby even dance parties where encounters destined to lead to nuptials are steadily being deserted. The crisis of the peasant world is thus also a crisis of a universe of symbols, the product of a “symbolic violence” in which the imagery of the peasant world is annihilated.

However, there is also another, more radical model of “de-peasantification” analysed by Bourdieu: the military-colonial model put in place during the Algerian war of independence. In a book he wrote with Abdelmalek Sayad, the French sociologist analyses the mechanisms of *Déracinement*, or the brutal uprooting to which Algerian peasants are subjected<sup>15</sup>. They are transferred from their villages to new settlements, called *regroupements*, modular agglomerations partly taken from previous settlements, partly artificially created, inspired by a “morbid geometrism”, in which the peasant population is herded according to a completely uneven arrangement that has nothing to do with the organisation of spaces and ways of life of villages, whose symbolic order it disrupts. *Regroupement* is both functional planning and “social surgery”, purporting to be a moment of emancipation from the “pathological” archaism of colonised culture. It represents a sharp break precursor to emigration, first to the cities and then to France<sup>16</sup>. Deportation to *regroupements* is prelude to emigration, with a dynamic that closely resembles, albeit in a different context, what happened in the Calabrian villages examined. Here after the “administrative” relocation to new settlements, the migratory flow became virtually uninterrupted. Displacement or uprooting as Bourdieu puts it, triggers mechanisms of indifference to the location, further facilitating emigration.

### 3. Forms of lingering and insidiousness

What seems to transpire by gathering information of the new villages, in the “doubles” by the sea where most of the last survivors of the old mountain villages and their descendants live, is that in the abandonment the both of Bourdieu's “de-peasantification” models are at play: on the one hand, the fascination with urban life and the weakening of old social bonds, and on the other hand, the semi-colonial model of forced uprooting, with its aspects of engineering-administrative

15. BOURDIEU, SAYAD [1964] 2023.

16. PETRILLO 2010.

despotism, not devoid of political components as some inhabitants also recall. Africo vecchio's descendants cast doubts on the extent of the flood that led to the definitive displacement of the population, they remember unpalatable protests against the ruling authorities such as the one in 1945, in which the Carabinieri barracks were stormed and destroyed<sup>17</sup>, and they mention even more ancient battles, episodes of a never entirely forgotten "peasant radicalism"<sup>18</sup> that preceded the displacement to the sea. A radicalism which is all but episodic, as confirms the last living inhabitant of Ferruzzano Vecchio, Mister Cicco Talia, a sort of "custodian of collective memory" - especially political memory, such as the story of Giuseppe "Little Joe" Zangara, which he narrated to anthropologist Ettore Castagna<sup>19</sup>. Giuseppe, class of 1900 and inhabitant of the village until his emigration to the USA after having frequented socialist and libertarian circles and afterwards joining the Italo-American anarchist movement, was the protagonist of the failed assassination attempt on President Roosevelt for which he was executed by electric chair. These figures of "Mountain anarchism" emerge from a forgotten past<sup>20</sup>, but restore a village reality much more varies and multiform from what may be thought today; socially complex and animated by a strong community spirit. Even in instances in which the process of destruction of peasant roots seems inevitable due to the new conditions of settlement and organisation of living spaces which manifested for the population of the interested villages and the imaginary of the countryside seems to slowly fade while also continuing to persist over the urban one at intervals, even a long time after moving to these new inhabited realities.

It is not only a matter of direct transmission of festive traditions, food cultures and the relationship with the land. It is the "rural mind"<sup>21</sup> that in certain aspects survives, and in some cases even tends to perpetuate itself according to an intergenerational line<sup>22</sup>. This is something that is deeply ingrained in societies that have experienced displacement, a persistence of outlook that is not just regret and nostalgia, but rather identity continuity. The dissolution of imaginary of the peasant world occurs much slower than its material disappearance<sup>23</sup> (fig. 1). As if the trauma of forced detachment made it possible

17. This episode is mentioned in TETI 2004, p. 225.

18. The expression was introduced by Carlo Ginzburg; see GINZBURG 1976.

19. CASTAGNA 2023.

20. Other memories of "mountain anarchism" presence in Casalnuovo-Africo are in the autobiographic novel by Rocco Palamara; PALAMARA 2022.

21. The reference is to the classic work by SMITH 1927.

22. KAYSER 1990.

23. For this non-residual aspect see BÄTZING 2020.



Figure 1. Africo, Reggio Calabria. Ruins of the old settlement (photo A.M. Oteri, 2022).

to raise, to use Freudian lexicon, a *Reizschutz*<sup>24</sup>, a protective shield that protects and perpetuates memory: that draws that which is distant closer. The memory becomes a form of lingering<sup>25</sup>. Where other realities in the same areas are subject to a process (surely following and due to other causes) of depopulation and abandonment, “old villages” seem to linger much more tenaciously in memory.

#### 4. *The memory paradox: inhabiting the ruins*

This way the sense of time is preserved in absence. It is an artificially realised void in a sense, a kind of a cultural devotion aimed at the preservation of an identity whose parts are perpetually disintegrating. A local dimension “in search of lost time”, *à la recherche du temps perdu*, in which ruins enter the flow of time and orient it, become fixed points of reference. It is certainly astonishing to see the descendants of Africo's inhabitants, hours' walk from their current homes, moving with familiarity among the ruins that remain of what was once the town, reconstructing with devotion details, routes, historical stratifications, recalling revolts and riots belonging to their grandparents generation, just as they were handed down to them by their parents, insinuating doubts about what was the real dynamic of the events that led to the forced exodus. In Canolo, the former mayor takes us on a pilgrimage to one of the three collective ovens of the old village, naming the owners of the dilapidated houses one by one. Memories are Proustianally attached to places, to the ruins, and it is not only a matter of re-establishing a link with past forms of life, with its lost habits and customs, but also, as the anthropologist Ernesto de Martino recalled<sup>26</sup>, in some cases the challenge is to resurrect the dead, evoking them through places they lived, to make them appear in the form of a oniric image or ghost. The ghost of the village as a collectivity survives the material country in memory. In Ferruzzano Superiore, Ciccio's family survives, others occasionally spend time there. In Ferruzzano Marittima, an elderly woman explains to us while we are having coffee that during the summer, when many emigrants return, they go back to Ferruzzano Superiore to celebrate certain festivals, and as in the past, they put chairs outside the door to recreate a community public space. The houses are not open, she says, but lean almost outwards, people pass from one house to another, they stop to have a word, to eat something together.

24. FREUD 1977.

25. The translator chose “lingering” for the Italian term “restanza”. For the idea of “restanza” see TETI 2022.

26. DE MARTINO 1958.

## 5. Non-uments

With the term “non-uments” the artist and architect Gordon Matta-Clark indicated all those objects that are consecrated de-facto as monuments despite not being so deliberately or as a conscious choice. Matta-Clark wrote: «I mean everybody loves a ruin sometime [...]. I realize what a perfect vacuum is needed to preserve our sense of time. That is a manicured vacuum, a cultural devotion to maintaining the identity of constantly disintegrating parts»<sup>27</sup>. In an interview he further clarified the concept of a non-ument stating:

«One of my concerns here is with the Non.u.mental, that is, an expression of the commonplace that might counter the grandeur and pomp of architectural structures and their self-glorifying clients'. If the monument is about fixing a place in history by giving shape to memory and form to power, the non-u-ment is about a forsaking of power, a stepping outside of boundaries, and a release from the economic constraints of space»<sup>28</sup>.

Hence, the “non-ument” is situated on the slight boundary between architecture and ruin, continuously oscillating between these two conditions, it is a perpetually transitioning element, its survival tied in double knots to the memory and love of those who continue to give it life and distance it from its destiny of ruins.

In at least two of the studied villages, ruins gain this monument aspect, assuming near-devotional traits. The architectonic pre-existence continues to play a symbolic role of landmark/connection for the ‘no-longer-peasants’ of generations following the exodus; it is a ghost of the village as collective reanimating and revived by the contact with memory. The blown-up picture in the town hall of the new Africo depicting village women carrying water speaks clearly, narrating a sort of “lost childhood” lived on the boundary between the memories of strife and difficulties and the dimension of community now lacking and lived as a sort of nostalgia. It is a “identity collage” attempting reconstruction using fragments of memory jealously guarded, reactivating with this aim spaces of collective experience.

It is the same for Canolo, in which there is even a material spatial continuity between the old settlement and the new one, in which what had been practically around the corner, and in which depopulation dynamics manifest once again today even in the new settlement due to an occupational crisis and a crisis of the productive areas of the territory. The ruins of the old village overlap with the

27. G. MATTA-CLARK, *Letter to Dan Forrester*, 2 April 1972, quoted in DISERENS 2006, pp. 154-155.

28. D. WALL 1976.

remnants of long-shut local industries, becoming in a way a monument to an attempt and failure of rebirth, manifesting once again in the growth of uninhabited homes.

The local job market becoming asphyxial produces a sort of “endless escape” lived as a sort of collective damnation, reappearing generation to generation, and to which the small nucleus of remaining inhabitants tries once again tenaciously to avoid. The old village and the abandoned factories rise to a spectral “non-umentality” of sorts, a warning of a chain of defeats looking difficult to stop.

In Bruzzano Vecchio a monument does exist, and it is a proper one, here the presences are imposing between beautiful archways and the ruins of a noble family’s residence there are already structures that serve the role of modest touristic attractions, shining with their peculiar charm, placed the way that they are in an area of rare natural beauty (fig. 2). Here, too, the risk is that the “non-ument” stops serving its identity-related function and starts becoming a banal landmark, between the many feeding into a touristic “ruinism”, supporting hordes of occasional visitors and feeding the business of some small hotel nearby. The “non-ument” stripped of its aura and history is reduced to a mere object to insert on a tourist guide, devoid of pathos and connection to and for the collective.

## *6. Does Nature take over?*

Despite the strength or pre-existence in Bruzzano Vecchio the village in its entirety no longer belongs to men, who have withdrawn from it. The village turns back to nature, earth. A land of silence where only the wind and birds speak. The echo of past human presence can be heard only as an absence. In the new village, Bruzzano Zeffirio, memories of the past appear tied to singular happenstances, and in conversations a sense of distance stands out, the memory of a strife, a hard life, of steep mountain paths and of a long time of isolation. Here moving to the seaside effectively represented a radical shift, and “de-peasantification” appears a fact: done and dusted. As Canolo Nuovo, Bruzzano Zeffiro is depopulated, and it is mainly the elderly that now remain (fig. 3). Ferruzzano instead has a more recent taste of abandonment, as if the citizens only left not long ago. Here the feeling is that not much would be needed to repopulate: it would be enough to simply reconnect that which has been disconnected, creating transport lines, services, in a natural reality of astonishing beauty. Also due to the fact that as has been said already the memory of the old village is still alive and well within the inhabitants of Ferruzzano Marina. When during the summer those who have emigrated to Northern cities or even Australia and the US come back to the village the present and memories of old festivities intertwine, some even go up to visit the old village.



Figure 2. Bruzzano Vecchio, Reggio Calabria. View of the so-called "Triumphal arch of the Carafa (photo F. Vigotti, 2023). On the next page, figure 3. Bruzzano Zeffirio, Reggio Calabria. A glimpse of the "new" village (photo F. Vigotti, 2023).



There is a rebirth of what with his beautiful definition Amitav Gosh calls an “airport village”<sup>29</sup>, a place from which the migratory diaspora sprung citizens towards every corner of the earth, but to which its citizens long to come home to, a place in which nostalgia becomes a re-discoverable part of a collective identity.

The location of Africo vecchio, much more remote, in which the feeling of complete isolation is pervasive even from a natural geographical standpoint differentiates itself from the other villages. Africo is entirely submerged, swallowed up by an overpowering, dominant nature. On the other hand, in this whole area of Aspromonte there is a feeling of a slow descent, of being progressively further from the human presence. Even the region of Calabria loses inhabitants, but in these areas the sensation of emptiness is even stronger.

### *7. The village between abandonment, memory and re-population*

To understand what has transpired it is imperative to bring the village imagery back to the centre of sociological discourse. The images that were rediscovered and the symbols utilised in this context can be comprised and analysed in terms of narrative models too, in which different political, economic, social and historical contexts and situations are represented and questions or epistemology and different ways of life are characterised. There lies the key of possible future developments. To make a monument (“non-ument”?) out of the ruins? Re-inhabit the ruin itself? How? What is the price? A reflection on the ruinistic aspects of tourism is needed, which can already be seen, despite in its infancy, in some cases. And an evaluation of the positives and negatives of these aspects must be drawn. In which direction do future developments go? Is it possible to patch up relationships between the wilderness of abandonment and what is currently inhabited? Does it make sense to think of a future for these places in a region steadily losing inhabitants, in a declining area in which settlements seem more generally to continue leaving the mountains to head towards the coastlines? It is for this reason that a different set of guidelines is needed in order to re-inhabit the village: if Europe does intend to develop sustainably, then it is essential to redevelop urban-rural complementarities, which, as mentioned, had long existed throughout Europe’s history, articulating it in a new ways and in new forms, against the dominion of mono-structured and suburban landscapes, against the dominion of ‘non-places’, as re-evaluation of a

29. The quotation from *The Imam and the Indians* is in CLIFFORD 1997, pp. 1-2.

decentralised diversity, a rediscovered time for that which is local<sup>30</sup>. Something which actually does still exist in Europe and Italy, despite in a derelict and neglected manner. This means that cities must go back to being urban, and the countryside back to being rural, and the relationship between the two go back with being more equal. Patching up what was torn apart by “de-peasantification”, to work towards the direction of the “bioregion” dreamed up in the recently departed Alberto Magnaghi’s last works<sup>31</sup>.

To operate this apparently impossible recomposition, what better tool is there than memory, remembrance, to re embody and give back physical matter to ghosts. It was once again Magnaghi who stressed the importance of supporting a construction process, a reclamation from the bottom up of “locational conscience” by the inhabitant, pinpointing it as a key element to feed conviviality, life, and sustainable use of the territory’s resources (fig. 4). A key element also to activate local and regional self-sustained economies, without which any planning possibility in these areas becomes unthinkable.

#### *8. Conclusion: apories of recomposition*

In his great trilogy on the question of time, Paul Ricoeur denounced an irreducible split between “time of the world” and “time of the soul”, between cosmological temporality and time of the individual.

Time becomes fully and properly human time when it is retold, when it is articulated in a narrative manner. Thus, also for Architecture it is possible to establish a parallel between Architecture and narration, whereby Architecture stands to space as narration stands to time<sup>32</sup>. We find the truth of these considerations in the path taken so far. Certainly the “islands of the past” of which Maurice Halbwachs spoke<sup>33</sup>, and which in the realities we have taken into consideration often assume the dimension of a ghost, to underline a discontinuity, a historical caesura constituted by the process of de-contamination, re-emerge in the narrative, re-proposing elements of a life of bygone times in which the community dimension is mainly pursued.

30. BRAND 1998.

31. MAGNAGHI 2019; MAGNAGHI 2014.

32. RICOUER 1991, p. 17.

33. HALBWACHS [1950] 2001, p. 115.



Figure 4. Bruzzano Vecchio in 1920s (image courtesy of Carmelo Altomonte).

On the next page, figure 5.  
Ferruzzano, Reggio Calabria.  
View of the old depopulated village  
(photo N. Sulfaro, 2022).



The ghost thus also becomes a potential resource, an opening to the possibility of a new time in which the revival of the old villages takes place under the guise of mending the tear in memory and a rediscovered space of the collective (fig. 5). In fact, the “non-ument” exists not only in the collective feeling, as a materialisation of memory, but also in its architectural tangibility, and is still vital, revivable, usable with an eye towards the future, as Avery Gordon suggested in her seminal book<sup>34</sup>. We must, however, be wary of easy solutions and ad hoc constructed identity rhetoric, of the usual re-proposal of the hotel scattered as a cure-all and a solution to issues which, as we have seen, are much more complex, which go beyond the villages themselves, in their investment in the territory of the entire region and the entire country. There is therefore also the possibility of a misuse of memory, if it is used as a premise for a sham social construction, as an element in the activation of folkloric scenarios for tourist and commercial purposes.

An insufficient answer if the objective is that of reducing urban-rural disparities. The imbalances that have been created between urban networks and wilderness are not compatible with the idea of sustainability, and the extreme spatial contrasts that have been created tell us how damaging the absolute character of the economy and prevalence of low-grade commercial interests can be while the social, cultural, historical, and ecological prerequisites of local activities are being eroded. The result is social conflict, loss of cultural identity and growing environmental problems. The risk if no action is taken is therefore of oblivion, of the loss of what still survives after the disappearance of the peasant world, of the fading of the persistence of the traces in subsequent generations, perhaps masked behind the façade of some cunningly restored house offered to new upper-class residents. The design ideas must be developed now, while recomposition is still possible, before the era of phantasmic remembrance and “non-uments” is over for good.

34. GORDON 1997.

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# LOST AND FOUND

Processes of abandonment of the architectural and urban heritage  
in inner areas. Causes, effects, and narratives (Italy, Albania, Romania)



Edited by Annunziata Maria Oteri



Archistor  
EXTRA

## Territori dell'abbandono. Paesaggio, rovine e memorie in una prospettiva sociologica

Monica Musolino (Università degli Studi di Messina)

*Il saggio analizza il processo di spopolamento di due aree interne della Calabria causato dagli effetti di un disastro naturale e le modalità che hanno caratterizzato la ricostruzione dei centri abbandonati in altro sito. Inoltre, si indagano anche i complessi legami socio-identitari che si mantengono e modificano fra popolazioni e vecchi luoghi, secondo le dinamiche di ricostruzione memoriale a livello intergenerazionale. In particolare, i due casi studio selezionati riguardano i paesi di Canolo e Africo, entrambi raggiunti nel 1951 da un'alluvione. Questo evento produsse effetti disastrosi su questi insediamenti, provocandone l'abbandono e la conseguente ricostruzione ex novo in altro sito. In realtà, l'abbandono fu solo parziale per Canolo, che si divise fra una parte della popolazione che volle rimanere nel vecchio sito e un'altra parte che fu costretta a ricollocarsi più a monte, abitando nuove case e riorganizzando la vita sociale e domestica. Il trasferimento fu pressoché totale per Africo, la cui popolazione fu invece condotta in una porzione di territorio lungo la costa in netta discontinuità con la tipologia di ambiente e condizione di vita fino a quel momento sperimentate. Oggi i vecchi centri abbandonati sono oggetto di differenti interessi ad opera sia della popolazione che si è spostata nei nuovi insediamenti, sia di altri attori sociali che vi si accostano sotto varie forme e con diverse finalità. Da queste relazioni e tensioni fra interessi del presente e ricostruzione del passato si generano rappresentazioni memoriali plurime, che sono analizzate alla luce della categoria dei "paesaggi della memoria".*

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# Territories of Abandonment: Landscape, Ruins, and Memory from a Sociological Perspective

Monica Musolino

Territories of abandonment – i.e., uninhabited towns and villages reduced to ruins – are always linked to the history of a group, or rather, the procedural history of a community of inhabitants. These are histories that push or force such communities to leave their settlements for various reasons and at different rates of depopulation. Some of these reasons have a historical character, since, for example, they are linked to invasions or wars; others have a political character (persecutions, political opposition, etc.); still others are of a calamitous nature (earthquakes, floods, etc.), suddenly and unexpectedly bursting into collective life; in other cases, very long-term processes take place, which produce geographic and economic isolation so significant as to make associated life particularly difficult in some localities. Here, we will draw attention to findings relating to depopulation phenomena caused by natural events – specifically, the destruction following flooding – which preceded the depopulation processes of mountain areas in Italy. In particular, the two case studies analysed here are located in Calabria. These are the towns of Canolo and Africo, both in the province of Reggio Calabria, both of which were hit by a flood in 1951, which had a disastrous effect on these mountain settlements, causing their abandonment, partial for Canolo and almost total for Africo, with the consequent reconstruction *ex novo* on another site<sup>1</sup>. Today, these centres are the object of

1. See MUSOLINO 2012.

various kinds of interest, both among the population that moved to the new settlements that arose after the flood, and by successive generations of their children, but also among other social actors, who approach them in various forms and with different aims.

Why, then, does an abandoned centre arouse interest and curiosity, even becoming the subject of planning (social, cultural, architectural, restoration, etc.), beyond the common rhetoric of nostalgia? What is the socio-historical crux, the issue around which the movement of this return ferments and revolves? In many ways, which we will try to define in more detail within the essay, the central question is located in the memorial relationship between the abandoned place and the community of inhabitants, understood not only in relation to those who actually lived there, but also in relation to those who inhabit that place and that past in narrative forms, even though they have only come to know it as a result of destruction and abandonment. One can, in this way, consider such a place, its ruins first and foremost, as an extensive trace of the collective and individual past of those who lived there, the tangible physical sign of their memory and identity construction. And it is this place thus defined in terms of the landscape of memory that over time becomes the centre of rotation of memorial practices oriented towards the interests of the present.

### *Ruins and collective memory*

The expression "territories of abandonment" can in many ways be misleading and should therefore be clarified, since in a sociological sense abandonment does not refer exclusively to physical depopulation, but rather to a kind of termination of the affective bond with a place. Abandonment is deeply connected with the dynamics of memorial relations, which bind communities or groups to their places. This is evidently also true for those who, belonging to different generations from the original inhabitants, continue to inhabit the place in the story and memory of their parents or ancestors. Thus, it even occurs that entire generations can dwell in that place only in memory and narrative<sup>2</sup>, even though they have never seen it in person. This condition is given by a fundamental fact on which the social dynamic of collective memory hinges: this, as well as the very possibility of remembering, both on the part of the individual and collectively, derives from persistent and constant adherence to a group. It is precisely dwelling in a group that makes it possible to generate living memory even on the individual level, since the latter shares a past, a history, with all the other members, in which he/she recognises aspects, events, decipherable traces on which all those

2. On storytelling as dwelling, as a "practice embedded in social relations", see JEDŁOSWSKI 2009.

meet who, like him/her, inhabit that past in relation to that group. Halbwachs makes it clear that a testimony will only remind us of something if some trace of the event to which it refers has remained in our minds. However, this does not mean that the memory of that event, or even a part of it, must remain with us exactly as it took place, but rather that we have somehow remained in contact with the group that experienced it together with us. And this is possible because we were part of it and had in common with it a certain way of thinking, so much so that in the present this allows us to still recognise ourselves in that group and confuse our past with its<sup>3</sup>.

The valuable lesson of Halbwachs tells us clearly that this link with a group's past, as deep as it is delicate and dynamic, makes possible the construction of a shared memory that also structures individual memory. In fact, there is no individual memory except in relation to the memory of one or more reference groups, up to the social construction of a public memory<sup>4</sup>. The definition of a shared memory, collective in the broadest sense, also makes possible the structuring of an identity, again collective and individual, the two dimensions being inseparable from each other. And one of probably the most significant and profound, albeit sometimes elusive and finely balanced, memorial and identity relationships is precisely that between inhabitants and place.

On this point, it is necessary to clarify what is meant here by the identity relationship between inhabitant and place, immediately referring to Heideggerian thought on this issue. According to Martin Heidegger, the manifestation and root of dwelling, which he identifies with man's existential condition, can be found in the act of building proper and caring for what exists. Indeed, it is precisely in this transformative action - *Buan* - that man generates the places in which his mortal being is realised, on earth and under the sky, his being<sup>5</sup>, the very condition of his identity. Therefore, the creation of a place - *Ort* - is an act of translation and transformation of the environment by a community, which spatialises, in this way, its own character, making it visible to itself and to the Other. This action, as mentioned, takes the form of the act of transforming what already exists in nature (agriculture), but also in the architectural and urban, as well as artistic, products of the inhabited place. The latter, in their overall articulation, connote that place in a unique and irreducible way with respect to another,

3. HALBWACHS 1997, pp. 55-56.

4. Public memory is the product of that memorial construction which, through various stratifications, extends beyond a restricted community and becomes a heritage of memories for a wider society, which thus elects its own founding places as testimonies of its past (e.g., the founding places of a nation, as in NORA 1997). On the processes of public memory construction see also AFFUSO 2010.

5. On what it is to inhabit a place, see HEIDEGGER 2007.

so that its particular character is to some extent collectively recognisable, without being confined to the condition of a mere object of interpretation, varying according to subjective sensitivity<sup>6</sup>. What is of most interest here concerns the relationship of care that is established between inhabitants and place and makes their identity relationship solid. But this practice also allows the overcoming of the idea that indicates in the natives, and only in them, the possibility of establishing an identity relationship with the place. According to landscape geo-philosopher Luisa Bonesio, the cultural construction of the relationship between community and place today no longer necessarily concerns the natives, but rather an elective community, whose subjects may in part also have different geographical and cultural origins, but who choose to inhabit a place by "taking care of it"<sup>17</sup>. On the same wavelength, the geographer Daniela Poli insists on the relationship of care as a transformative and therefore an identity practice in relation to place:

«In the contemporary world, place does not exist naturally [...], the practice of care and knowledge of place totally disrupts the alternation between insiders and outsiders. [...] The insiders (those who have lived in a place for a long time) can be delocalised, i.e. they may not enter into any cognitive and active relationship that brings into play the values of representativeness and symbolic value, while the outsiders (those who come from outside) can advantageously interpret the local potential. [...] The place today exists only where it is cared for, regardless of the type of ownership to which it is subjected: it is not the insiders and outsiders who own the place, but only those who care for it, those who re-recognise it as their own, those who continually safeguard it and revive it, whether inside or outside the settled community»<sup>8</sup>.

This excerpt is central because it highlights how the selective mechanisms on which the practice of caring for a place hinge are analogous to those that characterise the processes of memory, which move according to the memory/oblivion polarity. It is worth dwelling on this point in order to understand how the practices of collective memory construction and those of care, placed in relation to a place, move along the same lines. Again, according to Halbwachs, the past, in its multiplicity and vast articulation of events, is subjected by each group and each society to a process of selection and reconstruction, which will generate as many collective memories. This is evidently due to the impossibility of retaining and remembering everything that has happened, which would, moreover, be unspeakable. But then, what is remembered? What are

6. On this see also: SIMMEL 2006, p. 64; NORBERG-SCHULZ 1981, pp. 50-78; 1982, p. 45.

7. « No longer a "given" (taken for granted?) that nails one to birth, or condemns, today place becomes, in a world where the desert of non-places dramatically prevails, a *destination* to strive for, a space of meaning that must be regained through a care and awareness that is often difficult to reawaken», BONESIO 2007, pp. 201-202 (translation by the author).

8. POLI 2000, p. 208 (translation by the author).

the mechanisms that make it possible to select the relevant events of the past and indicate which memories carry weight, have relatively more significance, and which less? Quite simply, these mechanisms are guided by the interests of that group in the present<sup>9</sup>. However, as Paolo Jedlowski (2002) emphasises, this process of reconstruction lends itself to the risk of arbitrariness and is therefore bound to encounter limits set by the past itself: on the one hand, there must be a trace, that a certain significance of certain facts of the past remains with the community; and, on the other hand, it is the very plurality of collective memories within a society that generates a sort of mutual reconciliation, albeit sometimes with conflicting outcomes. It is precisely this permanence of traces in the present that makes it possible not only to curb the arbitrariness of reconstruction, which can even lead in the direction of negation, but also to continue to influence the present: that is to say, the past is somehow not yet past, in the sense of its distance, and therefore a break with what happened and what was, but in a certain way it passes through and remains in the present, albeit transformed. This is also a typical characteristic of memory: bringing the past to life in the present. One could say that it is by analogy what happens with the practices of place care: in fact, communities of inhabitants also necessarily operate a selection of elements and traces sedimented in the territory through registers and interests grounded in the present, thus revitalising in a new form what has already existed for some time.

This perspective, therefore, reinforces our interpretative proposal, according to which the abandonment of a place occurs when the relationship of care, which is also manifested in its memorial construction, fails. Even more so if memory and care relate to the physical traces of a place's collective past, i.e. its ruins. These assume a central role since, as stated above, it is the traces of the past that set a limit to the reconstructions of memory, but at the same time also orient them as permanencies of the past itself.

9. Halbwachs' thoughts on collective memory are presented by Jedlowski in some general terms: «They can be summarised in three positions: 1) individual memory is always also collective memory [...] 2) memory (individual and collective) represents the continuity of the past in the present only on the condition that the images of the past are subjected to a constant work of selection, synthesis and reconstruction that moves from the interests of the present; 3) memory is a factor of identity - both at the individual and collective level - but it is also its expression: the present identity, in other words, expresses itself in certain interpretations of the past, which tend to be congruent with it, from which it draws strength». JEDŁOWSKI 2002, p. 52 (translation by the author).

### *Ruins: the place where the aura of the past dwells*

A simple question, rhetorical as it may seem, opens up this second issue: how can a place reduced to a pile of ruins be so important to those who lived there and, sometimes, even to generations who never lived there? How is it possible that ruins not only manifest feelings of nostalgia and pain, but have a much more complex collective role? How is a positive impulse towards the past possible from such remnants, particularly if they are connected to recent and dramatic events, to destruction and forced abandonment, as in the cases we are dealing with? All this is possible, in a first and rough approximation, because ruins are the form that the memory of a community's past has taken. In other words, the abandoned place, made up of the rubble of the buildings, streets and squares that existed before the disastrous event, often takes on a sacred character in the collective representation. As will be explored later, the sacredness of the ruins also emerges in the narratives of the interviewees from Canolo and, above all, Africo: in effect, they become spatio-temporal points of reference for the narration of their own history, their own past and therefore their own identity. All the more so, because it was a disastrous event that drove them to abandonment (fig. 1).

On the other hand, even among scholars who have investigated the places and dynamics of memorial processes, this recognition of the sacred character of ruins is markedly present: in particular, Aleida Assmann points to ruins as places of memory. The scholar takes up the concept of aura formulated by Benjamin with reference to the work of art and the change that the experience of the latter goes through with the introduction of the serial production related to the capitalist system also in the field of art (painting, theatre, etc.). For Benjamin, therefore, what is missing from the work of art in the age of its technical reproducibility is the *hic et nunc* of its fruition, or rather, of its experience, that inseparability and irreproducibility of its space-time dimension, which is taken away from it, for example, with the serial reproductions of its image: the aura is a singular interweaving of space and time, the «unrepeatable appearance of a distance however close it may be»<sup>10</sup>. It is the aura, precisely, that leaves the work of art, thus in turn allowing art to become a commodity. Assmann, in taking up this interpretative category, highlights how places of memory, such as ruins, tombstones and graves, are signs. In other words, ruins, as signs, make up a presence that refers to a remoteness, to the unapproachability of the past, precisely because they continue to maintain an aura: «An auratic place [...] does not promise an unmediated experience; it is, rather, a place where the unbridgeable gap between present and past can be experienced. The place of memory is indeed

10. BENJAMIN 2000, p. 49.



Figure 1. Africo Vecchio,  
Reggio Calabria (photo A.M  
Oteri, 2022).

a "strange tissue of space and time", weaving sensual presence and historical absence together»<sup>11</sup>. In other words, it is the history of a population or a social group that is sensitively evoked, in the hic of the place, which acquires for this very reason its sacred character. Ruins, therefore, are among the most important examples and manifestations of this, as they are themselves the form of this unresolvable estrangement between past and present. This is, therefore, the first founding element onto which the possibility of reconstructing that feeling of re-appropriation of collective history, which is manifested in the action of care, is grafted.

#### *Ruins as a trace to build a landscape of memory in the present*

Ruins have a further socio-semiotic connotation, which makes them extremely important in communicating a historical continuity between past and present: they become an enormous trace. By trace, precisely according to the socio-semiotic perspective, we mean that imprint produced on a place by an event or an action and becoming a sign following its recognition<sup>12</sup>. In this conception of the trace as sign proposed by Umberto Eco, one finds part of the reflections just developed, according to another analytical perspective, about ruins. Indeed, here the ruins take on a character of transit between past and present by virtue of the fact that their meaning, as a physical and visible sign, is shared and recognised by one or more groups who approach them. And this is possible, in cases relating to abandoned places, because of the capacity to continue to remember, to maintain the memory, at least in part common, of the group's past, renewing it in various forms. If a recognition of the sign-vein persists and is alive, this is due precisely to the permanence of a memorial relationship with the place and with the group that continues to inhabit in the narratives, and within these in the affective relationship with that place and that group: in this type of affective memory, in fact, a part of collective and individual identities continues to be structured in a dynamic way.

How, then, to "treat" the ruins, in the light of what is considered overall in these pages? How to approach this delicate relationship made up of memories, but also of oblivion, of composite meanings, also in relation to the different generations and types of inhabitants taking part in the process of their vivification? For the social science approach that we are concerned with here, one can only start from the narratives that the original inhabitants themselves, together with the

11. ASSMANN 2011, pp. 322-323.

12. Eco 1975, p. 289; VIOLI 2014, pp. 90-92.

generations of their children ("postmemory")<sup>13</sup>, offer to the researcher who wants to decipher at least in part that process of recognition of the trace constituted by the ruins themselves, as already mentioned. In other words, what was attempted in the sociological research was precisely a process of decoding the meaning that structures the complex memorial and identity relationship between the inhabitants and the abandoned place, by means of the narratives provided by the interviewees.

*Africo and Canolo: the construction of two different landscapes of memory.*

Before reconstructing the Africesi and Canolesi narratives in relation to the place of abandonment, it is useful to review briefly what happened to the two Locride villages in the early 1950s.

Africo and Canolo are two municipalities in the province of Reggio Calabria (figs. 2-3), united by the fact that their reconstruction was carried out following the same destructive event: a massive flood that caused considerable damage in 1951. Apart from this triggering event and the attention that Umberto Zanotti Bianco dedicated to these territories, the reconstruction paths of the two Locride centres proceeded in very different directions. The Africesi, who lived in the mountains in a difficult and harsh territory, were driven along the coast, where the new centre was built, immediately connected to the main communication routes and "civilisation", although this move along the coast was decisive, not only for the general change in the socio-economic structure, but also the change in the identity of the population<sup>14</sup>. New Canolo, on the other hand, was built within its own municipal territory, but even higher up, about 9 km from old Canolo (where some of the inhabitants also wished to remain), with a view to preserving a line of continuity with their way of life, their traditions and their main activities.

The research on memorial processes has focused on the use of a fundamental investigative tool: the collection of narrative interviews on the model of life stories<sup>15</sup> with members of the current political-administrative and socio-cultural elite, as well as witnesses of the destructive event and the subsequent reconstruction, since it is obviously no longer possible to trace those who took part in the decision-making processes of the era, which is now too far back in time. It is, therefore, through

13. Postmemory means, according to Hirsh, the generations of children or descendants who, despite not having experienced the events, traumas and places of their ancestors, elaborate memorial paths through narratives, stories or other cultural products, HIRSH 2012.

14. STAJANO 1979.

15. BERTAUX 1999, BICHI 2007.



Figure 2. Africo Vecchio,  
Reggio Calabria (photo A.M.  
Oteri 2022).



Figure 3. Canolo, Reggio Calabria (photo S. Pistidda, 2022).

the words of the interviewees themselves that we want to reconstruct here at least a corner of that landscape of memory that, with necessarily different results and strategies, but with the same logic of care that animates the dimension of living, Africesi and Canolesi have realised despite the disaster and abandonment.

The Africesi, after decades of substantial estrangement from the old town, and also because of the difficulties of access due to road conditions, express a relationship of care and therefore of identity bond clearly more oriented to the old town than to the new one. In particular, the devotion to Saint Leo is recalled several times during the interviews as a moment and dimension of belonging for the community of inhabitants, in relation to old Africo. G. M., former mayor of new Africo, recounts it this way:

There is a lot of devotion, a lot of devotion. Every 5 May we go to the mountains, we have a shrine in honour of Saint Leo and we spend the day, we combine the useful, the religious and the pleasant, the festive outing, that's it. But it keeps us together. Young people, too, are attached to Saint Leo. [...] It prescinds from everything and everyone. We all come together behind Saint Leo, here<sup>16</sup>.

As is also evident from the words just quoted, this symbolic figure that builds around it a strong bond of identification of the Africo community is closely linked to the old village, to which, thanks to some cleaning work in recent years, especially by the Forestry Corps and volunteer associations, people return in large numbers, particularly on the feast of the saint. The attention paid to old Africo, also manifested in past years by the Aspromonte National Park, which has built an access gate in collaboration with the municipality, is an expression of an eagerness to rediscover a place - however mythologised and no longer intended for settlement - of identity foundation. Many frequent old Africo during the year, they often reach it, to see the places of their childhood and the traces of a memory, which restores a sense of identification even in the younger generations. This is how P. describes it:

Now for a few years, it seems to me that they are trying to go back to their roots, at least for those who want to, these young people, even us older ones. I didn't see the 'earthquake' either. They go there and look, maybe the daughter sees where her father used to be and vice versa, schools go there, people from that area [...] People come from all over, from the University of Reggio Calabria, they've come from the faculty of architecture, they've come several times and they've made several rounds. I mean, they are places that were suggestive, people like them. Of course, people who have suffered, not so much, but those who come for a specific reason like it, it's living nature, there's not much of it<sup>17</sup>.

16. Interview done in new Africo, 30<sup>th</sup> April 2012.

17. Interview done in new Africo, 30<sup>th</sup> April 2012.

And F. also confirms the care that is being shown towards the old, abandoned village:

It's clean now, as much as they cleaned most of it last year, so you can get there easily. I went as far as the house where I was born, I mean. They cleaned all those little streets, all clean. In front of the church there was a stone floor, they cleaned it all up... these are suggestive things, the village has remained virgin at the origin, as it was at the origin, I mean, there has been no change. There, as it used to be, it is, they just cleaned the houses, that's all. [...] At the Cozi, where Saint Leo used to do his penances, where he used to go to pray, which is a suggestive place. When my daughter saw it, she was enchanted, it's suggestive, it's something really suggestive, wonderful, I mean, for those who love nature in a certain way [...] and from there you can see the whole sea, when the ships go by, you can see everything [...] These are difficult places to get to, but for scholars like yourselves, it's really worth going. [...] But then we often find ourselves in the village, I mean, because we have our sanctuary, for us Saint Leo is our protector, the protector of Africo, they went yesterday, for example, to clean the church<sup>18</sup>.

From the narrative excerpts just reported, it is clear how, alongside the ethno-religious element, that of the character of a landscape is also strongly identifiable: the uncontaminated nature, the panorama, the evocative dimension, not only for those who have roots in that countryside, but objectively - the interviewees seem to say - also for those who have an interest in nature, emerge as values to be cared for and preserved through an action of care and enhancement. These are the main elements that, in their overall dynamism, define a landscape of memory for old Africo - i.e., a spatialised narrative and the object of representation by different social groups, who each build their own imprint on it. Thus, old Africo, simply cleaned up, resurfaces in all its beauty, despite the abandonment and ruins, or perhaps because of them. For these reasons, we can affirm that the construction of the Africesi identity keeps the old place as its fulcrum, especially through the feast linked to Saint Leo, and reworks this reference into the awareness of a rare landscape and natural heritage to be offered also to the outside world. One of the most interesting elements of the process of selection and memorial elaboration of the inhabitants of Africo with respect to the old village consists in a kind of conscious mythologisation of it. The old inhabitants, who were children at the time of the flood, remember very vividly the living conditions and isolation in which they found themselves and from which the displacement effectively freed them. However, they have built up a collective and individual memory of the bond with that place/landscape as a founding feature of their identity, decoupling that meaning from what the new village has assumed for them as a community of inhabitants. This is identified with the place of comfort, of civilised living conditions, of inclusion in a society that allows widespread access to education and communications. And this is undoubtedly as desirable as it could have been for a population in conditions of great hardship, but

18. Interview done in new Africo, 30<sup>th</sup> April 2012.

the mythicised beauty of the country of origin still remains as an identity trait, having to make up for what the new landscape and the new place could not so far offer.

Very different considerations must be made, however, with regard to Canolo (fig. 4), due to the fact that the old town centre has not been completely abandoned and the headquarters of some important municipal institutions, such as the schools, are still there. On the other hand, although there is a certain amount of conflict between the inhabitants of the historic centre and those of the new post-flood settlement, there has been a desire to maintain continuity with the ancient traditional practices, among which the most identifiable is bread-making. In fact, bread-making in Canolo is a practice that undoubtedly had its origin in necessity, since, understandably, in a peasant population bread is the first food needed. But bread-making takes on such importance here that it becomes a family and even community practice. And so, what structure could have been more important for maintaining this daily identity and community practice than the bakery oven? That oven was present in many homes in the old centre and became a communal oven – at the beginning, four communal ovens were installed – in the new settlement. This made it possible in the immediate future to maintain that continuity of the basic practices of daily life, which could allow the unity of the relocated population to be maintained, as attested by P.:

We have six communal ovens, which is perhaps the only commune in Calabria, because I've been to conferences, even at a professional level, to go around, to talk, to meet a lot of people, 'Do you really have communal ovens?' So, for example, here I have the receipt book: whoever wants to come, books, pays me 2.50 euro. But then it's not a tax, you pay for what? It is a tax for the management of the oven, the light bulb, the light, and also to regularise use. That is, because once in the years... this happened until 1985, before the delegation was made, before it was four ovens, a family had the key. Depending on the area, one family had it. But what happened? That if I had the need or my mother had the need to go to the bakery, what would happen? A daughter would pass by, then the other daughter, then the other daughter, and she would say 'But do you need the bakery by tomorrow? By the day after tomorrow do you need it?' So, the local authority, to remove this habit, what did it do? It picked up all the keys, and said 'the municipality manages the service', that is, I'm not interested, Giuseppe comes and says 'I need the oven tomorrow', I look at the diary, if it's free I sign it. [...] Then, following the construction of the housing, what happened? There were plots of land behind the houses - which were then sold - so whoever had the opportunity to build a garage, an appurtenance, something (because the families consisted of many members), many people built the oven. Because here it is still customary, for example, during the Easter festivities each family is used to making cakes with its own hands, the 'sgute', the famous 'sgute', cakes they are, you (aka the inhabitants of Messina) call them 'cuddura', but that is the cake. [...] In old Canolo, everyone had their own bakery, but when this village was built, the practice was maintained. [...] So there has been continuity, at first with the communal bakeries because at first there were four, now for 10-12 years or maybe more, in any case there are six. But everyone who had the opportunity - we have it



Figure 4. Canolo, Reggio Calabria (photo S. Pistidda, 2022).

at home, don't we? - everyone who had the opportunity did it. Of course, not every family, because you can't make an oven in a house like this, but those who had the chance to buy the land did. So, the tradition is still maintained<sup>19</sup>.

With respect to the baking tradition, S. L., former mayor of Canolo, also emphasises the relevance of these simple structures, which enable the maintenance of shared practices and a community-type bond:

We have to say the truth that there used to be this tradition in the old town, where there were neighbourhood bakeries, they were bakeries that, for example, I had the space and I had made the bakery, but my neighbour would make the bread at home and then come and bake it in my oven. So there was, as there is everywhere. So there was this culture. Precisely because of the fact of the buildings, which were not suitable for the mountains, they had no woodshed, the spaces outside were immense and beautiful, and still remain so. So there were these inconveniences. And so from here... it was also a culture that carried over. So there was a demand for... and the mayor at the time actually built the community ovens. We call them the communal ovens, the Municipality's ovens, which are used and maintained by the Municipality, and just to have a rule, they are brought... But the tradition is not only to make one's own bread, but to make bread within the family and friends. Today I make the bread, but for eight days I always ate fresh bread because then she made it, the aunt made it, the relative made it, and so it was passed around, and this is still the case today. For example, when the yeast was made, there were two or three people who kept the yeast, so I needed to make bread, I would go to Rosina, just to give her a name, Teresina was the lady who kept the yeast, and even today, now she's dead, now I think there's always someone who keeps the yeast and then I need it and I go there, get the yeast and then bring it back fresh, and so there's always fresh yeast going around to make bread. And as the yeast turns, so does the fresh bread for these families, for everyday use. So you always have fresh bread<sup>20</sup>.

This very light and simple intervention, from the point of view of construction, nevertheless made it possible to weave a web of continuity in the life of the community of inhabitants. What is even more relevant, although still related to the practice of bread-making, is once again the relationship with the mountain landscape. Indeed, the Canolesi, in 1951, faced with the urgency and necessity of moving to rebuild the town, which had been banned in the first place, steered firmly towards a choice that maintained the link with the mountain. Admittedly, the mountain of Canolo Nuovo is even colder and more difficult than that known in the old town, but the practices of pastoralism had already allowed them to weave over time a solid bond with that environment and landscape, thus enabling, at least from this point of view, a less traumatic transition for those who finally moved there. The bond was further strengthened, developing in other directions and practices, and today, despite the ambivalence that often connotes the inhabitants' relationship with isolated places, far from urban plots and even difficult to connect to the virtual world, the affection for the mountain

19. Interview done in Canolo Nuovo, 24<sup>th</sup> March 2012.

20. Interview done in Reggio Calabria, 27<sup>th</sup> April 2012.

landscape and the opportunities it offers especially in childhood, and then undoubtedly more limiting in the period of youth and beyond, is felt:

I'm very happy here, I lived my adolescence very well, but then when you start to grow up you begin to understand... I mean, you miss things, so you have to go down to Siderno or other places, travel a lot of kilometres, come back late at night, and you can't do that every night. [...] I like my mountains so much, I have this passion for hunting and fishing that when winter comes I'm always around, when the mushrooms come out [...] I mean, for me it's great to go to these places. Then, the family, of course. [...] When the mushrooms come out, for me it's really a passion to go and look for them, to be in the mountains, alone, because I enjoy going alone, then sometimes with my father, if not, and I have this passion. Then there's hunting, for example, that is, when it's time you go fishing, there's the stream and you go fishing, even if you couldn't, though!<sup>21</sup>.

Even for M., 30, having lived his childhood and adolescence in Canolo had a formative value, a light-heartedness and freedom that is neither comparable to nor possible for those living in an urban area:

In my opinion, a place like Canolo is an ideal place for the first years up to adolescence, because you don't have those constraints that you have in the city [...] I remember, when I was a child, you would go out to play in the meadows, in the square, in any case you lived in this protected condition, you knew that you were protected from those risks that can be in the city. So for me, until I was 16 or 17 years old, until I got my driving license, it was nice to live here, because it's surrounded by a series of attractions and you used to go to the lake to fish, you used to go to pick oregano, then to go mushrooming, but you have fun because you go there with your friends and you feel free, you feel [...] you have fun, basically<sup>22</sup>.

Thus, a landscape of memory is drawn in this place, perhaps a little hidden from the quick glance of an outsider.

### *The relationship between memory, identity and foreignness*

And it is precisely on the role of the "outsider" and his gaze that we would like to dwell in closing these pages. In fact, if, on the one hand, it is true that the collective narratives elaborated within communities are fundamental to understanding how the memory and identity of a group of inhabitants are constructed in relation to their place; on the other hand, it is equally relevant to consider the vision that the outsider formulates, when he or she stands in relation to this complex of collective representations. In this way, too, a form of inhabiting a territory is constructed that is quite peculiar and different from that of the original or second-generation inhabitants. The outsider, in fact,

21. Interview done to R., 21 yrs old, in new Canolo, 24<sup>th</sup> March 2012

22. Interview done in new Canolo, 24<sup>th</sup> March 2012.

can assume different positions within this dynamic: a position of observer that solicits remembrance and narration; a position of provocation and/or mediation of internal conflicts within communities and groups; a position of critical solicitation of the processes of memorial reconstruction; and, again, a position of positive reinforcement to the action of caring for and enhancing the inhabitants/place relationship. In this regard, in picking up on what has already been pointed out in the previous paragraphs, attention will be focused on the particular vocation of a specific type of outsider, namely the scholar, the outsider who approaches the community of inhabitants with a wealth of specialised issues and skills.

First of all, when using the term "foreigner", reference is made to a specific conception of foreignness, which can be condensed into the definition of "foreigner" proposed by the sociologist Simmel: «The union of the near and the far that every relation among people contains is achieved here in a configuration that formulates it most briefly in this way: The distance within the relationship means that the near is far away, but being a stranger means that the distant is near»<sup>23</sup>.

When Simmel refers to the closeness of the foreigner, he means that closeness which unites him with others as a man, a member of the same species, connoted by the same general traits. Distance, on the other hand, is inherent in those cultural, historical, etc. traits that distinguish him in his particular dimension from the rest of mankind. This peculiar composition of proximity and distance identified in the figure of the stranger, who represents the outsider par excellence, also gives him a greater freedom with respect to the internal members of the group: in fact, this condition of "objectivity" - to borrow Simmel's words - with respect to the circles of natives, more bound to habits, practices, consolidated prejudices, is more simply a form of freedom, which allows him to imagine differently, more dynamically and with less internal pressure. Thanks to this positioning, the stranger – the distant person who becomes near, fixing himself in space and duration – is able to insinuate other possibilities within the group of insiders, thus activating a process of "re-enchantment with respect to spaces/places". This dynamic, in fact, springs up everywhere in society: for instance, migrant communities reinvent places left empty by the insiders and structure their own activities or community lifestyles there, especially in open spaces such as squares; more generally, the caring action of various social groups also constructs new shared meanings for old places that have been forgotten (an example from recent years is occupied theatres). One can also trace a very peculiar action, within this type of care of places, in the role that the scholar potentially plays with respect to places of memory. The outsider/student or researcher takes a very specific approach to

23. SIMMEL 1998, p. 580 (English trans. 2009, p. 601).



Figure 5. Canolo Nuovo, Reggio Calabria (photo S. Pistidda, 2022).

the memories and physical traces of the relationship between inhabitants and place, trying first and foremost to stimulate memory and to select from it, through physical traces, such as ruins, new ways of making use of it. Indeed, what this figure solicits first and foremost is precisely the narration, the memorial reconstruction of that relationship and of the memories that those physical traces testify to. Moreover, this action takes on a particular significance because it is grafted onto the encounter between insiders and outsiders. One of the possible declinations of such an approach is precisely the intervention that can be elaborated with respect to the restoration of certain elements of the landscape of memory, as we have conceived it here, with that peculiar affective and auratic construction of the object/vein that distinguishes it as a sacred place, a condensate of the past. The encounter between social analysis of the collective memory and restoration intervention thus has great potential for enhancing the narratives of the insiders, in a difficult balance that tends to avoid the temptation of isolated design, however avant-garde this may be, from an architectural and urban planning point of view.

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A GAZE BEYOND THE BORDERS



# LOST AND FOUND

Processes of abandonment of the architectural and urban heritage  
in inner areas. Causes, effects, and narratives (Italy, Albania, Romania)



Edited by Annunziata Maria Oteri

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EXTRA



## Sullo spopolamento delle aree rurali in Romania. Politiche, strategie e progetti

Diana Mihnea ("Ion Mincu" University of Urban Planning and Architecture Bucharest), Irina Tulbure-Moldovan ("Ion Mincu" University of Urban Planning and Architecture Bucharest), Oana C. Tiganea (Politecnico di Milano), Emilia Tugui (Faculty of Architecture and Urban Planning, Technical University of Cluj-Napoca)

*Il saggio propone un'analisi storica sul ruolo del villaggio come entità spaziale nella sistematizzazione e riorganizzazione del territorio nazionale rumeno, evidenziando anche il suo significato culturale nella formazione dell'identità nazionale in diverse fasi storiche fondamentali dello stato rumeno moderno. Attraverso due casi studio (Dioşti, contea di Dolj, e Antoneşti, contea di Argeş), il saggio propone una lettura di questo fenomeno legato alla creazione del "villaggio ideale" o del "villaggio modello", che tiene conto dell'approccio tecnico adottato a seguito delle diverse riforme agrarie tra fine Ottocento e prima metà del Novecento, e la ricerca di soluzioni pratiche per affrontare il fenomeno dello spopolamento causato da calamità naturali (1938-1940) e, successivamente, dai intensi processi di industrializzazione e urbanizzazione durante il periodo socialista (1945-1989). Inoltre, nel contesto contemporaneo dominato dal fenomeno dello spopolamento, il riferimento ai casi studio si collega ai miti moderni che pervadono l'immaginario della cultura rumena.*

# LOST AND FOUND

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# Approaching the Rural Abandonment in Twentieth Century Romania: Political Decisions, Strategies, and Intervention Projects

Diana Mihnea, Irina Tulbure-Moldovan, Oana C. Țiganea, Emilia Țugui

The birth of the Romanian national state, in its various phases of political and territorial consolidation from the mid-19<sup>th</sup> to the early 20<sup>th</sup> century<sup>1</sup>, triggered a variety of centrally coordinated strategies and policies regarding the rural environment with its main objective to solve the "rural crisis" as depicted in the official narrative<sup>2</sup>. This necessity was manifested at the national level in a setting in which Romania, by the end of WWII, had an agrarian-based economy with over 70% of its population living in rural areas, presenting large discrepancies between rural and urban living conditions, with even wider developmental gaps between geo-historical areas and ethnic groups<sup>3</sup>. Simultaneously, the Romanian village was positioned in the centre of the national identity debate, stimulating the birth of a particular imaginary in which the peasant with its "ancestral creative genius" played a significant role, nevertheless, used quite frequently as a political planning tool.

Throughout the 20<sup>th</sup> century, the rural settlement continued to be perceived as vulnerable,

1. The year 1859 marks the unification of Moldavia and Walachia and the formation of the Romanian national state in its first phase of consolidation, triggering a variety of reforms destined to sustain the new state. The end of the WW I marks the enlargement of its territories with the unification of other liberated territories such as Bessarabia, Transylvania, Banat, Crișana and Maramureș, known as the "Great Union".

2. KLINGMAN, VERDERY 2011.

3. RONNAS 1984, p. 42.

prompting the Romanian state to implement various strategies and policies for its restructuring amidst changing political regimes<sup>4</sup>. During the interwar years, rural modernisation aimed to stabilize the population, addressing local needs such as natural hazards and territorial national consolidation, without explicitly discussing rural abandonment and depopulation. However, these issues became evident during the intense waves of communist industrialisation, leading to further rural restructuring and territorial “systematization” throughout the 1970s and 1980s. Despite limited resources, the socialist state, as the primary planner and investor, initiated numerous rural modernisation and urbanisation projects, many of which were not implemented, yet prematurely abandoned by the state itself and thus exacerbating the rural crisis.

These processes triggered specific responses from the architects in search of the ideal manner to regulate the rural spontaneous and chaotic development while trying to standardise the rural dwelling based on the regional-specific features observed and analysed in the traditional vernacular architecture. All these responses, even though applied in a disrupted way throughout specific moments of the 20<sup>th</sup> century, had direct effects on the built environment transformations and how professionals continue to relate and perceive the rurality, not enough analysed from a history-based perspective, especially if considered its ongoing crisis with direct references to poverty, marginalisation, and ethnic discrimination<sup>5</sup>. Although not officially stated, all analysed policies and strategies addressed rural depopulation through a continuous approach of modernisation and consolidation that generated “the model project” (addressing the overall scale of the settlement and building typologies), a concept that persists today in the architectural profession. Currently, the village (*satul*, Ro.) remains a relevant architectural and planning theme of interest more than any other built typology, within the broader national strategy of stimulating rural sustainable development through the enhancement of its cultural landscape considered as a social, cultural, and economic asset<sup>6</sup>.

The article links two historical phases apparently disrupted: the interwar with the 1970s and 1980s socialist years, with the main objective to underline the continuous transformations of the rural realm under direct political, economic, and social developmental pressure. The article proposes

4. Monarchy 1918-1940, military dictatorship 1940-1944, and the socialist state 1944-1989.

5. *Zone rurale in declin. Provocări, acțiuni și perspective pentru guvernantă teritorială*, 2020, p. 7.

6. Since 2014, the Romanian Order of Architects (Ordinul Arhitecților din Romania, Ro.) developed a thematic working group focused on analysing and regulating the rural transformations occurred after 1989, with its objectives in maintaining and preserving the rural heritage while promoting a new rural architecture in respect to the local and regional traditions. <https://oar.archi/proiecte-oar/grupul-de-lucru-oar-rural/> (accessed 15 September 2023).

a different interpretation of the rural modernisation from the perspective of anti-depopulation and anti-abandonment strategies triggered by the perpetuated status of marginalisation of rural areas, focusing on the responses of architects and planners engaged by the Romanian state. For each historic period analysed, the article aims to illustrate the multi-disciplinary approach of the “rural crisis” by incorporating ethnographic, sociological, and anthropological studies, as well as considering the political ideologies and propaganda that influenced the Romanian state’s responses and, consequently, of the professional branch<sup>7</sup>.

### *The Agrarian Question and the Drafting of the Ideal Romanian Village at the Beginning of the Twentieth Century*

At the end of the 19th century and the beginning of the 20th, among the many pressing social and economic problems, Romania was confronted with a growing agrarian crisis, often called “the agrarian question”<sup>8</sup>. In 1864, a land reform was adopted: a modernizing measure that “freed” the peasants of their feudal obligations while granting them ownership of the plots of their households and gardens that had been hitherto rent-controlled land. The peasants also received parcels of arable land in sizes that depended on the land availability in their region, the number of cattle they owned, etc. Nevertheless, the arable plots were considered large enough to support a family’s needs. As modern as it was, the Rural Law of 1864 provided only a temporary solution. The demographic growth and the continuous division of the plots from one generation to another gradually worsened the situation of the peasantry, leading to a series of revolts, culminating in 1907 with the most violent of them all<sup>9</sup>. The escalating gravity of the “agrarian question” forced the central authorities to consider a second and more radical land reform based on a partial yet massive expropriation of the large estates and the redistribution of the land to the peasants<sup>10</sup>. After long debates, this second agrarian reform was

7. All aspects of the historic context are relevant from an interdisciplinarity perspective when analysing the rural transformation during the 20th century. However, the authors have chosen to specifically focus on the architectural profession’s responses without delving into the complex debate of political ideology especially with references to the Marxist’s views on the peasantry and its social and cultural transformation planned and implemented during communist regime, if not quoted through existing literature.

8. IORDACHI 2021, pp. 98-101.

9. EIDELBERG 1974.

10. At the beginning of the 20<sup>th</sup> century, all estates larger than 50 hectares were owned by only 5,000 persons. Hence, 0.6% of the total population of the Old Kingdom Romania owned approximately 4 million ha, while a similar area was

hastened in the context of the war, receiving its legal frame in 1918-1921<sup>11</sup>.

At the end of the war, Romania incorporated provinces that had previously belonged to the Austro-Hungarian Empire, such as Transylvania, Banat, Crișana, Maramureș, and Bukovina, and to Russia, such as Bessarabia, approximately doubling its territory and its population<sup>12</sup>. Hence, the 1921 agrarian reform was applied not only to the territory of the Old Kingdom of Romania but also to the new provinces. By the beginning of the Second World War, more than 18,000 estates had been expropriated, a total of over 5,800,000 hectares, leading to a major shift in the land ownership structure throughout the country<sup>13</sup>.

Land redistribution was also accompanied by transformations within the network of rural settlements at the scale of the national territory. In some regions, its density was increased, while in others, its rarefaction was encouraged. The agrarian reform legislation included provisions regarding the allotment of new building plots and provisions regarding colonization. Hence, along with the allotment of arable land, pastures, woodland, etc., over 62,000 hectares were allocated for new villages and expansions of existing ones<sup>14</sup>. The main scope was relocating peasants to regions with available farming land resulting from expropriations. Along with it, the authorities intended to also tackle other long-awaiting issues, such as easing the problem of overcrowded peasant households and relocating villages exposed to landslides or frequent flooding or those situated in remote, inaccessible areas. The population of the high-altitude, low-density, scattered hamlets and villages lacking productive land was one of the main targets of the relocation process. For example, most of the colonists within Transylvania came from the high areas of the Apuseni Mountains<sup>15</sup>.

During the interwar decades, hundreds of new villages were created throughout the country. The

divided between more than 920,000 families of peasants, accounting for 82% of the population. The situation was similar in the rest of the provinces that were to become part of Greater Romania at the end of World War I. ȘANDRU 1975, pp. 17-19.

11. During the war, a considerable part of the national army comprised of peasants. The disastrous defeats suffered by the Romanian army and the serious territorial losses, all on the background of the revolutionary turmoil in neighbouring Russia, forced the king to announce the agrarian reform to raise the soldiers' morale. Land redistribution was hence presented as a reward for the peasants' participation in war. Consequently, at the end of the war, the enactment of the reform was considered a priority.

12. The territory increased from 156,00 square-kilometers to 256,000 square-kilometers. The population of the Old Kingdom was 8,500,000, and it reached 16,500,000 in 1919. HITCHINS 2013, p. 331.

13. ȘANDRU 1975, pp. 250-252.

14. *Ivi* p. 251.

15. ȘANDRU 1975, p. 155.

colonization process and its dislocations did not involve any forced actions on behalf of the state since the people freely applied for land in other regions.

The application of the agrarian reform was hasty from the beginning and proceeded in a rather disorganized manner, involving a multitude of institutions at the local, county, and central levels. Hence, there wasn't any centralized planning regarding the distribution of the new settlements, the choice of the villages to be extended, or that of the settlements that needed to be reconstructed. However, all technical issues regarding the colonization were placed under a central institution of the Ministry of Agriculture and Domains entitled *Casa Centrală a Cooperăției și Împroprietăririi Sătenilor* (further The Central House), that was to take «all necessary measures for the creation of new villages or the enlargement of existing ones», including drafting their plans and the design of different types of rural constructions<sup>16</sup>.

In anticipation of this large-scale undertaking, immediately after the war, during the summer of 1919, The Central House organized a preparatory action: an ample study of 75 villages and 180 households in the newly integrated provinces of Transylvania and Bukovina. Although conducted by architects, these monographic studies contained not only surveys, drawings, and photographs reflecting the layout of the villages and the traditional architecture but also collected information about the local climate, the number of inhabitants and their occupations, the value of the land, the types of crops, public buildings, the costs of building different parts of the households, etc<sup>17</sup>. The study aimed to convey a deeper understanding of Romanian rural life and set the basis for planning the new villages. The entire process was seen as an opportunity to “modernize” rural life while dwelling on an ancestral, traditional core.

The conductor of the study and the institution's most prominent figure was architect Florea Stănculescu (1887-1973). His early conclusions, enriched by later studies, were fundamental in defining the principles of the entire planning undertaken. He found the nucleus of Romanian rural life to be the ensemble of the household and, within it, the dominant element, «the house that concentrates and directs [its] entire life and activity»<sup>18</sup>. Thus, maintaining the traditional characteristics of the household regarding its architectural features and relationships with the surrounding environment (i.e., outbuildings, garden, etc.) would be enough for the new villages to convey a sense of continuity.

16. Article 115 of the *Agrarian Law for Transylvania, Banat, Crișana and Maramureș*, 30.07.1921; Article 116 of the *Agrarian Law of the Old Kingdom of Romania*, 17.07.1921, and Article 88 of the *Agrarian Law for Bukovina*, 30.07.1921.

17. NASTA 1920, pp. 265-270.

18. STĂNCULESCU 1927, p. 21.

Thus, their layout could be subjected to a higher degree of modernisation.

In the early 1920s, it was established that the new villages would have straight streets; the main artery would be at least fifteen-thirty meters wide, and the secondary streets would be twelve meters; the building plots would be rectangular, with a  $\frac{1}{2}$  ratio. Every village would have plots reserved for public institutions (i.e., administrative, educational, cultural, economic), sports terrains, and cemeteries. The new villages would also have one or, preferably, several public squares totalling an area of at least 2% of their entire surface. This was Florea Stănculescu's vision of the "model village"<sup>19</sup>.

Following these principles, 150 new villages and 334 extensions of existing ones were accomplished. The results were most often rigid geometric layouts with a street network set in an orthogonal or radial pattern using symmetrical compositions and creating monumental vistas toward public buildings that were to be erected in or around the squares. The large streets, sometimes as wide as urban boulevards, the squares, and the numerous plots reserved for public buildings and facilities reflect an emphasis on a new kind of public space and, hence, a new kind of envisioned public life that was entirely uncharacteristic for the Romanian rural realm (fig. 1).

The choice for this type of layout was never articulated or argued in any of the publications of that time. Instead, a great emphasis was placed on the architecture of the house and the household, whose "modernisation" was conceived in a narrower frame imposed by the will to maintain their national or rather regional architectural and decorative characteristics. Some such exemplary houses and households were built by the Ministry of Agriculture and Domains between 1924 and 1930 for the colonists in two areas of the country, in north-western Transylvania and in Dobruja – less than 5,500 households, too small a number to have a great impact<sup>20</sup>. Given the state's limited resources to aid the colonists in building their households, in 1927, architect Florea Stănculescu authored a book titled «Case și gospodării la țară» (Houses and Households in the Countryside)<sup>21</sup>, written in an accessible language and addressed to peasants. The book includes guidelines for maintaining the salubrity of the village, the streets, and the households, for preparing the plot, and for establishing their layout. The largest part of the book is dedicated to the house and the outbuildings, containing not only general recommendations but also 20 projects for various types of houses and other

19. NASTA 1924, pp. 2-12; STĂNCULESCU 1925, pp. 28-29.

20. STĂNCULESCU 1941, p. 157; POPESCU 2016, pp. 103-121.

21. STĂNCULESCU 1927.

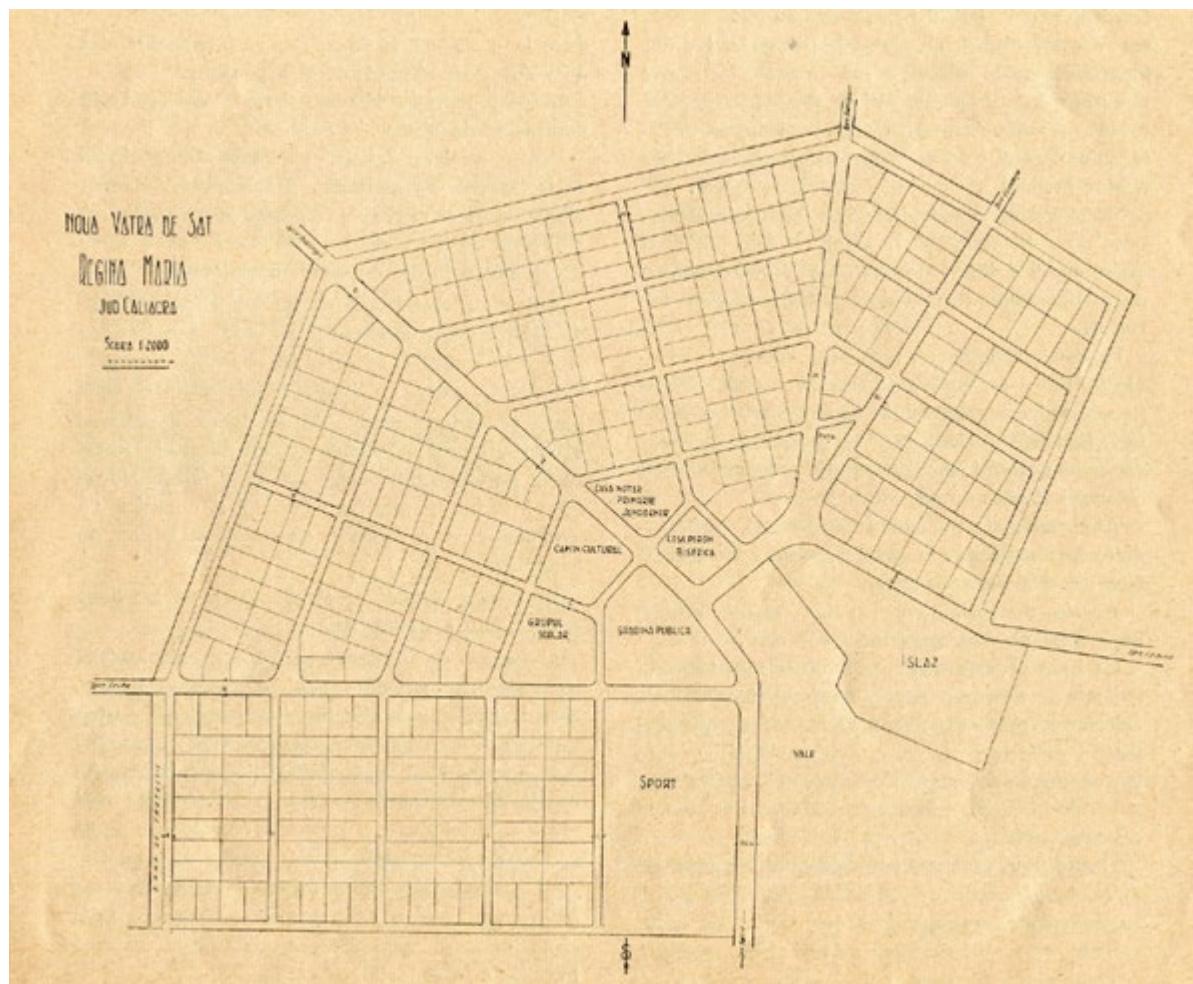


Figure 1. Plan of "Regina Maria" village in Caliacra County, drafted by architect Florea Stănculescu during the 1920s. The large plots in the central area were reserved for sports facilities, a public garden, a school, the Cultural Home, the church and the parish house, and public administrative buildings (*Construcții rurale* 1940, p. 13)

constructions of different sizes, adequate for different geographical regions. The intent was to help colonists and peasants, in general, build salubrious houses while maintaining the traditional character – thought to be endangered, amongst others, by stylistic influences from urban areas<sup>22</sup>. The modernisation, or rather, the amelioration of rural dwelling, was thus sought in the judicious relations between the components of the household, the solidity of the structures, the choice of proper materials, the size of the rooms, the height of the ceiling, the size of the windows, etc. Florea Stănculescu's preoccupation with guiding the production of minor architecture and his attempts at educating the masses through publications can also be seen in the following years in the issue of his journal «Căminul» (The Home) and later, of another journal called «Construcții Rurale. Îndrumări, planuri și cercetări» (Rural Constructions. Guidelines, plans, and research) (figs. 2-4).

The colonization process was an ambitious endeavour whose results did not match the initial objectives. The lack of resources, data, and coordination between the state's institutions led to a very slow and incomplete relocation of the population and, hence, a slow and weak coagulation of the colonies. The new villages rarely, if ever, reached the population for which they were planned. The households were built at a much slower pace than anticipated, and the envisioned new type of public life was either non-existent or remained in an embryonic phase since there were no resources to construct the necessary public buildings, leaving barren for decades the monumentally planned central parts of the settlements<sup>23</sup>.

However, the Ministry of Agriculture and Domains was not the only entity interested in the "modernisation" of rural life, and the agrarian reform wasn't its sole vehicle. During the entire interwar period, the peasantry still represented the great majority of the population, hovering around 80%, and it was often rightfully referred to as «the biological reservoir of the nation»<sup>24</sup>. But this "reservoir" was characterized by a generalized backwardness and a low life standard that varied slightly from one region to another. The average life expectancy was just over 40 years old, due not only to the high infantile death rate (approximately 20%) but also to poor overall health, nutrition, and hygiene conditions. The illiteracy rate was nearly 50%. Although, with the agrarian reform, land was being distributed to peasants, the production was low due to the primitive tools and techniques and the lack of modern agricultural knowledge. Most settlements lacked basic infrastructure. The

22. NASTA 1927, pp. 58-86.

23. ȘANDRU 1980, pp. 59-71.

24. BANU 1939, p. 34; ȘANDRU 1980, p. 38; ȘANDRU 2011, p. 331.

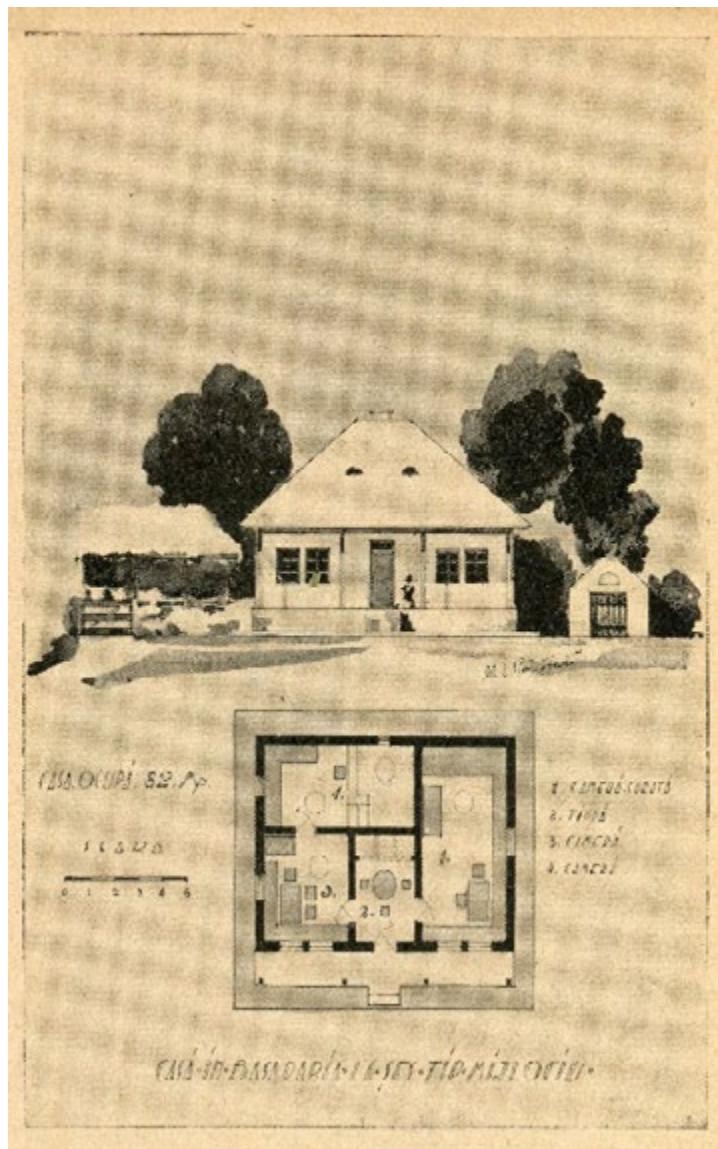


Figure 2. Model house of medium size for colonists settled in plain regions. Plan drafted in during the 1920s (*Construcții rurale* 1940, p. 13).



Figure 3. Model house for colonists settled in hilly regions. Plan drafted in during the 1920s (*Construcții rurale* 1939, p. 10).

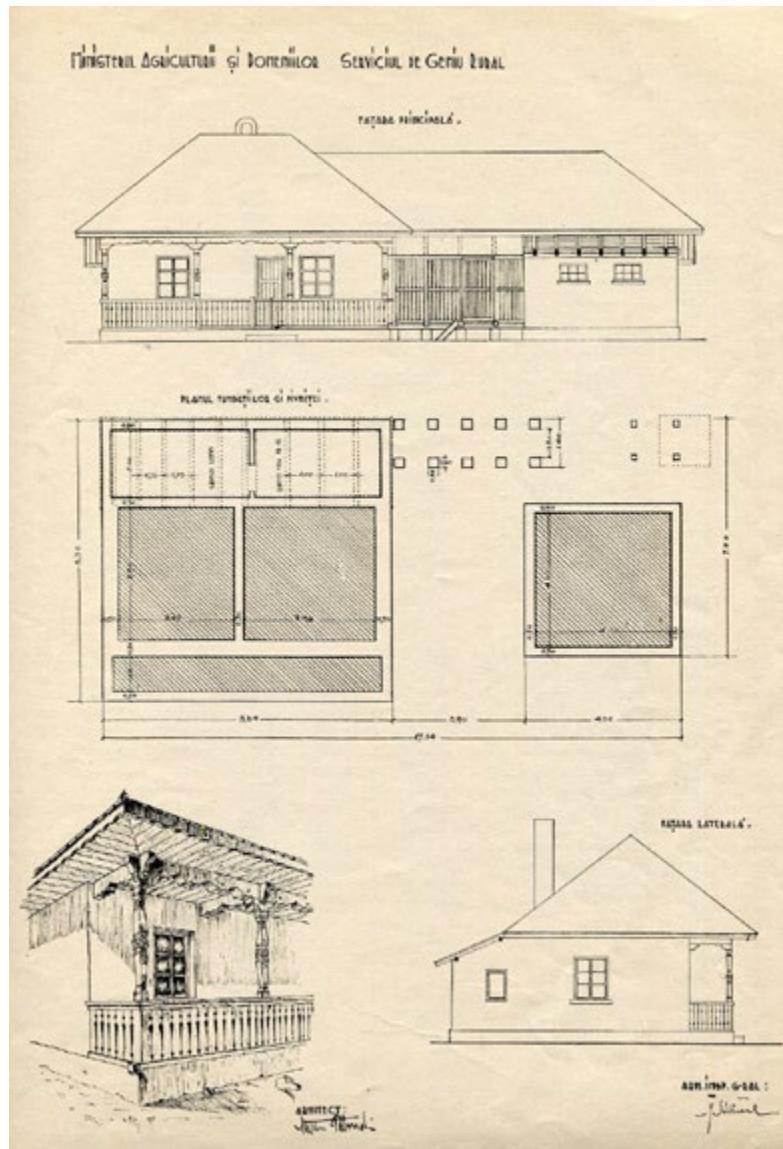


Figure 4. Model house for colonists. Plans were drafted during the 1920s by architects Florea Stănculescu and Ștefan Petrenelli, as employees of the Ministry of Agriculture and Domains (*Construcții rurale* 1939, p. 15).

state of the rural dwellings was generally far from satisfactory, below the «limit of the basic comfort», characterized by overcrowding and insalubrity<sup>25</sup>. As mentioned above, some of these problems were addressed by the institutions in charge of the agrarian reform, but the immediate impact was rather limited. Nevertheless, given the amplitude of the problems, rural life became the focus of various state policies and institutions, as well as of various studies in different fields of interest.

Hence, as early as the beginning of 1919, the rural realm became one of the main concerns of sociologists, whose most prominent institution was the Association for Social Study and Reform, founded by Dimitrie Gusti (1880-1955)<sup>26</sup>. The association devoted itself to «the reconstruction of the country by the aid of the social sciences». For the first decade and a half, the group consolidated around Dimitrie Gusti was preoccupied with elaborating detailed monographic studies of villages since these were considered «the fundamental social units of our country that stood in greatest need of social reform»<sup>27</sup>. The research involved not only sociologists but also geographers, anthropologists, biologists, hygienists, psychologists, economists, folklorists, etc. In Gusti's theory, the purpose of research was always to ensure the basis for reform and direct action<sup>28</sup>.

The shift of the focus from research to action started in 1934.

The reform of rural life was to be based not on a physical model but on the rather intricate theory of «the village that rises by itself» through the empowerment of the peasants and the local communities<sup>29</sup>. The aim was to transform the peasants into active «workers and creators, not simply subjects». In Gusti's view, «private initiative is essential for social improvement but needs to be organized»<sup>30</sup>. Thus, the guidance and organization of the peasant communities would be done by teams of students specialized in different domains, coordinated by official state technical experts. They would have the role of igniting and guiding the initiative and the work of the community, which would eventually have to become self-sustaining<sup>31</sup>. The medium of this complex undertaking was to be the “cultural home” (*casa de cultură*, Ro.), a term that did not designate a building but a

25. BANU 1939, p. 35; ȘANDRU 1980, pp. 160-168.

26. GUSTI 1919, pp. V-XXVII.

27. GUSTI 1919, pp. 1-15.

28. *Ivi* p. 15.

29. SANDU 2012, pp. 215-241.

30. GUSTI 1939, p. 9.

31. STAHL 1939, p. 192.

social institution or organization consisting of the intellectuals of the village (i.e., priests, teachers, state officials, etc.) and representatives of the peasants. The “cultural homes”, guided by the above-mentioned teams, would focus on four main aspects of the peasant’s life: health, labour, soul, and heart. They would, thus, have four branches: the care of public health, the organization of labour, followed by the moral and intellectual improvement. For each of these, different means of education had to become available, such as for public health – the physical education, athletic fields, baths, swimming pools, and clinics; for the organization of labour – the agriculture, viticultural, and veterinary education; the establishments of cooperatives for production and distribution, workshops, etc.; for the spiritual and intellectual training, the organization of school libraries, museums, lecture halls, theatres, etc<sup>32</sup>.

In Gusti’s vision, the tangible manifestation of the program would be the village’s “civic centre”<sup>33</sup>. The ensemble of public buildings and facilities – such as the mayor’s office, school, clinic, public baths, workshops, bakeries, library, and auditorium – would thus become hard proof of the program being ingrained in the structure and life of the village and an impetus for its continuation. The “civic centre” became the core of what Gusti envisioned as the model village<sup>34</sup>.

The first such model village was built starting with 1938. In the spring of that year, the village of Dioști was destroyed by an accidental fire, and its reconstruction was coordinated by one of the most prominent sociologists of Gusti’s school. Even from the beginning of the construction site, the new village became «a centre of social experimentation»<sup>35</sup>. The reconstruction, whose initiative was officially attributed to King Carol II of Romania, was state-funded and coordinated by the Royal Cultural Foundation, directed at that time by Dimitrie Gusti. Several other institutions were involved, such as The National Geological Institute, Bucharest’s House of Gardens, the Ministry of Agriculture and Domains, the Ministry of Air and Marine, the Ministry of Public Works, etc., reflecting a national interest in this pioneering work. The research and the decision-making process were coordinated by

32. GUSTI 1939, p. 9.

33. STAHL 1969, p. 40. The cited book was written in 1969, when its author, Henri H. Stahl, a close collaborator of Gusti during the interwar years, was now involved in the decision-making process regarding the “systematization” of Romanian rural settlements during the communist regime. He highlights the fact that the “civic center” was a concept elaborated by Gusti’s school of Romanian sociology. He also emphasizes the validity of the concept, the “civic center” remaining the core of the modern, communist villages.

34. STAHL 1981, p. 320.

35. GUSTI 1939, pp. 1-15.

a group of sociologists led by Gh. Focșa, aided by architects and engineers of the Royal Foundation and the Ministry of Agriculture and Domains. But, in agreement with the sociological concept of the model village, the peasants were also involved, as the reconstruction process was seen as an opportunity for teaching and for igniting a civil conscience: «It is necessary (...) to make of each man an energy conscious of a certain role in social life, as within a hierarchical organism in which the higher and lower functions meet harmoniously»<sup>36</sup>.

It so happened that the former village of Dioști had historically comprised a community of free peasants with agriculture as their main occupation. Hence, the community was wealthier and had a higher literacy level (80% for men and 50% for women), standing apart from the general backwardness of the Romanian rural world. Before the fire of 1938, the village had had two schools and two churches, many of the children had received higher education in town schools, and the peasants had even invested in agricultural machinery and mechanized tools. The community was, thus, even beforehand, open to emancipation, a fortunate overlapping with the interests of the sociologists.

As expected, the sociologist drafted the concept of a new village based on several strong ideas: the new dwellings had to be salubrious (hence, modern); the village should have a civic centre as the core of social life; it should include educational facilities for children and adults, targeting not only basic education but also the acquisition of modern agricultural knowledge. Finally, everything had to be anchored in tradition. The importance of modernizing agricultural production was greatly emphasized, and it was viewed to bring the peasants closer to «superior forms of life»: «Without abandoning the valuable elements of past social life, we must make a considerable effort to adapt ourselves to the techniques of modern civilization»<sup>37</sup>.

The centre of the village was translated northwards, closer to the national road. It was reorganized along a straight, broad boulevard of twenty-two meters wide, considered the new settlement's spinal cord, with the households' rectangular plots on each side. At the junction of the new settlement with the old hearth (*vatra*, Ro.), the civic centre was built, containing an axially placed Cultural Home<sup>38</sup>, and the church, the school, and several administrative buildings arranged symmetrically. At the opposite end of the boulevard, the Ministry of Agriculture and Domains built «the most complete

36. FOCȘA 1941, pp. 9, 19-22.

37. *Ivi* p. 6.

38. The Cultural Home was a compact building containing «all sections for the spiritual, sanitary, and economic life» of the village: auditorium, library, clinic, public baths, a store, etc. FOCȘA 1941, p. 18; STĂNCULESCO 1940, pp. 33-42.

agronomical centre of the region». All public buildings received a rather monumental and dignifying appearance, with architectural and decorative features considered proper for a national style. The new houses and outbuildings had to be modern and hygienic. They also had to become a model in themselves and an example of “correct” rural architecture embodying the “local specificity” from construction materials to decorative features (fig. 5). The inspiration did not come directly from the remaining houses of the old village since they were thought to be a hybrid mixture of styles. At the end of the project, its coordinator proudly wrote that an exemplary style was created, interrupting «the messy winds of fashion that guided most innovation in rural constructions»<sup>39</sup>.

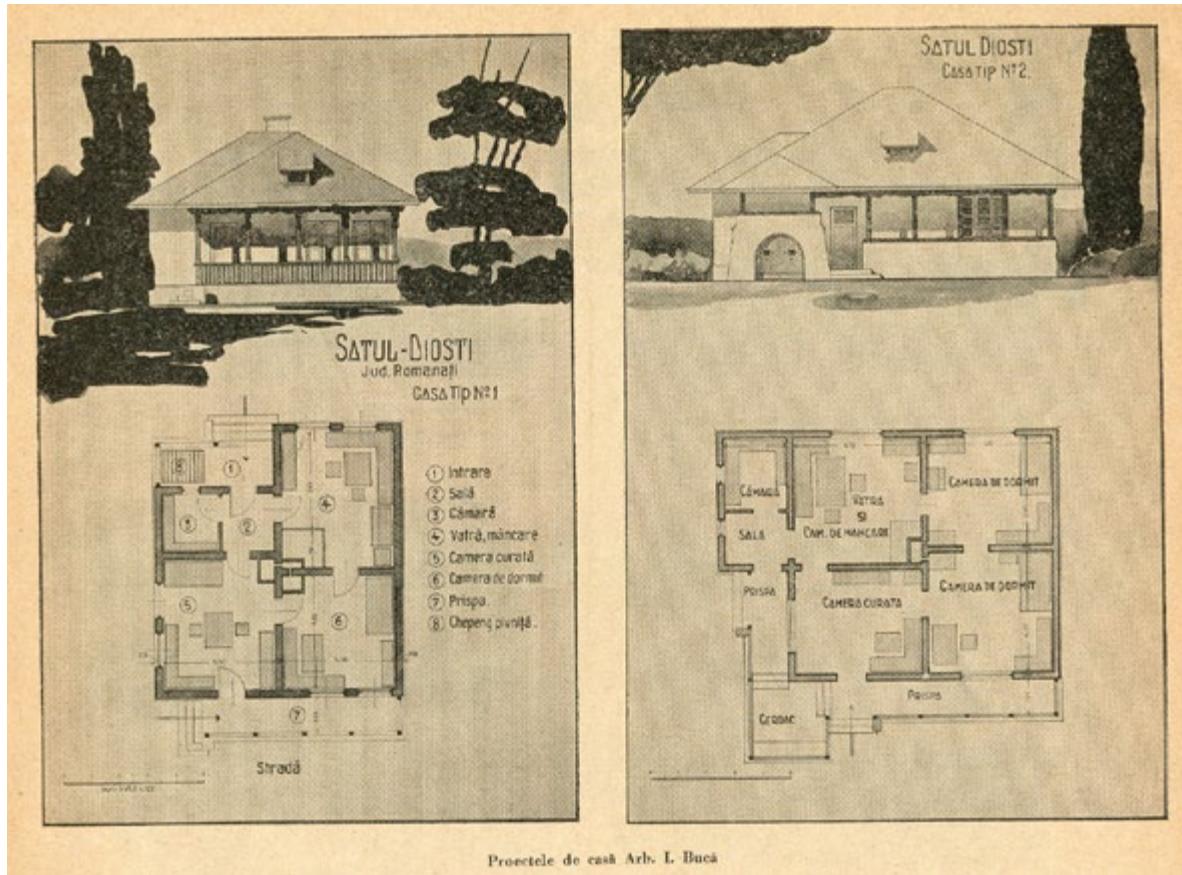
The new village of Dioşti became a landmark for professionals and was often used as a reference in the coming periods. Its reconstruction in 1938 took place against the backdrop of significant political changes generated by the establishment of the royal dictatorship. This, in turn, was to be replaced by a military dictatorship only two years later, in 1940, when Marshal Antonescu, the president of the Council of Ministers at the time, took over the country's leadership. Hence, from the end of the 1930s, Romania stepped into a new stage marked by growing state authority and the increased centralization of decision-making processes. This was a propitious era for reviving and implementing ideas that had taken shape since the 1920s regarding centralized control of the national territory and centralized planning of the national economy and state investments. A major component of the new directions regarded the systematization of the national territory and all settlements, each having defined a specific role within the national organism. All these ideas and visions were also propelled by the necessity (or the anticipation of it) of reconstructing the areas destroyed during the war or by natural disasters such as the earthquake and flooding of 1940 and 1941<sup>40</sup>.

The task of reconstruction was mainly assigned to the General Directorate of Rebuilding (*Direcția Generală a Reconstituției Ro.*), a newly established institution within the Ministry of Public Works. Its role was to draft complete or partial systematization plans for the destroyed settlements, to draw up projects for all the buildings needed by the public administration and to make projects for rural buildings, farms and households. It was to be aided in its task by a series of other state institutions.

In the above-mentioned scheme of a national scale, the rural world continued, as one would expect, to play a significant part and became once again the focus of the authorities. The peasant population and village realm, in general, still needed to be emancipated, and agriculture needed to

39. FOCŞA 1941, p. 35.

40. RĂUȚĂ 2013, pp. 100-112; TULBURE 2016, pp. 57-69.



Proiectele de casă Arb. I. Bucă

Figure 5. Houses of type 1 and 2 for the model village of Dioști. Author: I. Bucă, architect of the Royal Cultural Foundations (*Construcții rurale* 1940, p. 37).

be modernized and industrialized. Since the systematization of all settlements was too ambitious, especially in a restricted war economy, in 1942, twelve villages were selected to be exemplary developed and, thus, to become models for future systematizations (fig. 6). The villages were scattered throughout the country, being situated in different historical regions and geographic settings. None of them were constructed, but their projects, drafted by the Directorate of Rebuilding, are relevant to the overall vision of the ideal Romanian village. They had monumental civic centers organized around oversized public squares with symmetrical, monumental compositions that placed a church in a privileged central position. Around the public square, there were the administration building, school, public baths, and several other public and economic buildings. Their architecture, judging by the cases where the projects included such details, was tributary to the architectural tradition of the respective regions. The size and monumentality of the village cores can be related to the fact that, by now, the civic centre was associated with loyalty to the regime<sup>41</sup>.

However, one model village was built in the early 1940s. It was not part of the group of the twelve chosen villages. Similarly to the case of Dioști, it was a reconstruction of a village gravely affected by the floodings of 1941. Its situation attracted the attention of Marshal Antonescu and the rebuilding of the former village of Corbeni, renamed Antonești after the supreme ruler, started in 1942. The village, further analysed in the last part of the article, was the only complete “model village” constructed during the 1940s. It is a sample that faithfully reflects the vision of that era on the development of the rural world.

The process of shaping the rural world of the 1940s also included drafting exemplary or standard projects for rural dwellings and public buildings. Their architecture had to convey a sense of unity, but it always included specific characteristics of the regions for each they were intended<sup>42</sup>.

The ambitious project of the 1920s-1940s had, as mentioned, major implications for the national network of settlements. As far as the direct implications on rural architecture are concerned, they were rather limited, restricted to the direct interventions of the Ministry of Agriculture and the few model villages of the 1930s and 1940s. Yet, it is difficult to assess the indirect impact determined by the circulation of models, of possible fashion in rural architecture generated by the exemplary buildings and the published projects. What is certain, however, is that the ideas and directions forged during the interwar period and the 1940s became, to a considerable extent, the premises of the visions, policies, and interventions that targeted the post-war rural world.

41. RĂUȚĂ 2013, pp. 106-112, SANIC, Section MLP, File 666/1942.

42. SANIC, Section MLP, File 668/1942.

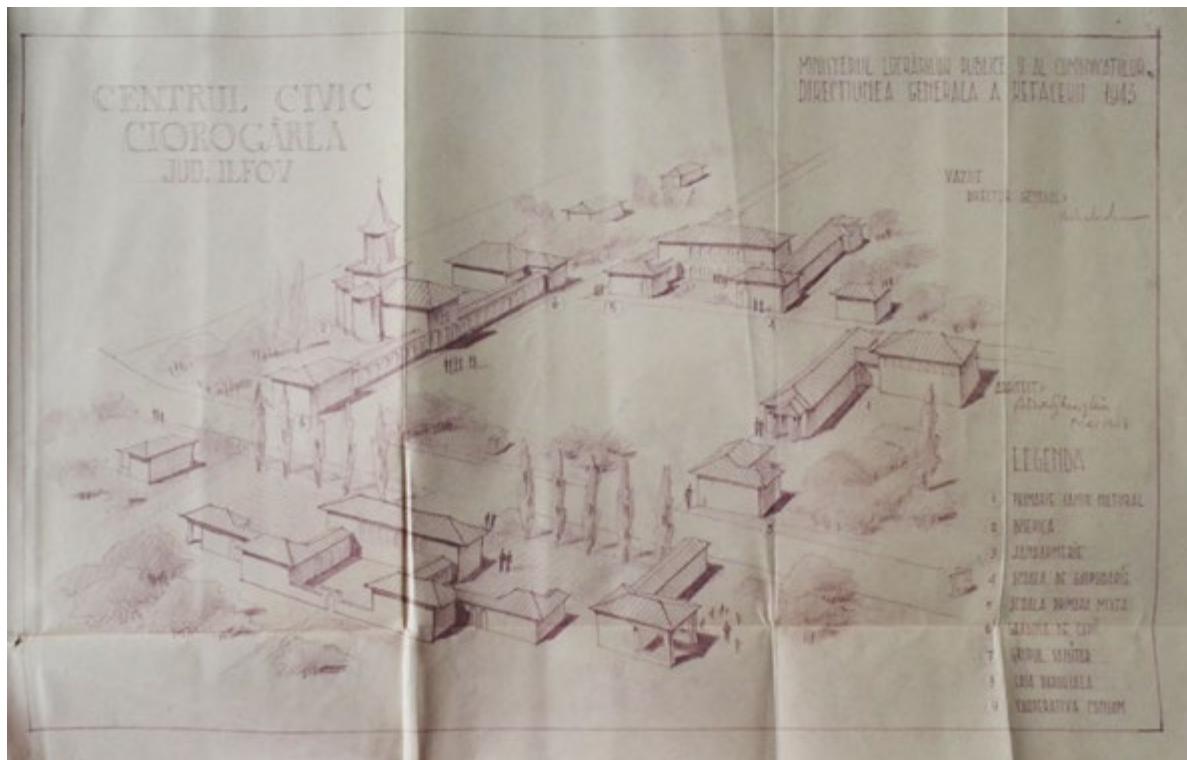


Figure 6. Aerial perspective drawing of the civic center of Ciorogârla, one of the twelve villages chosen in 1942 for an exemplary systematisation (ANR, Section MPL - Direcția Arhitectură și Sistematizare, file 735/1943, p. 131).

### *Reorganization of the Rural Settlements in Post-1945 Romania: A Centralized Approach*

“Systematization plan”, “rough [systematization] project” (plan de sistematizare/schița proiectului [de sistematizare], Ro.) were specific terms of the technical lexicon referring to town planning, and they became stable concepts in the late 1930s. In the post-war town planning practice, the “rough systematization plan” (schița de sistematizare, Ro.) became the usual technical instrument that indicated the general rules for town development. The understanding of the term “systematization” exceeded its technical meaning in the last decades of communism due to the large-scale process of restructuring the urban and rural network. The term “systematization” became a symbol in public memory for the reconfiguration of central urban areas, accompanied by the destruction and demolition of the built fabric, and for the massive plan for reorganizing the rural network<sup>43</sup>.

The political interpretation of the rural transformation has two dimensions: first, it is the ideological connotation bent in the national scale “systematization” plan, and second, its historical significance about the collapse of the communist regime in 1989. Information about the radical demolitions, reconstruction and forced relocation of the communities that were about to occur with the implementation of the “systematization plan” transgressed the Iron Curtain in the late 1980s, inflamed by the consecutive discourses of Ceaușescu in March and November 1988<sup>44</sup>. Not only has the case been to the attention of several scholars and therefore largely exposed in the scientific literature<sup>45</sup>, but the Western public became aware of the dramatic situation in Romania due to the broadcasting of the documentary *Le désastre rouge* (The Red Disaster) to the Belgian public channel<sup>46</sup>.

Although it aroused Western interest only in the last years of the communist regime, through the key to the violation of human rights, implementing “rural systematization” was not the first inequitable action oriented towards the Romanian peasants. The collectivization of agriculture, as several researches demonstrated it, represented a period of injustices specific to the political regime manifested through deportations, relocations, deaths, and terror. It was considered a true «war against the [Romanian] peasantry»<sup>47</sup>. The process of collectivization of the agriculture began in 1949

43. RONNAS 1984, p. 21; VAIS 2022, pp. 207-222.

44. DEMETER 2020, pp. 121-150.

45. TURNOCK 1976, pp. 83-102; RONNAS 1982, pp. 143-151; RONNAS 1989, pp. 543-559; TURNOCK 1991, pp. 81-112.

46. The documentary entitled *Opération Villages Roumains* and created by Josie Dubié after a trip to Romania, was the trigger for the western mobilization against the destruction of the Romanian villages. ȘERBAN 2021.

47. IORDACHI, DOBRINCU 2014, p. 251.

and it was officially claimed as a closed action in 1962<sup>48</sup>. Although it did not represent a real success for the regime, it can be seen, in fact, as the first stage of a long-term plan for the reorganization of the rural environment, which included the reconstruction of the villages according to the socialist principles.

The “systematization” of 1970-1980 was generally approached by scholars as an independent process intimately tied to the radical political visions specific to the last decades of Nicolae Ceaușescu leadership (1965-1989). However, the roots of this process may be seen in legislative decisions that began even before the collectivization was considered closed. By the end of the 1950s, the first measures were issued regarding the reorganization of the territorial land use and the densification of the actual settlements by imposing restrictions on buildings outside the village perimeter (*vatra satului*, Ro.). The general background that made possible the consistent and large-scale intervention over the rural settlements is the law for the administrative-territorial reorganization issued in 1968<sup>49</sup> which (re)created the interwar administrative typology based on counties<sup>50</sup>. According to the new territorial distribution, new (county) agencies were created, which played a seminal role in the “systematization” process. Following 1972<sup>51</sup>, several laws were issued directly addressing the systematization of the urban and rural settlements, among which the most relevant is a couple of laws issued in 1974 (L. 58, L. 59)<sup>52</sup>.

Reflections of this evolution are echoed in the architects’ preoccupations in the same period. Comparing two articles, issued in «Arhitectura»<sup>53</sup> in 1954 and in 1962, is relevant for the context: the earliest discusses in unspecific terms the necessity of conceiving “systematization plans” about

48. KLIGMAN, VERDERI 2011.

49. *Principiile de bază*, 1967; Lege 2 din 16 Februarie 1968 privind reorganizarea administrativă a teritoriului Republicii Socialiste România (Buletinul Oficial, Nr. 17, 17 Februarie 1968).

50. The counties were more limited in surface than the regions defined in the administrative territorial distribution established in 1950 following the Soviet pattern.

51. 1972 is related to the new party guidelines on the urban and rural systematization were issued with the occasion of a very echoing party conference *Conferința Națională a Partidului Comunist Român cu privire la sistematizarea teritoriului, a orașelor și satelor, la dezvoltarea lor economic – social*. 19-21.07.1972.

52. The radicalisation factor may be understood through the evolution of the type of legislative documents referring both to urban and rural systematization: a first step characterised by the formalization of the political guidelines into vague official documents, accompanied by decisions and decrees of the Council of Ministers pointing specific issues and a second step, distinguished by the integration of the same problematics into general laws.

53. References to this publication are essential for 1945-1989 years since it was the single official publication for the architects and its documentary role has been often underlined by several authors.

the construction of the new state units (*cooperative agricole*, Ro.)<sup>54</sup>, as in the latter, there is a clear identification of the issues to be solved and the main directions biased in the “rural systematization”. The new process was defined as a successive step of collectivization, with obtaining a larger and more efficient agricultural land as one of the main goals<sup>55</sup>.

The “rural systematization” was imposed as a significant theme of discussion for the architects in the mid-1960s, and among the primary considerations underlined on several occasions<sup>56</sup> were the high per cent of rural population; the specific structure of the rural network dominated by a high density of small rural settlements<sup>57</sup>; the deficiency of modern (urban) life facilities and the need to improve agricultural exploitation through the industrialisation of the agriculture. Sociologists added to architects’ perspective another ingredient: geographical and social mobility engendered in the rural-urban migration<sup>58</sup>. Therefore, the “rural systematization” aimed to solve the incompatibilities between the high density of the rural network and the low density of the actual settlements, mostly characteristic of the high-altitude villages and triggered by the rural-urban migration within the industrialisation waves, threatening to cause rural depopulation<sup>59</sup>. Still, during the 1970s, the central rhetoric was oriented towards the high rate of rural population (60%) living in villages defined by backwardness, lacking technical infrastructure (i.e., water supply and sewage, electricity, gas) and social infrastructure (i.e., education, health, cultural facilities).

The first obvious response in this respect addressed the reorganization of the rural network itself, reinforcing more developed settlements through investments in buildings for public facilities and infrastructure. Such an approach had apparent similarities with the late interwar thinking, and several connections may be underlined in this respect. Florea Stănculescu, already mentioned as one of the architects with a relevant role in the interwar rural systematization, once again reiterates

54. ADLER 1954, pp. 11-12.

55. VERNESCU 1962, pp. 9-10.

56. In 1966 a conference dedicated to rural systematization took place at the Union of Architects, entitled *Some issues regarding the systematization of the rural network/ Unele probleme ale sistematizării rețelei de sate*, followed in 1968 by a plenary session of the Union of Architects on the topic of *Rural Systematization/ Sistematizarea Rurală*.

57. Before 1968 there were 15,000 villages with an amount of almost 12,750,000 inhabitants, of which 70% had less than 1,000 inhabitants. To be noted that in the socialist spatial planning, during the same period, 1000 inhabitants was considered the limit for a viable settlement. VERNESCU 1967, p. 36; SAMPSON 1984, p. 62.

58. STAHL 1969, or, more specific: STAHL 1972, p. 89.

59. RONNAS 1989, p. 546; National Archives of Romania (SANIC), Section CPCP – Systematization, design and constructions, File 302/1977.

the relevance of the territorial process. In a short text, signed in 1968, he magnetises the new political context to the interwar ideas regarding the coagulation and consolidation of the stronger rural communities to become pulls of gravities for the small-scattered villages<sup>60</sup>. In their struggle to create stronger rural communities, the interwar initiatives, even if poorly materialized, forged the idea of emancipation of the peasant (rural world) and mechanization of agriculture, aiming to solve the backwardness of rural life and upgrade it to “superior forms” [of life]. Despite the apparent correspondence in approaching the issue at a territorial scale, emphasized by the formal reversion to the interwar administrative structure, the extensive process of rural restructuring in 1970-1980 was tailored after a Soviet shape, reiterating the socialist rural spatial planning. The reorganization of the rural network in the Soviet thinking was based on an artificial operation of converting the rural settlements considered to have potential for growth into agro-industrial towns and of forcing the abandonment of the rural settlements identified with no perspectives for development<sup>61</sup>.

During the radicalising ideas in 1970s Romania, institutional centralisation also occurred, and leading commissions became active<sup>62</sup>. The centralised practices included reports regarding the territorial “systematisation” process<sup>63</sup> and standardised forms referencing the different types of indicators for the villages identifying their viability and potential for development<sup>64</sup>. Among others, the villages included in the phasing-out process were characterised in the documents by the lack of accessibility or insecure conditions for construction, such as potential for flooding or landslides, considerations that seem to represent objective motivations for interventions. On the other hand, behind the dysfunctional use of the land stood the excessive strategy of obtaining agricultural land through the relocation of the households, which in some cases demonstrates the irrationality and

60. STĂNCULESCU 1969.

61. SAMPSON 1984, pp. 51-67.

62. Beside the «Central Committee of the Party and State for the Systematization of the Territory and Settlements» (1970) the «Committee for the Problems of the People’s Councils» (*Comitetul pentru Problemele Consiliilor Populare* – CPCP, Ro.) was replacing a previous organism, «State Committee for Economy and Local Administration». To the CPCP was attached a «Systematization Agency».

63. The reports were advanced by the County Council to the CPCP and the informs also contained detailed information about the implementation of the process and not only regarding the homogenization of the design methods. These documents are relevant today also because they display the actual level of responses and implementation of the rural systematization process, reflecting an enormous hiatus between the utopian views of the party/proposals of the architects and the actual reality. SAMPSON 1984, p. 65.

64. RONNAS 1989, p. 544.

abusiveness of the initiatives. As an example, in 1980, Caraș Severin County Council reported that through the establishment of the new built-up perimeters, it gained an economy of 211 hectares of agricultural land and, specifically, reported the implementation process by the relocation of 45 households, which "recovered" a plot for agricultural use of two hectares<sup>65</sup>.

In terms of conceiving solutions, post-war visions for the future of the rural settlements are entangled in using fundamental concepts and instruments specific to town planning, applied at a territorial national scale (fig. 7). Therefore, the reorganization of the rural territory took into consideration industrial production as a primary factor paired with the accommodation of the inhabitants, the functional segregation of the territory, economy, standardization and repetitive patterns. High density is understood as efficiency. Applying these principles would have led to the complete eradication of the rural environment. Such an affirmation fits three distinctive approaches to the long-term post-1945 systematization process. First, the reorganization of the rural network was intended to be adjusted to support the overall territorial distribution of the productive functions. Therefore, the villages, traditionally considered as settlements related to agriculture were supposed to be reconsidered partially as industrial or agro-industrial small towns and, thus, increasing the industrial function of the national territory. Second, the industrialisation process in the 1960s and the growth of industrial towns determined a decrease in the rural population by 1977<sup>66</sup>. Adding a complementary industrial function to an agrarian settlement was considered a measure to stop the migration towards the highly industrialised town. Hence, it involved transforming «the actual peasant into an industrial worker»<sup>67</sup>. Third, gaining economy through the increment of density and therefore saving investment funds in technical infrastructure was a motivation frequently stipulated for the densification of large collective housing estates and applied to a territorial scale by phasing out the villages with no economic potential and, through that, eradicating the traditional rural settlements (figs. 8-9).

65. SANIC, Section CPCP, File 38/1980.

66. RONNAS 1982, pp. 147-149.

67. Such motivations were recurrent in the written documentation related to the county territorial zoning. For example, in case of Sibiu County it was considered that a high level of migration rural-urban and rural-rural occurred within the administrative territory of the county due to the uneven industrial development. Sibiu, the main town, represented an attraction for 32 other settlements summing 50% of the county population, other rural-industrial settlements, with already grown industries were generators of rural-rural migration. Therefore, the future previsions were indicating investments in industrialization for some of the communes with "potential". Their upgrade to urban settlements would, in the end, stop the migration towards Sibiu, which would, eventually, reduce its influence only upon 11 rural settlements. SANIC, Section CPCP, File 95/1977, pp. 84-85.

This process was accelerated by the territorial strategy which lacked perspectives for sustainable and long-term development and, thus, might be understood only as a part of the process of phasing out the rural reality. Such a process seems to be justified by the obsession for urbanisation biased in the principles of socialist systematization, as an interpretation of Marxist theories related to the elimination of the disparities between rural (agricultural) and urban (industrial)<sup>68</sup>. In the 1970s and 1980s, with different voices and perspectives, sociologists approached the "rural matter" decrypting both the understanding of the transformations of the rural world within "the socialist conditions" and its future perspectives<sup>69</sup>. In a series of texts referring to the rural transformations, the sociologist Alexandru Bărbat indicates that even if, according to the Marxist aspirations, there will be more common features shared both by the peasantry and the working class, objectively, homogenization cannot reduce aspirations and way of life to a unique individual type and therefore the human society cannot be reduced to a singular typology, «urban» or other<sup>70</sup>. He also stipulated referencing the broader international perspective that, despite the intentions of urbanizing the rural settlements, there is a specific limit for such a transformation, in which the «rural» does not want (or it is not able) to reshape into «urban»<sup>71</sup>. He clearly distinguishes between rural modernisation (emancipation) and rural «urbanisation», strictly separating the two concepts. In such a perspective, the urbanisation of the rural settlement is a particular process that completely reorganizes the inherent structure of a settlement, as is the case - he indicates - of the agro-industrial towns, which leads to a "depersonalization of the rural", obliged to fit an "inappropriate garment"<sup>72</sup>.

Among other indications related to upgrading the viable villages to "urban-like socio-economic centres", party policy set the "radical transformation of the aspect" of the rural settlements as another central objective. If the first part of the affirmation has a more abstract interpretation, the

68. From an ideological perspective, the socialist industrialisation applied at all territorial levels stressed the need of a social and cultural transformation of the peasantry into a working class illustrated widely in the 1950s and 1960s art works (i.e., paintings, movies, poems). The industrial town, no matter its scale, was meant to bring a significant increase in quality life as it offered job opportunities, economic stability, and privileges to the population that migrated from rural areas to urban ones. MURGESCU 2010, pp. 349-350.

69. Such an idea is clearly emphasized in Ronnas and Turnock's several papers, who consider that mainly the position of the architects was more open to the utopian political visions while geographers, economists and sociologists kept more distance and addressed the issue more retiring.

70. BĂRBAT 1974, pp. 790-791.

71. *Ivi*, p. 795.

72. BĂRBAT 1977, pp. 729-730.

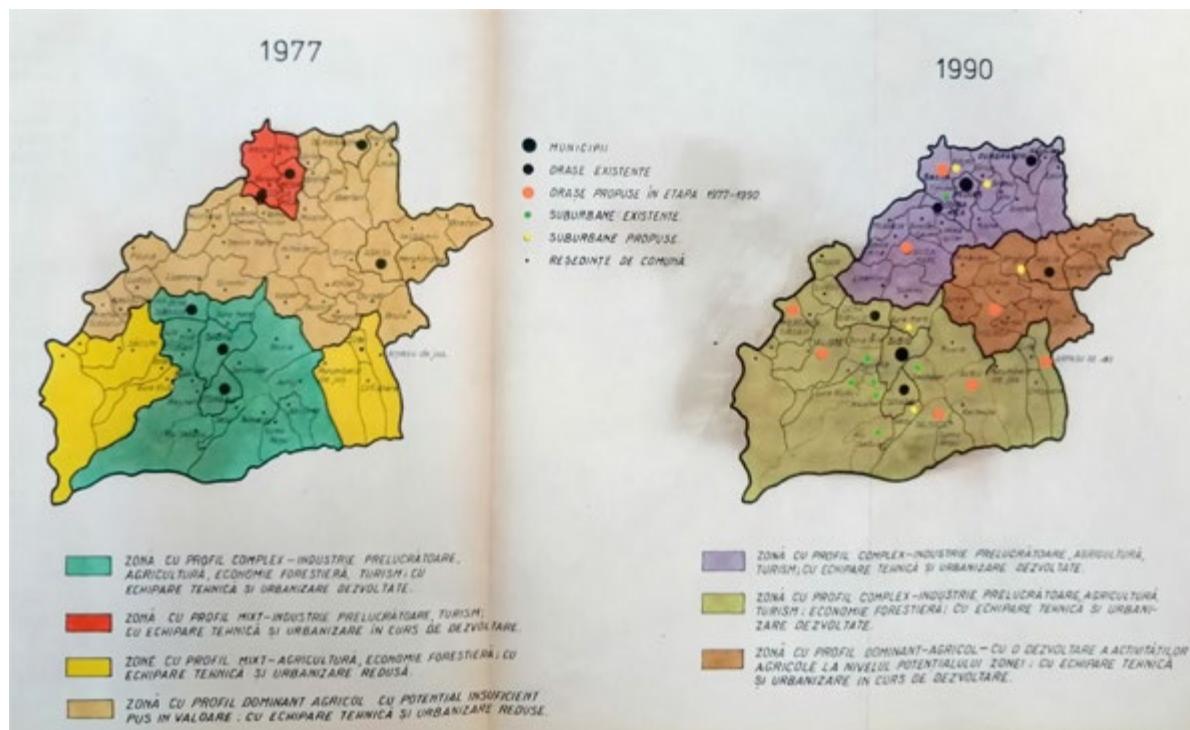
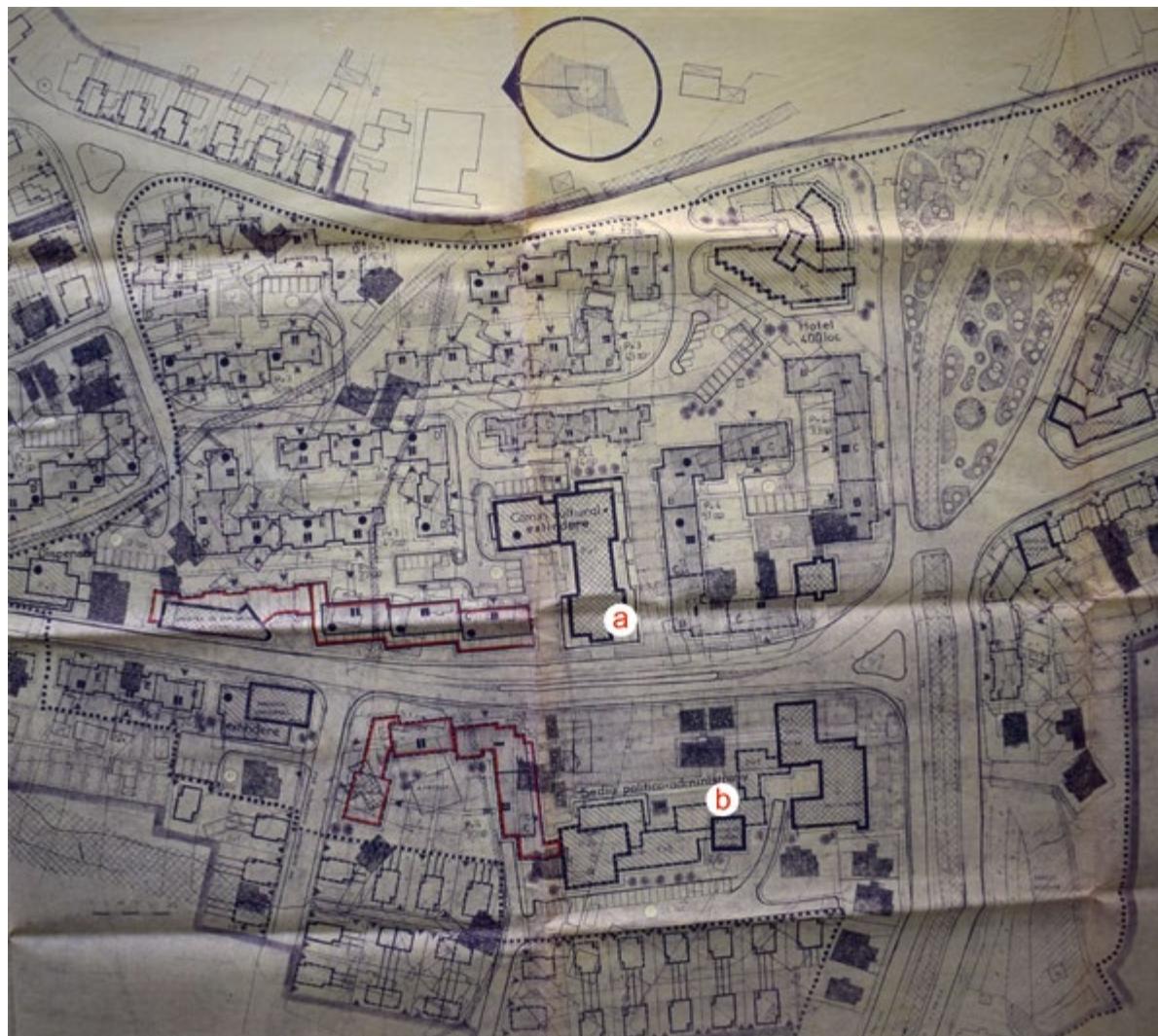


Figure 7. Territorial zoning for Sibiu County. (Left: situation in 1977) Key: green: Industry, agriculture, timber industry, tourism. High degree of urbanization and infrastructure; Red: industry, tourism. Developing degree of urbanization and infrastructure; Yellow: Agriculture, timber industry. Reduced degree of urbanization and infrastructure; Ochre: Mainly agricultural area. Reduced degree of urbanization and infrastructure (Right: proposal for territorial development estimated for 1990) Violet: industry, agriculture, tourism, High degree of urbanization and infrastructure; Olive: industry, agriculture, tourism, timber industry. High degree of urbanization and infrastructure; Brown: Mainly agriculture. Developing degree of urbanization and infrastructure (ANR, Section CPCP, file 95/1977).



Figure 8. (Up): Proposal for the “systematization” of Râciu, Mureş County, 1967. New constructions: 1. Commercial buildings; 2. Administrative buildings; 3. Sanitary facilities; 4. Nursery and kindergarten 5. Apartments blocks. The administrative unit of Râciu had two other components (Coasta Mare and Nima Râciului) with a total number of 2315 inhabitants. Through the proposal of systematisation, previsions for the population growth were pointing to an amount of 3300 inhabitants (CDCAS 1968, p. 29; (Down): Aerial view: Google Earth 2023).

On the next page, figure 9. Detail for the “systematization” of the civic centre of Rucăr, Argeş County, 1977. Key: a) house of culture (*cămin cultural* – specific typology for rural settlements); b) Political – Administrative headquarters. Prevision plans suggested the upgrade of Rucăr as a small urban settlement (*centru economic social cu caracter urban*, Ro.) (ANR, CPCP, File A26 – Arges, 1973).



latter indicates a change in the physical display. The rhetoric of designing more orderly layouts that are functionally arranged ends up in a complete standardised modulation of the house-plot unit and of the system of plots. Successive studies were synthesised in catalogues with standard rough layouts adjusted upon several specific characteristics: plot dimension, plot position (field and corner), house/plot dimensions, and house orientations. Besides the standardisation of the settlement structure, the modernisation and improvement of the living standards proposed a network of social and cultural constructions grouped in the specific units of the civic centres (*centru civic*, Ro.) Thus, reshaping the tangible aspect of the settlements and transforming it into a contemporary urban environment.

With almost no exception, all the documents, studies, scientific or propagandistic publications contained a fervent motivation regarding the construction of the civic centres. Such a necessity was based on the idea that the lack of a “community centre”, a core of the settlement, was the feature of the most small and medium-sized settlements spontaneously developed<sup>73</sup>. The lack of central areas and the formation of civic centres in rural or urban settlements have been topics discussed mainly in reference to Romanian town planning since the late 19th century, especially in relation to the eastern provinces (Romanian *Kingdom/Regatul românesc*, Ro.) marked by a less structured urban morphology.

The concept of “civic centre” became a stable term in urban planning during the interwar period<sup>74</sup>, and when dealing with rural development, it became a pivotal element, intensively charged by symbolic meaning at the beginning of the 1940s. Such an affirmation is consistent with the disproportionate layouts of the civic centres designed for the twelve model villages during Antonescu’s regime. The civic centres designed for the villages in the post-war period shared some features with the previous mentioned: over-dimensioning of the public squares; forced adaptation to the existent morphology of the settlement; a complex cluster of modern functions aiming to forge emancipation of the rural everyday life and excessive monumentality in association to a symbolic building such as the over-dimensioned church in the case of the interwar period. Overall, the necessity of offering relatively rigid standards and typologies as models for further multiplications. Until 1968, around thirty systematization plans for villages were designed, establishing the built-up perimeter and a detailed

73. «[...] most of the villages, small and medium sized towns envisaged for becoming urban centres and agro-industrial towns display a shapeless, non-hierarchical structure, missing a central area or civic centres. Hence, a viable urban organism cannot be devoid especially of a central core that concentrates the political-administrative, socio-cultural, commercial life of its inhabitants. », ANR, Section CPCP, File 35/1979.

74. SFINTESCU 1934, p. 746.

design for the central area. The new civic centres included existent public buildings<sup>75</sup> and added new elements (i.e., administrative, cultural, commercial, and leisure) gathered around a public square<sup>76</sup>. A second important set of constructions that shaped the rural civic centres were several low-level apartment blocks arranged in the typical display used to design the urban neighbourhoods<sup>77</sup>.

During the radicalization of the systematization process in the 1970s, the recommendations for organizing the civic centres indicated a single or double structure of squares with the political-administrative having a prevailing role (*piata sediului politic-administrativ, Ro.*)<sup>78</sup>. Relative to the first projects for rural civic centres and small agro-industrial towns<sup>79</sup> conceived in the 1960s, the later projects were proposing more compact areas for public squares bounded by more dense constructions. Densification of the built fabric was also applied to the housing constructions; for example, the height of the apartment blocks for the central area of Rucăr was increased to four levels. The height increment came in 1977 with the special status of Rucăr as a rural settlement with the potential for development as a future urban settlement. An overview of several projects for the civic centre proves, in many cases, the use of a similar formal typology disregarding the size of the settlement or other built features. Not only that the central areas of the rural settlements were small scale imitations of the urban civic centres, but also the design of the overall built fabric took into consideration specific urban coefficients such as the usage of collective housing for the increment in height and built density percentage, limited areas for the plots such as 150, 200 and 250 instead of 1000 and 500 square metres for the housing plots<sup>80</sup>.

75. It is also to be noted that the villages and their historical background covered a wide range of typologies since Romanian territory, as resulted after the unification in 1918, included historical regions marked by the presence of different cultures - ethnic groups, and waves of colonization beginning in the medieval times. Some of the villages were therefore marked by the presence of historical buildings listed on the Historical Monuments List such as the case of Livada Reformed Church dated back to 1457, Wecsay Manison dating 1760-1764 or Bahnea Bethlen Manison dated 1545. Nevertheless, even if the new proposals were considering the existing buildings as part of the new civic centre there cannot be seen a clear difference in approach in comparison to the civic centres proposed for the more recent settlements.

76. Turnock's publication dating 1976 presents a brief overview of the actual typologies, interests in the research and reorganization of the Romanian rural settlements.

77. NITS 1973, pp. 16-17.

78. SANIC, Section CPCP, File 35/1979, p. 45.

79. In the evolution of the rural systematization practice the concept and the term of "agro-industrial town" (*oras agro-industrial, Ro.*) becomes referential by the 1970, rarely used in the mimetic translation from the Russian concept of "agrotown" (*agro-oraș, Ro.*).

80. Detailed criteria for the rural systematization were conceived by the Agency dependent of the central committee

From a reduced perspective, the frame that can be applied regarding the expression of rural architecture during the entire post-war period is the balance between modern and traditional, with peaks of manifestation: the 1960s for modern architecture and the mid-1970s for a traditional approach. In the end, in contradiction to the obvious and intended rewriting and modernisation of the agro-pastoral landscape, the central rhetoric of architectural modernisation concluded on adopting traditional expression for rural architecture, either addressing the architecture of the civic centres or the domestic architecture. To such a rough perspective, other elements must be added: the modern-tradition debate with deep roots at the beginning of 19th century Romania; the push for modernisation of the overall rural world through the systematization process; the profound transformation brought by the socialist thinking; and the inevitable orientation of the postmodern world toward tradition.

In the late 1950s and early 1960s, with the increasing interest in developing standard typologies for all sorts of houses, the Design Institute for Standard and Type-Projects (IPCT, Ro.) created experimental designs for rural housing, displaying a more neutral homogenous expression. With only a few exceptions, modern aspect or non-regional reference designs were used in these first proposals for rural housing<sup>81</sup>. Until the mid-1960s, such small collective housing units of one or two floors were designed to be implemented in small and medium towns and rural areas<sup>82</sup>. Simultaneously, a series of proposals were issued by the same state design institute, for a wide range of public built typologies addressing regional patterns and details. This initiative echoed the studies published beginning in 1956 on rural architecture addressing different regions of the country<sup>83</sup> (fig. 10).

By the end of the 1960s, the preparations for the extensive process of rural systematization opened once again the interest for the modern-tradition debate, which had a large display in the interwar period. A first observation to be noted in this respect is that during the interwar period, the debate covered urban architecture, whereas rural represented the genuine depositary for the traditional sources, never attached to the idea of modern architecture. The architectural thinking of the interwar

CPCP. SANIC, Section CPCP, File 92/1975.

81. During the 1950s, the research of traditional architecture was grounded on the social realist thesis which dictated the use of national resources for the architectural form; such arguments are to be found in the introduction words of the publications emphasized in the reviews. The first such publication from the series STĂNCULESCU, GHEORGHIU, STAHL 1976.

82. PRUNCU 1956, pp. 16-17; PETROVICI 1963, pp. 10-11; PETROVICI 1965, pp. 44-45; STREJA 1965, pp. 46-47.

83. The appearance for displaying traditional architecture in rural areas is connected to the overall imposition of the socialist realist theme, which underlined the new condition of the architecture: „national in form, socialist in content”.

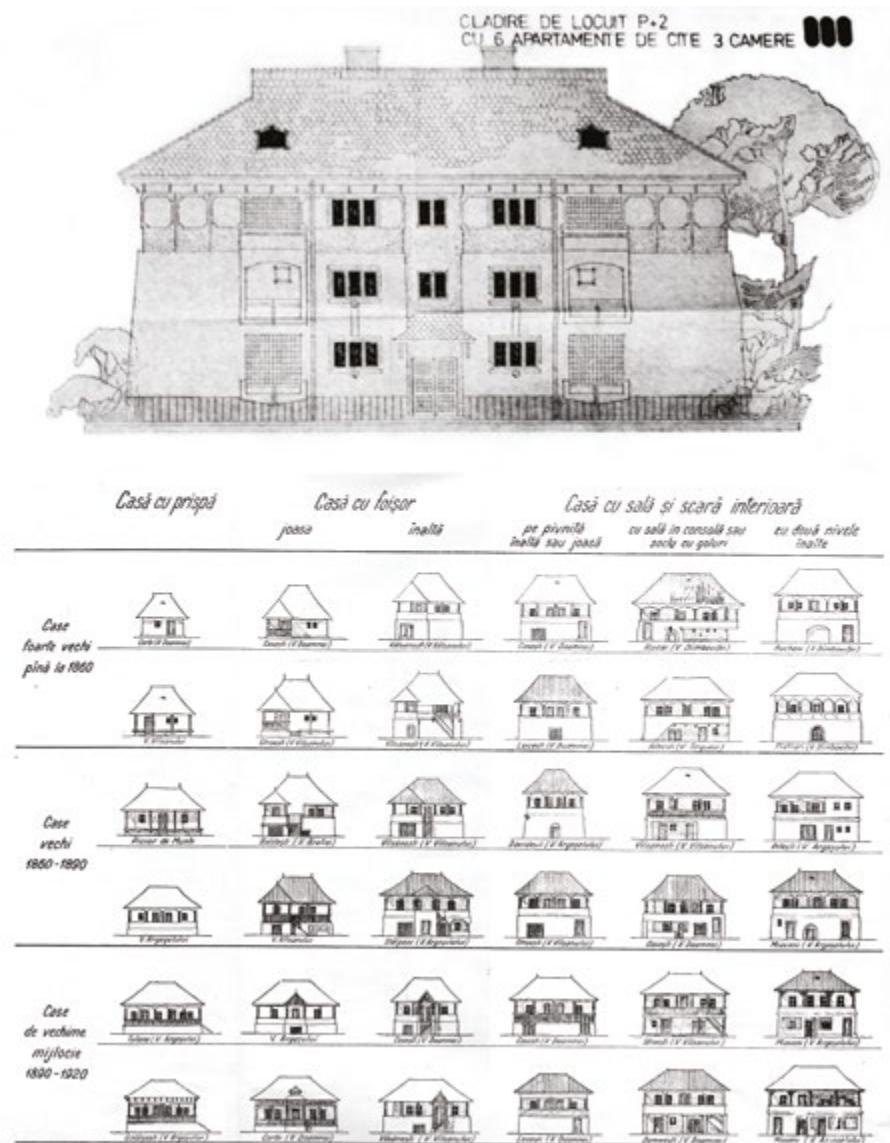


Figure 10. (Down):  
Proposal for apartment block - standard project  
n. 2240 drafted by  
Arges County Design  
Institute. ANR, CPCP  
- Systematization, File  
40/1978; (Up): Research  
of traditional house  
typologies in Argeș County.  
Gheorghiu, Petrescu 1954.

period continued to resonate in the post-war era, carried forward by clusters of architects trained by the older generation or through the voices of the architects who still represented professional authorities<sup>84</sup>. This continuity of thought underscored several issues and positions.

The anxiety towards the possibility of developing rural settlements in a modern architecture lacking local specificity, judging by the latter's achievements in mass housing, is present in many texts and articles. This would have led to "monotonomania" and a dull aspect, uncharacteristic of the variety of Romanian villages<sup>85</sup>.

The frustration towards the alterations of the new vernacular rural architecture, which lost its traditional features due to the contamination with urban modernity, was a critical issue that was debated until the late 1980s. It underlined both the artificiality introduced by the modern methods of design and construction in the rural areas<sup>86</sup> and the anaesthetic interpretations of the urban architecture manifested especially in the villages in the vicinity of the industrial towns. Different types of positions were present; accepting the urban influences over the rural world as an objective phenomenon and educating urbanised villagers to use and work with the new materials and techniques<sup>87</sup>, imposing control for suppressing the transgression of the typologies from urban to rural and from region to region and offering models conceived by the architects<sup>88</sup>, and reactivating the interwar discourse of reinterpreting the traditional architecture in a modern approach as a creative process<sup>89</sup> (figs. 11-12).

Beginning with the consolidation of the centralized planning system for controlling the systematization process, the state imposed the creation of standard design catalogues by the regional design institutes. It was a manner to emphasize the role of the local specificity of the projects. On many occasions, the younger generation of architects involved in the process of creating the models

84. Referring here particularly: Florea Stănculescu, Ioan Bauch, Adrian Gheorghiu (who will be cited further) and others who during the 1950-1960s continued the works for researching traditional (rural) architecture specific to the different historical regions of Romania. The work was a development of the interwar practices started in the sociologists' cluster of Dimitrie Gusti.

85. STĂNCULESCU 1969.

86. CAFFÉ 1987.

87. STĂNCULESCU 1969; STĂNCULESCU 1966.

88. BAUCHER 1977, p. 59; BAUCHER 1971.

89. GHEORGHIU 1967.

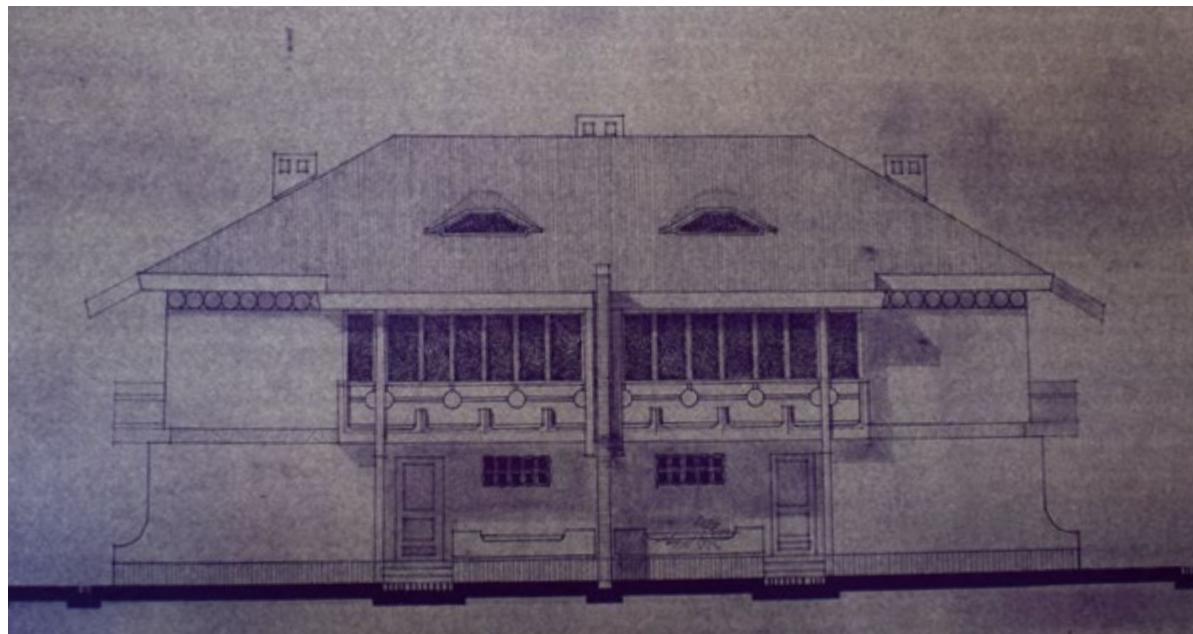


Figure 11. Adaptation of traditional architecture to modern construction techniques. Extract from the study of rural housing – private investments (ANR, CPCP-Systematization, file 392/1977).

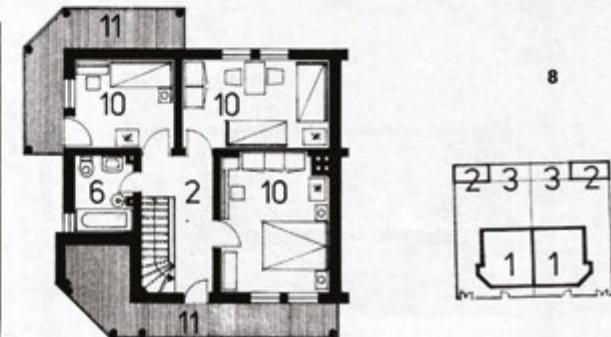
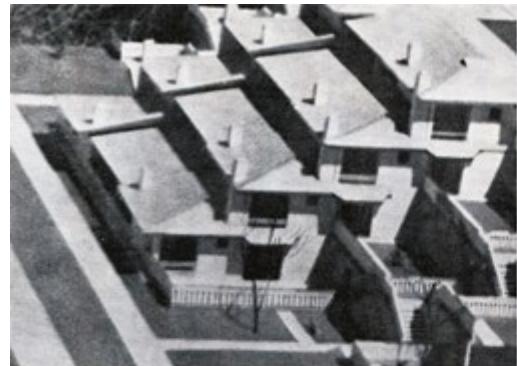


Figure 12. Standard Typologies for dwellings. Prahova County (Călin Hoinărescu, main architect) (Extract from an extended presentation. Călin Hoinărescu, 1980).

for rural housing was directly referencing the interwar generation of architects<sup>90</sup>, designing even similar proposals as considering the interpretation of the specific traditional rural features and construction materials.

The standard layouts were partially applied. When applied, in a high-density display and with the lack of diversity embedded in the idea of the repeating pattern despite their rural expression, it may be considered that the result would have led to the elimination of one of the most distinguishing features of the Romanian village: the spontaneous and vernacular process of development<sup>91</sup>.

#### *Antonești (Argeș County): Relocating and Building the “Model Village”*

One case study that bridges the two analysed historical moments is the village of Antonești, in Corbeni Commune (Argeș County) (fig. 13), summing a variety of state-controlled and guided interventions that transformed it into a “model project” at a territorial, social, and cultural level. The first phase, during the Antonescu regime in the 1940s, was triggered by the hydrogeological risks due to its proximity to the Argeș River that caused significant damages during the 1941 floods and, thus, the necessity of stabilizing the local community. The second one, during the communist regime, was due to the national electrification plan that transformed the valley’s landscape through the construction of hydroelectric power plants and all supporting infrastructures, such as dams, bridges, and roads, with effects in population deployment, displacement, and relocation.

In July 1941, following heavy rainfall, massive floods occurred on the rivers in the north of Arges County, drastically affecting the existing infrastructure as well as provoking considerable households’ damages: there were mentioned at least thirty-nine households totally or partially destroyed around the entire Corbeni Commune<sup>92</sup>. At the time of the floods, the commune was in an increased growth rate of population - from 2,168 residents signed at the 1930 census to 3,716 inhabitants in 1941, spread in seven villages over 8,500 hectares. After the floods’ devastations, the central and local authorities’ main intention was to settle the affected population in a more central area and to reduce the spread of the rural settlements<sup>93</sup>. This process offered the opportunity to implement a “model

90. STANCU 1982.

91. CAFFÉ 1987, pp. 56-57.

92. SANIC - Central Historical Archives, Section «Ministerul Lucrărilor Publice, Consiliul Tehnic Superior», file 1836/1943, 1857/1943.

93. SANIC, MLP CTS, file 1836/1943, f. 210.



Figure 13. The inhabitants of Romanian mountain villages still practice sheep husbandry. Each year, flocks of sheep cross the streets of Antonești model village for the annual "bath" (photos E. Țugui, 2022).

village" as quoted in the archival documentation<sup>94</sup>. Its new position, the further potential functional development and the overall concept of the settlement was decided by a committee appointed centrally and formed by the engineer Constantin Federovici - responsible for the national forestry domain exploitation, professor Gheroghe Focă - representative of the Royal Cultural Foundation, and architect Richard Bordenache - a member of the Superior Technical Council, a central institution subordinated to the Ministry of Public Works. The committee also decided as necessary, before giving any suggestions, the study visit of several similar cases where existing villages were destroyed due to natural hazards events and, thus, reconstructed through the state's initiative, among which Dioşti (Dolj County)<sup>95</sup>.

In August 1941, based on a ministerial decree, the architect Richard Bordenache<sup>96</sup> was commissioned to design the overall layout and buildings for the "model village." Bordenache proposed a new settlement defined by an orthogonal grid with a main development axis connecting the existing Corbeni village with the new railway station and the new civic centre. The dwellings (small, medium, and large typologies) were positioned in relation to the main and secondary access roads and compositional urban axes, while integrating traditional architecture features in a matter of form, construction techniques and materials, and folkloric facade decorations<sup>97</sup>. In this manner, the architect made direct reference to the rural regional traditions, even though standardised through the proposal of type-design dwellings, while proposing a controlled development of the new settlement based on a "systematization plan". The plan was introducing urban principles such as the public square and the recreational park for sports activities while inserting public institutions focused on local community civic life, education, social and cultural formation (e.g., schools, administrative

94. SANIC, MLP CTS, file 1857/1943, f. 44.

95. DRAGOEŞCU 2011, pp. 78-79, see first part of the text, above.

96. Richard Bordenache (1905 – 1982) is a reference figure for the architectural profession in 20<sup>th</sup> century Romania, showing continuity in his practice between the interwar and post-1945 period despite the drastic political shifts. Formed as an architect in Bucharest during the 1920s, Bordenache deepens his interest in architecture history and restoration with studies at the Romanian Academy School in Rome during 1930 and 1933. Since the interwar years, Bordenache occupied relevant positions in planning institutions, either at governmental level such as the Ministry of Public Works during the 1930s and 1940s, or in the socialist state design institutes after the 1949 reorganisation and centralisation of the architecture practice. Furthermore, after 1959 he occupied relevant positions in the Committee for the Historic Monuments. Despite his interest in historic built legacy, he accomplished numerous urban planning and architectural projects manifesting an interesting and experimental formal approach, nonetheless, contextualised with the different political regimes that his career encompassed.

97. SANIC, MLP CTS, file 1857/1943, f. 12.

buildings, police office, culture house, church)<sup>98</sup>. What appears interesting is the introduction of an additional function that was previously lacking, that of tourism. The medium and large dwellings, developed on two levels, had rooms designed for touristic rentals and temporary use<sup>99</sup>.

The design and construction of the new village was very fast (1942-1943) due to the involvement of leaders with high-ranking positions in the state, and with personal interest in the area that followed the design and the construction process closely<sup>100</sup>. However, due to the war and limited resources, strengthened by a precipitated political shift in 1944, the project was completed only partially and further abandoned in its initiative with unfinished and unused buildings<sup>101</sup>.

The next historical moment in which the entire area was transformed under the state's interest and involvement was during the early 1960s works for the construction of the Vidraru hydroelectric power plant and water reservoir, positioned ten kilometres upstream of Antoneşti village. In a political setting dominated by the communist regime's ambitions to transform the entire national territory in base of the industrialisation and urbanisation process, Antoneşti village, as well as its community, became local assets and resources for the process itself (fig. 14).

Being part of the larger national electrification plan declared in 1950 and implemented with certain delays, Vidraru water reservoir and hydroelectric power plant were built during 1960-65 and opened for production in 1966, while downstream, a series of other smaller such electric power infrastructures were built until the late 1960s. During the 1970-74 years, another relevant infrastructure project was implemented, the Transfăgărăşan road that was connecting southern Romania to Transylvania, passing the Făgărăşan Mountains. During this entire process, Antoneşti became the headquarters for all construction sites' management triggering specialist population deployment from all over Romania for the vast investment, such as civil engineers, topography surveyors, geologists, and technicians, while the local community was used as an unspecialised workforce. For the new and temporary community, the unfinished settlement and its partially unused buildings became an asset as the socialist state did not manage to fulfil the temporary

98. SANIC, MLP CTS, 1836/1943, f. 208-213.

99. SANIC, MLP CTS, 1857/1943, f. 9, 14-18.

100. The new rural settlement was built in direct connection with the existing village Corbeni (commune Corbeni), at only a few kilometers distance, and was named after Marshal Antonescu whose personal interest in the project was manifested from the very beginning. The locals used and still use the two different denominations to differentiate the new settlement (Antoneşti) from the existing one (Corbeni); SANIC, MLP CTS, file 1857/1943, f. 44-48.

101. SANIC, MLP CTS, file 1836/1943, f. 208.

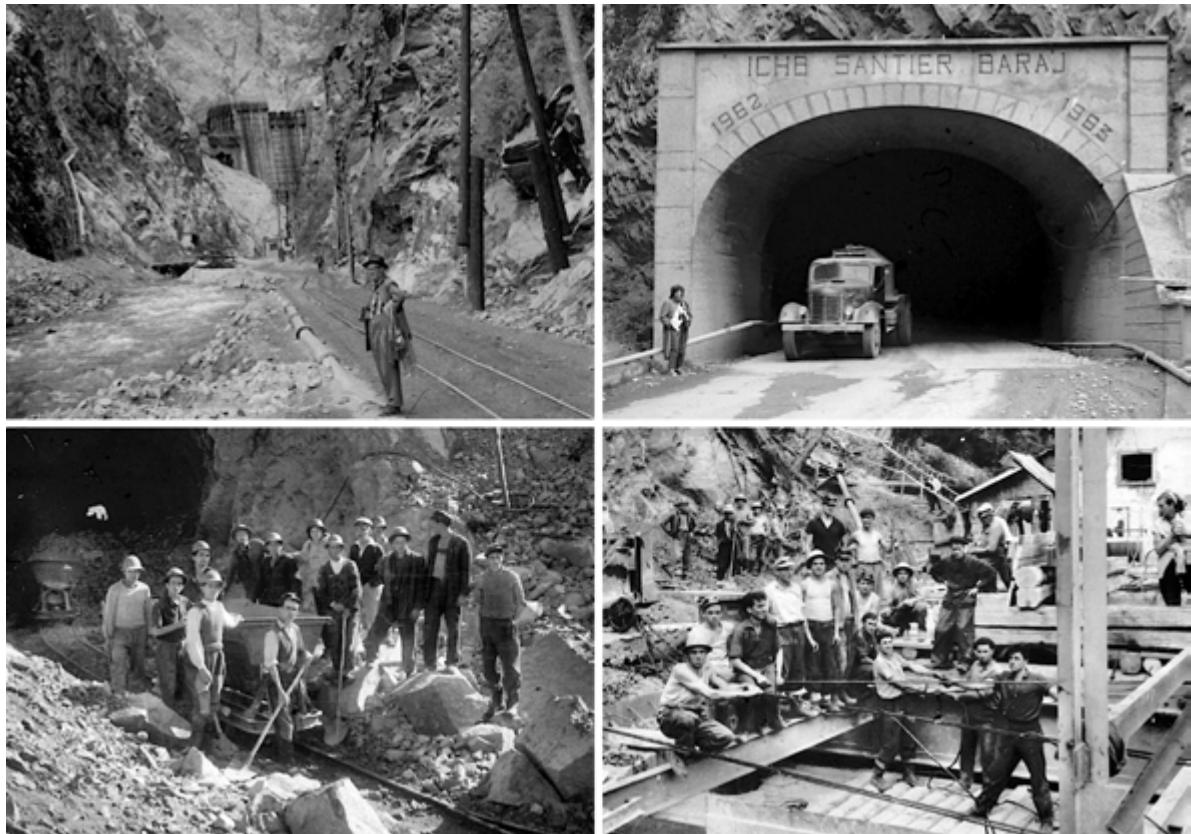


Figure 14. The construction works for the Vidraru hydroelectric power plant and water dam involved the deployment of a large number of specialists and workers. While the dwelling of the model village was ideal for housing the specialists, the new or unfinished public buildings became the ideal framework for the public facilities necessary for the entire new and temporary community. Photographs from the personal archive of Mrs. Imola Martonossy, daughter of Ing. Laurențiu Șomolik who worked at the Vidraru dam, The Ministry of Energy (30.05.2016), "Hidrocentrala și barajul Vidraru: 50 de ani de la inaugurare"; <https://energie.gov.ro/hidrocentrala-si-barajul-vidraru-50-de-ani-de-la-inaugurare> (accessed 17 July 2023).

needs for housing and social and cultural facilities. Therefore, the unfinished inn was completed and converted to accommodate the offices for the planners' team of the power plant, the administrative building was transformed to host cultural events with a cinema and performance hall, while the unfinished culture house was converted into the workers' and engineers' canteens. To respond to the requirements of the construction site and the extensive number of people displaced in the area, the clinic structure was turned into a hospital, with the adjacent buildings adapted to receive other medical services. Additionally, the constructions shaping the marketplace were filled with shops. The dwellings, designed with increased comfort compared to the traditional peasant houses<sup>102</sup>, were the ideal homes for the teams of engineers and technicians who were displaced with their entire families (figs. 15-16).

As the condition of the working class was privileged in comparison to the peasants' during the communist time, the presence of the high infrastructural investments in the area offered many opportunities to the locals, such as a proper supply of consumer goods, access to medical care, access to intense cultural events, and access to better education generally and specifically, by opening an industrial specialised high school where pupils were trained to become professionals or stimulated to attend university in larger urban centres. Furthermore, with the beginning of the construction sites, the peasants were recruited for the necessary work, first as unqualified workers. Afterward, they were offered the opportunity to obtain professional qualifications, with other occasions to labour in the neighbouring cities after the completion of Vidraru dam. Even though there were no rural systematization projects implemented in Antonești during communism, the applied political ideology oriented towards transforming the peasant into a worker through socialist culture and education impacted the later rural life of the local community which gradually abandoned the village and its built environment, in search for better urban-life opportunities. Furthermore, the socialist state interest in Antonești ended once with the completion of the dam and infrastructure works, adding a new layer of interpretation of the abandonment process.

In the present time, thirty-five years after the fall of communism, several main narratives dominate the destiny of Antonești village. One is linked to the nostalgic idea of the interwar incomplete "model village" and disrupted by the communist regime, with consequences in its current precarious state of preservation. Another is linked to a developmental unfulfilled prophecy of the village as a relevant

102. The typical traditional peasant house consisted of two rooms adjacent to a central hall used as an entrance room and for cooking, arranged along a narrow terrace. The hillside and the highland houses have the living spaces lifted from the ground, the ground floor being used as storage, with access from the outside.



Figure 15. A series of type houses were designed (1942) for the model village, of different sizes. The architecture was inspired by the local peasant dwellings, using interpretations of traditional decorative patterns. Some of the houses include rooms for renting, anticipating the touristic development of the region; nowadays, townsmen are moving to these dwellings, some investing in the extension of the buildings for guesthouses (photos E. Țugui, 2009-2022).



Figure 16. (Upper left): The building designed for the clinic was transformed into a hospital for the entire region; (Upper right): A cultural centre, with a cinema and performance hall, was hosted into the buildings designated for administrative functions, next to the hospital. (Down left): The construction designed for a hotel was initially transformed into an office building for the engineers working on designing the power plant and the water dam; later, the building was transformed into a high school, although it was not for the function; (Down right): The building designed for administrative purposes featured a tower as a benchmark, with a terrace on top, from which the entire valley can be admired. Except for the tower that accommodates a luxury touristic guesthouse, all other buildings are currently abandoned (photo E. Tugui 2009-2022).

touristic attraction anticipated in the 1940s design of Richard Bordenache, widely sustained by the socialist state during the 1970s and 1980s<sup>103</sup> and partially implemented during the post-1989 years through private investments and initiatives. From this perspective, the narrative of Antonești fits perfectly in the trend quoted by the geographer David Turnock concerning the shift in perception and significance of the Carpathian Mountains through the socialist state's investments and projects<sup>104</sup>, becoming accessible to the masses while still presenting remoted, marginalised and abandoned rural settlements and communities.

### *The Rural “Local Specificity” Lost and Found in Marginalised and Abandoned Areas*

In 2016, the Romanian government, in collaboration with World Bank, drafted the first Atlas of rural marginalised areas<sup>105</sup>. Its main purpose was to define an operative working tool regarding the national strategy of social inclusion and poverty reduction by 2020, in an overall scenario in which the rural settlements cover approximately 87% of the national territory with a concentration of approximately 46,14% of the Romanian population<sup>106</sup>. The Atlas stressed the fact that the highest poverty percentage is concentrated within the rural environment, sustained by an overall diffused shrinkage phenomenon observed in a matter of depopulation, economic, social, and cultural degradation and marginalisation<sup>107</sup>. After this moment, further national initiatives were directed and focused specifically on the sustainable development of the rural areas from the social and economic perspective (*spațiului socioeconomic rural*, Ro.)<sup>108</sup>. However, despite the overall shrinkage phenomena, few are the cases in which nowadays is signaled the complete abandonment of the

103. Many socialist newspapers such as «Scânteia tineretului», «Flacăra», «România liberă», and «Apărarea patriei» published numerous articles during 1960s and throughout the 1980s in descripting the major infrastructural and systematization works on Arges River, promoting them as a touristic point of interest.

104. TURNOCK 2006, pp. 157-206.

105. TESLIUC, GRIGORAŞ, STĂNCULESCU 2016.

106. *Strategia națională*, 2020, p. 4. In 2019, 46,14% of the Romanian population was living in rural areas.

107. Especially regarding the former mono-industrial settlements of small and medium sizes, that gather both profoundly rural and urban environments, defined by minor differentiations in a matter of built environment manifestation and living habits, and rather differentiated in a matter of rural or urban status in base of the classification indexes (i.e., number of inhabitants, urban density, and economic profile); PĂUN-CONSTANTINESCU 2019.

108. *Programul National de Dezvoltare Rurală 2014-2020; Planul National Strategic 2021-2027*; \*\*\* ESPON – ESCAPE 2020.

rural settlement, such as the case of the Czech villages from the Mountainous Banat area<sup>109</sup>. Other areas underpass a complete transformation due to the influx of capital but not of inhabitants (i.e., Tara Oașului, Maramureș, Saxon Villages from Transylvania, etc.) with a direct impact on the built environment due to the modernisation process under the need of improving the living conditions and necessities, sustained by the shift in built models (i.e. dwelling typologies, construction materials, and techniques) with consequential effects on the overall layout of the rural settlement and surrounding landscape<sup>110</sup>. This gradual alteration of the rural environment appeared more evident during the post-1989 years defined by increased population mobility: the ever-growing migration process towards both the relevant Romanian urban centres and, most significantly, abroad.

This recent process of rural transformation and transfiguration stimulated once again the architectural profession response through a national initiative coordinated by the Romanian Architects Order and focused on the regulation of the rural environment, perpetuating the idea of controlled rural development and transformation. Starting with 2014, the OAR's RURAL working group<sup>111</sup> drafted a series of guidelines covering almost all rural areas around Romania, summing a total of fifty-six handbooks drafted in a quite dynamic and simple graphical explanatory representation of the accepted/rejected interventions<sup>112</sup>. The main target group of these handbooks are local and regional actors such as local communities, administrations, and investors. As stated by the organization itself, the main idea was to maintain and preserve the "local specificity" of rural settlements within a wider national strategy of stimulating rural sustainable development through the enhancement of its cultural landscape, considered as a social, cultural, and economic asset. Each handbook regards an ethnographic area defined by common built typologies and rural traditions, even though rarely described and presented. Further, if analysed the structure of these handbooks, rarely is referred to the previous historical development of the rural settlements in reference to their geospatial and

109. SILVIU *et al.* 2011; SANTRUCKOVA *et al.* 2014; JACAB, PETI 2018.

110. Documentation project *Mândrie si Beton* and *Mândrie si Beton după 10 ani*; GALLUZZO 2017.

111. Since 2014, the Romanian Chambers of Architects developed a thematic working group (*Grupul de lucru RURAL*, Ro.) focused on analyzing and regulating the rural transformations occurred after 1989, with its objectives in maintaining and preserving the rural heritage while promoting a new rural architecture in respect with the local rural traditions. Currently, RURAL working group is composed of the architects Eugen Vaida (coordinator), Duvagi Ignis Nejla, Gingirof Marina Veronica, Niculae Lorin Laurentiu, Zaharia Cornelia, and Zaharia Laura; <https://oar.archi/proiecte-oar/grupul-de-lucru-oar-rural/> (accessed 15 September 2023).

112. *Ghiduri de arhitectură pentru încadrarea în specificul local din mediul rural*; <https://oar.archi/buna-practica/ghiduri-de-arhitectura/> (accessed 15 September 2023).

territorial configuration and/or architectural phases of manifestation and transformation<sup>113</sup>. The “traditional Romanian village” (*satul românesc tradițional*, Ro.) and the “local specificity” (*specificul local*, Ro.) became two main and generic references that guided the drafting of these guidelines, lacking a detailed explanation from a historic-based perspective of the concepts (figs. 17-18).

As illustrated in this study, the initiative appears to come in continuity with the overall preoccupation for the rural transformations throughout the 20th century. It seems that the architects and planners continuously searched for a certain formal exploration of the rural built environment manifestation, mixing and overlapping the experimentations in regulating and controlling its development while continuously researching for its vernacular folk tradition understood as local and regional ethnographic specificity. This professional stimulus in questing for the “model village” appeared continuously as a response to the state’s policies intended to solve the threat of disappearing of the rural settlement through depopulation and abandonment. Surprisingly, the rural transformation through a controlled and regulated modernisation should have assured its safeguarding while bringing order and comfort. Nevertheless, the consistently state’s abandonment of the many unaccomplished projects of intervention due to limited resources, numerous political shifts, as well as its applied policies oriented towards the modernisation and radicalisation of the “peasant class” throughout the 20th century triggered another process of abandonment.

The obsession with identifying the local specificity and search for a “model (rural) project” proved to have generated a certain standardisation of the rural architecture which perpetuated the models in base of the time initiatives and which, by now, became part of the present built legacy of the rural world. The OAR handbook appears to mention the difference between new rural (controlled) interventions and the preservation of the existing built environment, even though the latter remains generically presented under the label of traditional rural architecture and heritage. How much the traditional rural architecture was transformed directly throughout the 20th century is still to investigate through a placed-based and history-based research methodology.

113. Only the few Handbooks focused on different ethnographic areas of Transylvania and Banat present a short historical background of the rural area of interest through the presentation of historic maps and references to the existing literature concerning their historic evolution and transformation. Probably it is not a coincidence that Transylvanian and Banat rural realm was intensely analyzed from a historic perspective from the beginning of the 20th century, coinciding with the opening of the ethnographic museums in Sibiu (1905, shut down in 1950 and reopened in 1963) and Cluj-Napoca (1922). Furthermore, among the authors of these Handbooks can be identified specialists in architectural preservation, differently from the elaboration group of different ethnographic areas from south or east Romania.



Figure 17. (Upper images) The “local specificity” of rural settlements from South Dobrogea illustrated through a spatial analysis at settlement level. (Down images) Geometrical and material survey of a rural dwelling from Mangalia (South Dobrogea), followed by recommendations of terrain occupancies of new buildings and their relation to existing rural dwellings (in green – accepted solutions, in red – examples that go in contradiction with the “local specificity”) (Ghid de arhitectura 2016).



Figure 18. (Upper images) Illustrations of the Saxon village's specific cultural landscape. (Down images) Illustrations of the accepted (green) and non-accepted (red) interventions on the existing built environment from the Transylvanian Saxon villages (*Ghid de arhitectura* 2017).

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# LOST AND FOUND

Processes of abandonment of the architectural and urban heritage  
in inner areas. Causes, effects, and narratives (Italy, Albania, Romania)



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## Ricostruire identità. Un approccio territory-based per contrastare l'abbandono nella Valle del Drino (Albania)

Gjergji Islami (Polytechnic University of Tirana), Denada Veizaj (Polytechnic University of Tirana)

*Dalla caduta del regime comunista, l'Albania ha affrontato processi di trasformazione che hanno profondamente segnato sia i centri urbani che i territori rurali. Le aree rurali hanno subito un progressivo abbandono, in gran parte a causa dei radicali cambiamenti nel sistema economico e nello status della proprietà terriera agricola, con conseguente prolungata crisi nel settore. Basato sui concetti di paesaggio culturale e governance di rete, questo articolo conduce un'analisi dei potenziali storici, culturali, economici e territoriali delle aree rurali. La comprensione del territorio, della sua morfologia, della struttura degli insediamenti rurali e della loro evoluzione nel tempo, ha costituito la base per la ricerca finalizzata alla costruzione di un modello di sviluppo sostenibile. Le identità locali, le catene economiche storiche e la morfologia del territorio sono state identificate come i pilastri di una potenziale strategia di sviluppo mirata a ripristinare le vocazioni naturali del territorio. Lo studio si concentra sulla valle del fiume Drino nel sud dell'Albania, una regione complessa che ben esemplifica i processi demografici e le dinamiche di trasformazione degli ultimi decenni. Questo lavoro è iniziato con il progetto "100 Villaggi", supportato dal governo albanese e dall'Agenzia Nazionale per la Pianificazione Territoriale e ulteriormente ampliato grazie a una collaborazione con il Politecnico di Torino e l'ETH di Zurigo. Più recentemente, con un focus sullo spopolamento e l'abbandono, la ricerca è stata supportata dal progetto RIBA Lost and Found, promosso dal Politecnico di Milano.*

# LOST AND FOUND

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# Rebuilding Identities. A Territory-based Approach to Face Abandonment in Drino Valley (Albania)

Gjergji Islami, Denada Veizaj

This article presents the efforts of introducing in the Albanian context a model of rural regeneration that integrates concepts of cultural landscape theory with those of network governance. As a need to cope with the dilemmas of the post-communist transformations (more specifically depopulation), the Albanian government initiated a rural regeneration program named “100 Villages”, which methodologically was founded on a point-based model of development, known as territorial acupuncture<sup>1</sup>. As an alternative to this model, our proposal constructs economic-rural regeneration models based on territorial-regional notions, which are a result of references to cultural landscape and network governance notions<sup>2</sup>. The application of these concepts has facilitated a comprehensive understanding of the territory, providing us with tools to develop more sustainable rural regeneration scenarios.

## *1. Overview of demographics in Albania*

In order to comprehend the intricacies of landscape and territorial transformation within the Albanian countryside, it is imperative to pause for a moment and elucidate the robust dynamics that

1. KRYEMINISTRIA 2018.

2. Notions discussed by FARINA 2000; KLIJN, KOPPENJAN 2014; MOORE, WHELAN 2016.

have engrossed the country in recent decades. Starting in 1944, Albania experienced two distinct periods closely linked to changes in the social, economic, and political environment.

The first period corresponds to the postwar developments that followed the establishment of the communist regime, which endured until the early 1990s. During this era, owing to population policies, advancements in healthcare, and the stringent isolation measures that limited emigration, the country witnessed a substantial population surge, nearly tripling in the span of 45 years. The population, which stood at 1.12 million in 1945, rose to 3.29 million in 1990<sup>3</sup>, marking a historical peak for Albania.

The second period commenced in 1991 with the collapse of communism, the introduction of a free-market economy, and the newfound freedom of movement. The significant wave of emigration that began in the early '90s persisted and continues to the present day. According to the National Institute of Statistics (INSTAT), Albania's population has decreased to 2.40 million as of September 2023<sup>4</sup>, representing a 27% reduction compared to 1990. The primary drivers of this emigration trend are economic conditions, unemployment, and issues related to corruption and the malfunction of the justice system. Albanians predominantly emigrate to EU countries such as Italy, Greece, Germany, as well as the UK and the US. The phenomenon remains active, and recent studies confirm the perception that Albanian youth are notably more willing to leave their country when compared to the region<sup>5</sup>. Since the 1990s, Albania stands out as one of the most migration-affected countries in Europe<sup>6</sup>.

While the depopulation of the country is evident, rural areas are experiencing a notably more severe phenomenon. As illustrated in figure 1, the urban population has demonstrated consistent growth over the past 75 years, whereas the rural population has undergone a rapid decline after 1990. Although emigration has impacted both urban and rural areas, internal migration has balanced the depopulation effect in urban centres. One of the obvious outcomes of such processes is the continuous abandoning of rural settlements.

Today, the rural population of Albania is lower than it was 70 years ago, constituting only 35% of the country's total population. In terms of population distribution, in 2009 Albania shifted from being predominantly and historically rural to having a majority of the population in urban areas<sup>7</sup>.

3. WORLD BANK 2022.

4. INSTAT 2024.

5. JUSIĆ, NUMANOVIĆ 2017, p. 52.

6. KING 2005, p. 133; BANJA 2019, p. 94.

7. WORLD BANK 2022.

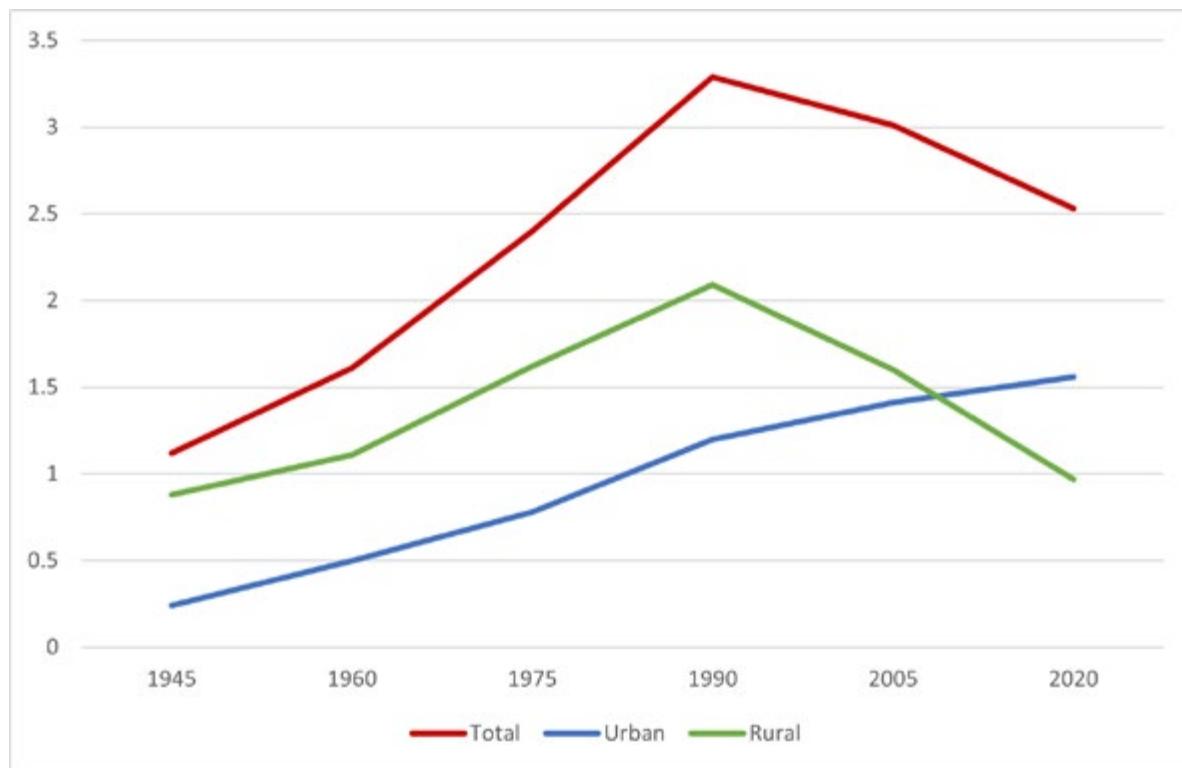


Figure 1. Population (in million) in Albania 1945-2020 (Elaboration by G. Islami based on the interpretation of data obtained from INSTAT and World Bank).

### 1.1 Principal causes of rural depopulation

In the past three decades, the rural population in Albania has witnessed a significant decline, with more than 50% decrease compared to 1990<sup>8</sup>. Living in the countryside poses challenges for various reasons. In rural areas, income levels are notably lower than in urban centres. The primary drivers of internal migration to cities or emigration are the poor quality of life, inadequate infrastructure, limited access to public services, and challenging economic conditions. The rural economy has failed to compete effectively and gain access to markets. On the other hand, seasonal emigration of agricultural workers, (such as to Greece), remains a more profitable option.

The immediate aftershock of the fall of communism was the collapse of the agricultural system, which consisted of 652 state-run farms and agricultural cooperatives, each with an average area of over 1000 hectares. In 1991, Law 7501, "On agricultural land," was enacted with the aim of relaunching the rural economy by ending the era of cooperatives and redistributing state-owned agricultural land. Despite the positive intentions behind this law, it led to the fragmentation of land into 467,000 micro-farms, averaging just 1.3 hectares each. These micro-farms were often divided into non-adjacent parcels, rendering them insufficient to sustain a profitable agricultural industry<sup>9</sup>.

The implementation of the law was slow and gave rise to persistent issues concerning ownership rights and the distribution method. Furthermore, the deterioration of agricultural infrastructure and the absence of investments in subsequent years compounded the problems, resulting in an underperforming industry. As noted by Civici, Albania undertook the most radical agricultural land reform in Eastern Europe<sup>10</sup>. In these circumstances, the opportunities to reestablish a flourishing agricultural sector with mechanization, proper irrigation infrastructure, and clear land parcel management are significantly constrained. Nevertheless, agriculture and the rural economy remain important sectors in Albania's economy, accounting for 38% of total employment (2019) and a substantial portion of the national GDP, both of which exceed the EU average significantly<sup>11</sup>.

Besides agriculture, which has faced a prolonged crisis in recent decades, rural areas had limited alternatives for development. Albania did not have a tradition of rural tourism, which has emerged as a new opportunity in recent years.

8. WORLD BANK 2022.

9. CIVICI 2019.

10. *Ibidem*.

11. AZIZAJ 2019.

## 2. Evolution of the territory-settlement relationship in Albania

The theoretical examination of the rural environment is relatively complex, primarily due to the ambiguity surrounding its definition and interpretation. Various scholars have distinct perspectives on rurality, with some primarily connecting it to the production process, while others view it simply as a variation of the urban and transformative process of the natural territory.

Doxiadis observes that there is still a lack of a systematic approach to comprehending cities<sup>12</sup>, and as a consequence, what is not considered city. On the other hand, Schmid asserts that urbanization is a polymorphic process that involves various levels and encompasses a wide range of situations, from the production of the built environment and the formation of urban centres and suburbs to the dynamics and daily changes in territorial regulation. According to him, urbanization should be understood as the entirety of transformative processes of the natural system, processes that generate the built environment<sup>13</sup>. In this context, rural settlement does not enjoy a separate classification but is presented as a distinct form of territorial transformation.

In this study, we perform an analysis of rural territory through the lens of cultural landscape concepts. Human society and nature are the two main forces that shape landscape structure and drive landscape-level processes. Cultural landscapes are geographic areas where the relationships between human activity and the environment have created ecological, socioeconomic, and cultural patterns<sup>14</sup>.

On the other hand, the importance of such analysis relies in opening new doors in terms of rural regeneration strategies. As Naveh admits, paradigms developed by the field of landscape ecology can be used to explain the ecological relevance of cultural landscapes and their capacity to inform and guide other human activities, especially in the economic sphere<sup>15</sup>.

The following listing of historical facts is not a historical analysis per se; rather, it is an examination of the relationships between settlement systems, production systems, and natural systems. Through a chronological sequence of transformative processes of Albanian rural territories, the paper attempts to build the concept of territorial identity, expressed through the notion of architecture of territories, seen as the entirety of tangible and intangible dynamics established over time.

12. DOXIADIS 1968, p. 2.

13. SCHMID 2015.

14. FARINA 2020.

15. NAVEH 2008.

There are documented traces of the nature of Albanian villages in the pre-Ottoman period, around the 12<sup>th</sup> to 14<sup>th</sup> centuries. Muka asserts that in the Early Middle Ages, the Western Lowland appeared as the most prosperous region. The chronicles of the time depict natural territories with dense populations, such as the plains, as well as the inner valleys of rivers in mountainous areas. Most settlements during this period are found in hilly areas, at the foot of the mountains, on their slopes, or along the rivers<sup>16</sup>. Manzour further affirms that data from pre-Turkish medieval times indicate territorial groupings of villages based on localities and ethnographic regions<sup>17</sup>. Biçoku also notes that from the records of the time, the economy of medieval Albanian villages appears well-developed, with primary activities centred around grain cultivation, orchards, gardening, and vineyards<sup>18</sup>.

Another important factor concerning economic characteristics, linked to spatial morphology, is the creation of levels of mountain villages. According to Muka, from a single plain where the old village was initially founded, often around a religious or burial site (frequently referred to as the old village), the village's structure gradually stratifies based on the primary modes of agricultural production. In parallel with the growth of the village, the introduction of new agricultural cultures (such as maize) influenced the emergence of a stratified structure of the settlement. Many old villages were relocated in terms of altitudes or established secondary settlements, a phenomenon that became more evident during the 17th century<sup>19</sup>.

It is important to emphasize that the economy operated at a regional level, with sub regions and localities functioning as complementary entities. A similar pattern is observed even during the Ottoman era.

Unquestionably, it can be affirmed that the socialist era exerted the most profound impact on the natural (and rural) landscape. The centralized economic system manifested itself across the territory through the iconographic imagery of an agricultural sector transitioning towards industrialization, comprising both the flatlands and hilly areas. In addition to the gradual metamorphosis of these depictions (shifting from autonomous and localized territorial systems toward a national-scale planning paradigm), there have also been distinct transformations in the relationship between settlement and the natural environment mainly diminishing the role of the cultural regions and of their historical links.

16. MUKA 2007, p. 29.

17. MANZOUR 1827, p. 195.

18. BİÇOKU, FRASER 2005, pp. 12-16.

19. MUKA 2007, pp. 31,36.

As stated in “Bujqësia në Republikën Popullore Socialiste të Shqipërisë” [Agriculture in the Popular Socialist Republic of Albania], until 1944 « [...] land was managed based on the concept of feudal ownership and the Chiflik<sup>20</sup> system. The major landowners, constituting only 3% of families, controlled 40% of the land. »<sup>21</sup>. Starting in 1944, a series of reforms were initiated, gradually collectivizing agricultural land, and reorganizing it into state-farms and agricultural cooperatives.

Many new rural residential centres were designed ex-novo, to serve the new economic structures. Particularly after the 1970s, the tendency to preserve mountainous and remote areas from depopulation was expressed in planning strategies for rural settlements<sup>22</sup>. These strategies aimed at intensifying areas inhabited near natural resources, forests, energy sources, etc., facts reflected in the urban consolidation of existing villages in these areas, as well as in the planning of new ones.

According to a study by the Institute of Studies and Design<sup>23</sup> in 1987, villages were classified as small (up to 500 residents), medium (500-1000 residents), large (1000-2000 residents), and very large (over 2000 residents). From a strategic perspective, the goal was to increase the percentage of villages with more than 500 residents, implying the densification of existing villages. Meanwhile, in the flatland areas with intensified agriculture, there was guidance to construct medium and large villages<sup>24</sup>. According to King, two-thirds of the population were kept in villages to provide labour force for the farms, thus contributing to the densification of rural settlements and impeding the rural-urban migration<sup>25</sup>. In terms of spatial morphology and composition of rural settlements, there have been several evolutions. The planning anticipates the functional diversification of centres, whether they are existing villages or new ones. Referring to the social and urban centre as the principal space in the village, the same study states, «The formation of an ensemble with artistic value is a strong reflection of the role that mass activities have played during the years of People's Power»<sup>26</sup>. This assertion is reflected in the equipping of village centres with cultural facilities, where beyond entertainment, communist propaganda was conveyed. The socialist village was conceived as a compact settlement organized around a cultural and administrative centre that was meant also

20. Çiftlik (chiflik): Turkish term for a system of land management in the Ottoman Empire.

21. SHTËPIA, PROPAGANDËS, BUJQËSORE 1982, p. 8.

22. I.S.P. Nr.1 1987.

23. *Studim për projektnormativat* 1987.

24. *Ivi*, pp. 4-6.

25. KING 2015, p. 136.

26. *Studim për projektnormativat* 1987, p. 11.

to provide social control<sup>27</sup>. Another significant difference in morphological and spatial aspects is the approach to newly designed residential areas. In old villages, there is an organic relationship between the built form and the territory. In contrast, the new residential units exhibit a rigid geometrization of building blocks, indicating a lack of sensitivity to the contextual environment. Furthermore, pre-socialist villages maintain a compact, family-oriented structure, with neighbourhoods defined by surnames and inhabited by relatives. Contrarily, socialist villages lack clan-based structure and instead feature heterogeneous neighbourhoods that often exude an urban rather than a rural atmosphere in terms of composition.

The strongest development feature of post-communism in Albania was the demographic shift, and as highlighted by Streule et al. and Topalovic, it remains the principal catalysts of natural territorial transformations<sup>28</sup>.

One of the most evident traces of such phenomena over the territory was the blurring boundaries between urban and rural environments. Instead of clearly defined and planned boundaries, intermediate zones that facilitate a gradual transition from rural to urban environments have emerged. These zones materialized in various typologies of settlements, mostly including informal constructions and/or poorly built areas along road axis and margins of urban centres.

After the fall of communism, the Albanian countryside is confronted with the following major challenges:

- Depopulation and the abandonment of rural settlements;
- Lack or degradation of public services;
- Deterioration of agricultural infrastructure;
- Reduction of arable land due to informal urbanization;
- Low performance and lack of competitiveness of the rural economy.

The present-day countryside is a complex amalgamation of different realities in terms of imagery, ranging from wild landscapes to the iconic elements of a Mediterranean cultural scenery, to the post-industrial landscapes of socialism, as well as the images of a territory overtaken by spontaneous urbanization.

27. ISLAMI, BURDA 2019, p. 114.

28. STREULE et al. 2020; TOPALOVIC 2020 pp. 301-304.

### 3. Case study - Drino valley

In 2018, the Albanian government launched the national program "100 Villages", aimed at directing attention toward rural development, in what is referred to as "Rural Renaissance"<sup>29</sup>. The most obvious symptoms of the collapse affecting rural settlements were the lack of infrastructure and public services, depopulation, and the crisis in the agricultural sector. The program, led by the National Territorial Planning Agency, sought to formulate development visions for 100 selected pilot villages.

The preliminary study and the development models for the villages of Zhulat, Dhoksat, Saraqinisht, Labovë e Kryqit, Lazarat, Nepravishtë, and Sotirë (fig. 2), chosen as settlements with high development potential in the Drino River valley (fig. 3), were entrusted to the Polytechnic University of Tirana. Although being a specific region, the sample of the valley represents an optimal and comprehensive illustration of the transformation processes that the rural territory has undergone in recent decades.

The "100 Villages" program follows a series of similar initiatives from European countries with a focus on rural territory and its challenges. The program is methodologically articulated around the concept of territorial regeneration through acupuncture<sup>30</sup>, thus, has provided a uniform reading of the territory at the national level, neglecting regions and local characteristics. As an alternative to this approach, we have proposed an analytical method and, subsequently, a development model built on the concept of the region and localities.

Methodologically, the analysis of the context and, further, the scenarios for rural regeneration are based on the integration of cultural landscape and network governance concepts<sup>31</sup>. The approach to the valley as a cultural and territorial identity has framed the regional scale of the regeneration strategy. On the other hand, the proposal of a bottom-up and collaborative development model transforms local communities into significant development actors. The work was led by the authors of this article, who supervised the academic workgroups and created a model based on the reconstruction of local identities. As mentioned, the approach was founded on the concept of viewing villages not as isolated entities but as integral components of a broader territorial system. The development model

29. The Albanian government had previously undertaken the initiative "Urban Renaissance", which resulted in intensive investments in the transformation of urban centers in cities.

30. KRYEMINISTRIA 2018.

31. Notions discussed by FARINA 2000; KLIJN, KOPPENJAN 2014; MOORE, WHELAN 2016.

focuses on the synchronization of the villages' potentials and their specialization within the various systems established in the Drino Valley, highlighting its distinctive character and historical identity.

### 3.1 Territorial overview

The Drino River Valley constitutes a territory encompassing a natural, cultural, and economic system that has evolved over time along the river's course. The scenery is defined by mountainous landscapes on either side that descend to the riverbed, where human settlements have existed since ancient times. The valley has long served as a vital communication corridor between territories that today are shared by Albania and Greece.

In antiquity, the area was part of the region of Chaonia<sup>32</sup>. Today, it is dominated by the city of Gjirokastër<sup>33</sup>, a historic and touristic centre in southern Albania, along with a series of rural settlements that have developed along the banks of the Drino River. The region's geographical and climatic characteristics appear to have played a crucial role in shaping its natural physiognomy and subsequent development. The valley, situated at an elevation of 200 - 270 m above sea level, stretches for more than 42 km across Albania between two mountain ranges<sup>34</sup>, with a southeast-northwest orientation. The primary hydrographic artery is the Drino River, which is also a major branch of the Vjosa River<sup>35</sup>, both in terms of length (84.6 km) and the surface area of its catchment basin (1324 km<sup>2</sup>).

The Drino River traverses the space between the mountain ranges, creating a breathtaking and dramatic landscape. The villages are scattered across diverse territorial settings including typical flatland villages, those situated at the foothills on gentle terrains, as well as hidden villages in the deep mountainous areas. It seems that the altitude above sea level is a significant factor, among others, in defining the characteristics of the rural economy in these villages.

The history of settlement development witnesses a long-standing relationship between humans and the territory. Early traces of settlements can be found in archaeological evidences in places like Sotirë, Selo, Vodhinë, Terihat, Sofratikë (Adrianopoli), Paleokastër, Goranxi, Derviçan, Çepun, Kardhiq, Lazarat, Shtepëz, Lekël, Erind, Saraqinisht (Antigone), Suhë, Libohovë, Melan, Labovë e

32. BUDINA 1974, p. 343.

33. The historical center of the city is part of the UNESCO World Heritage List.

34. The eastern border is defined by the Lunxhëri - Bureto mountain range, while the western border is marked by the Mali i Gjerë [Wide Mountain] and partly the Kurvelesh mountains.

35. River in southern Albania, considered the last wild river in Europe.



Figure 2. Illustration of the settlements. From left to right: Top – Zhulat, Lazarat, Dhoksat; Bottom – Sotirë, Labovë e kryqit, Nepravishtë (photos 100 Villages Academy - Team Lot 18 & Lot 19).

kryqit, Peshkëpi, and others<sup>36</sup>. Their distribution across the territory also reveals the strategy of their residents: during times of peace, inhabited centres expand into open fields, while in challenging times, settlements occupy high points with panoramic views, allowing visual control over the valley. This strategic placement is particularly noticeable in locations like Antigone, Melan, the Castles of Labova, Kardhiq, Libohovë, and Shëntriadhë, all of which serve as vantage points for observing the entire valley. The combination of fertile land alongside the Drino River, with the physical protection and climate offered by the gentle hills and mountains, created ideal conditions for the development of settlements.

The presence of numerous religious buildings in the valley, especially Orthodox Christian churches, attests to the intensification of human activity during the Medieval period. In this era, settlements expanded in size and engaged in increased interaction with one another, driven by factors such as geographical proximity, cultural affinity, and economic cooperation. The network of historical pathways that connected villages and territories is still visible today and, in some cases, still in use.

The valley represents a clear and evident case of how the physical and intangible dimensions of a territory act together. This dynamic interplay is manifested through various facts and events, continuously shaping the region's uniqueness. Over centuries, this ongoing interaction has defined the characteristics and boundaries of the valley's cultural landscapes. These landscapes, distinguished by their strong identities, illustrate the relationship between human activity and the environment, creating distinct ecosystems and socioeconomic patterns. Five cultural and territorial entities stand out: Lunxhëria, Zagoria, Pogoni, Dropulli, and Labëria (fig. 4). Historically, these entities have developed economic interdependencies. This observation, derived from territorial analysis, will methodologically guide the development of the rural regeneration model.

### *3.2 The historical economic chain*

The Drino Valley remains an ideal illustration of the translation of territorial features into specialized settlements. Evidently, the villages near the valley or at the foothills have historically preserved and developed an economy based on agriculture and fruit growing. Meanwhile, villages situated above 700 meters above sea level, such as Stegopol, Saraqinisht, Sheper, etc., predominantly engage in livestock farming. Beyond individual characteristics, the villages are grouped into historical-cultural and economic entities, such as Lunxhëria, Zagoria, Pogoni, Dropulli, and Labëria (fig. 4). It is remarkable how within a relatively small spatial extent, diverse cultural

36. BUDINA 1974, pp. 346-367.



Figure 3. Aerial view of the valley of Drino (photo 100 Villages Academy - Team Lot 18 & Lot 19).

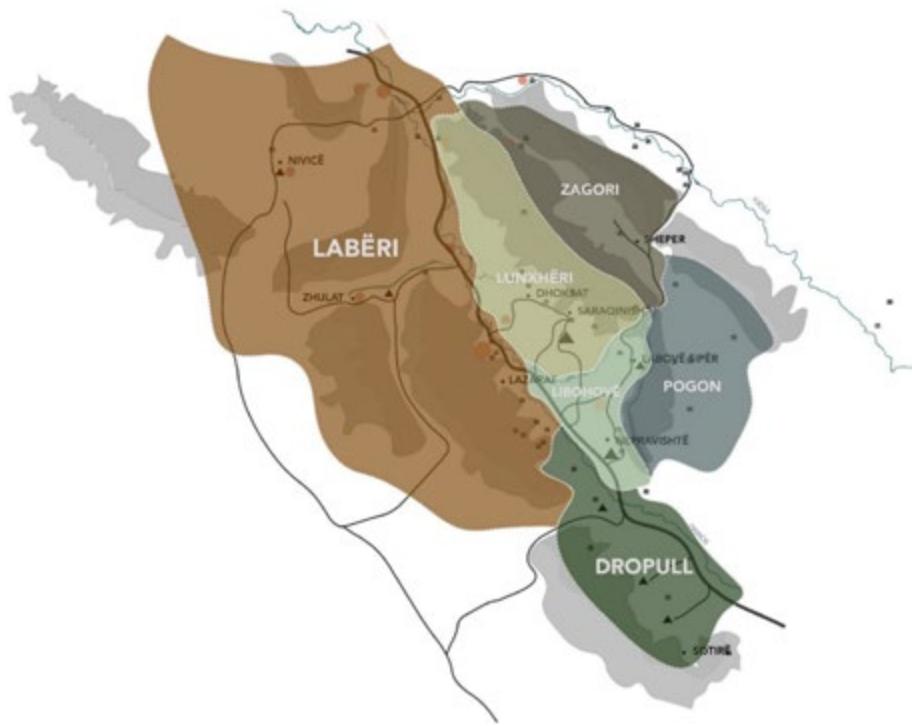


Figure 4. The historic and cultural territorial entities (image from 100 Villages Academy - Team Lot 18 & Lot 19).

and social identities coexist. How close the villages of Lunxhëria are to those of Labëria, and how distinctly they express differences between them, from architectural traditions, land use practices, cultures, customs, songs, and dances, to attire and cuisine. The ongoing interaction of villages and areas, based on their various profiles, has ensured coexistence within the valley system.

With the rise of the communists to power, the rural economy and consequently the countryside began to undergo a transformation (fig. 5). The establishment of agricultural farms and cooperatives not only created a new economic model but was also followed by a renewed social and eventually urban model. The regime tried to shape “the new socialist man” not only through propaganda, but also by transforming the built environment. Under the slogan “Ta bëjmë fshatin si qyteti” [Let's make

the village like a city], the communist regime gradually materialized its ideology by transforming the rural landscape<sup>37</sup>. Initially, the new economic model was applied at the village level, and step by step, cooperatives were grouped, thus creating broader-scale systems where groups of villages cooperated to increase production. One of the villages was designated as the centre of the cooperative and assumed a higher hierarchical role.

During the socialist era, the flat part of the valley underwent policies to intensify agriculture. The cooperatives and farms developed in sectors where each village was specialized according to the characteristics of the territory but without considering the local identities or the historical interactions among them. An illustrative example is the agricultural cooperative "Asim Zeneli", which in 1970 extended from Labëri (villages of Rexhin, Lekdush, Progonat, Golëm, and Lazarat) to Lunxhëri (villages of Saraqinisht, Tranoshisht, and Krinë) and even to Libohovë (villages of Stegopull and Suhë)<sup>38</sup>. Furthermore, villages like Rexhin, Lekdush, Progonat, and Golëm do not geographically belong to the Drino Valley's borders but are part of the Kurvelesh region. The same approach was applied during the settlement of new villages. For instance, the village of Arshi Lengo was established with residents brought from Tepelenë, Skrapar, Përmet, and Kurvelesh<sup>39</sup>, regions geographically detached from the Drino Valley, each with distinct identities from one another.

The very model imposed for the development of agriculture and land management was prone to disintegration immediately after the fall of communism when the free movement of the population was guaranteed<sup>40</sup>, and the land was returned to the villagers.

### 3.3 Depopulation of the valley

Considering that demographic processes until 1991 were planned and controlled, it is worth studying the trends of the last three decades, during which the phenomenon of massive abandonment of rural areas has emerged.

The Gjirokastër Prefecture, which geographically encompasses the Drino Valley, has experienced the most intensive depopulation at the national level, losing approximately 48% of its population

37. POMPEJANO 2023, pp. 103-104.

38. LONDO 2022.

39. *Ibidem*.

40. During communism, the movement of the population within the country's territory was restricted and planned, thereby exerting control over demographic phenomena.



Figure 5. Edi Hila, Planting of trees, 1972 (National Gallery of Arts, Tirana).

or around 54,000 residents in two decades (2001-2020)<sup>41</sup>. Furthermore, the prefecture also has the highest national percentage of the population over 65 years old (23.8%)<sup>42</sup>, a figure that clearly illustrates the intensive phenomenon of labour emigration.

In 2011, the number of unoccupied buildings in the prefecture was around 30%, and their presence was on average 2.3 times higher in rural settlements compared to urban ones<sup>4344</sup>. Since 2011, there are not detailed figures on the number of unoccupied buildings, but given the depopulation trend, it is expected that this number is now above 40%.

If the existing data from the 2011 census for rural areas are analysed, it is evident that the most intensive depopulation and abandonment of territory has occurred in the villages of the Greek minority, who have found it easier to emigrate and integrate into Greece. According to the data, in the case of Upper Dropull, the number of unused buildings exceeds 82%<sup>45</sup>.

It should be noted that the territory exhibited emigration tendencies even in the pre-socialist period. Male emigration for certain periods (*kurbet*) was a routine practice to ensure a basic foundation for building the family economy. However, in most cases, this emigration was not followed by abandonment but by return, leading to the construction of houses or the purchase of properties.

The intensive depopulation rates of the post-socialist period have led to a significant reduction in agricultural activity and production, the closure of schools in villages, as well as the abandonment and degradation of buildings.

Nevertheless, by delving into the local context and community, it becomes evident that abandonment is not always permanent, particularly in historic villages. Numerous families utilize these villages as summer retreats, while some, even after years of absence or despite the decay of their homes, choose not to sell their properties—underscoring a profound connection to the land or a latent desire to return in the future.

### 3.4 Analysis of territorial typologies

The transformation of the landscapes in the Drino Valley has been quite intensive over the past three decades. As mentioned earlier, the direct impact of political, social, and economic changes on

41. *Durrësi bëhet qyteti 2020*.

42. INSTAT 2014, p. 31.

43. The detailed data of 2023 census have not been made public until the publication of this article.

44. INSTAT 2013, p. 78.

45. *Ivi*, p. 84.

human activities, the territory, and consequently the built environment is evident.

In addition to the historic settlements and those developed during socialism, the extensive economic and political transformations of recent decades have given rise to various typologies of rural settlements such as:

- Relocated settlements (new or lower neighbourhoods);
- Settlements along road axes;
- Abandoned settlements.

All the mentioned categories of settlements can be observed in Drino Valley (fig. 6). In the pre-medieval structures that continued to develop during the Ottoman presence, we find settlements that have continuity up to the present day, from all historical entities (fig. 4). Here, we can mention the village of Saraqinишт in Lunxhëri, near the ruins of the ancient city of Antigonea, the village of Melan in Libohovë, near the ruins of the ancient city with the same name, the village of Sofratikë in Dropull, near the ruins of the ancient city of Adrianopolis, and the village of Kardhiq in Labëri, the castle of which dates to the 14<sup>th</sup> century. Meanwhile, villages established during the socialist era include Bulo, Asim Zeneli, Arshi Lengo, Valare, and Andon Poçi. The disintegration of urban-rural entities after the 1990s is exemplified by the expansion of lower neighbourhoods closer to lowlands or road infrastructure, particularly in Nepravishtë and Lazarat (Kordhocë) (fig. 7). Additionally, industrial zones have emerged, primarily along the main road of the valley.

#### *4. Rebuilding identities in Drino Valley*

Being aware that repopulation of settlements in the Drino Valley is not a realistic scenario and on the other hand considering that the contribution of the agricultural sector to the Albanian economy is still significantly higher than the EU average, the proposal for the Drino Valley aims to establish a model that promotes the improvement of the performance of existing assets by relying on efficient instruments for rural territory planning and management.

Regarding the landscape, including the built environment, by improving performance, we mean its conservation and rehabilitation as an integrative and gradual approach, as opposed to transformative interventions *à grande échelle*. Trusting in the regenerative capacity of the Drino Valley, as demonstrated in its history, we believe that implementing policies rooted in the principle

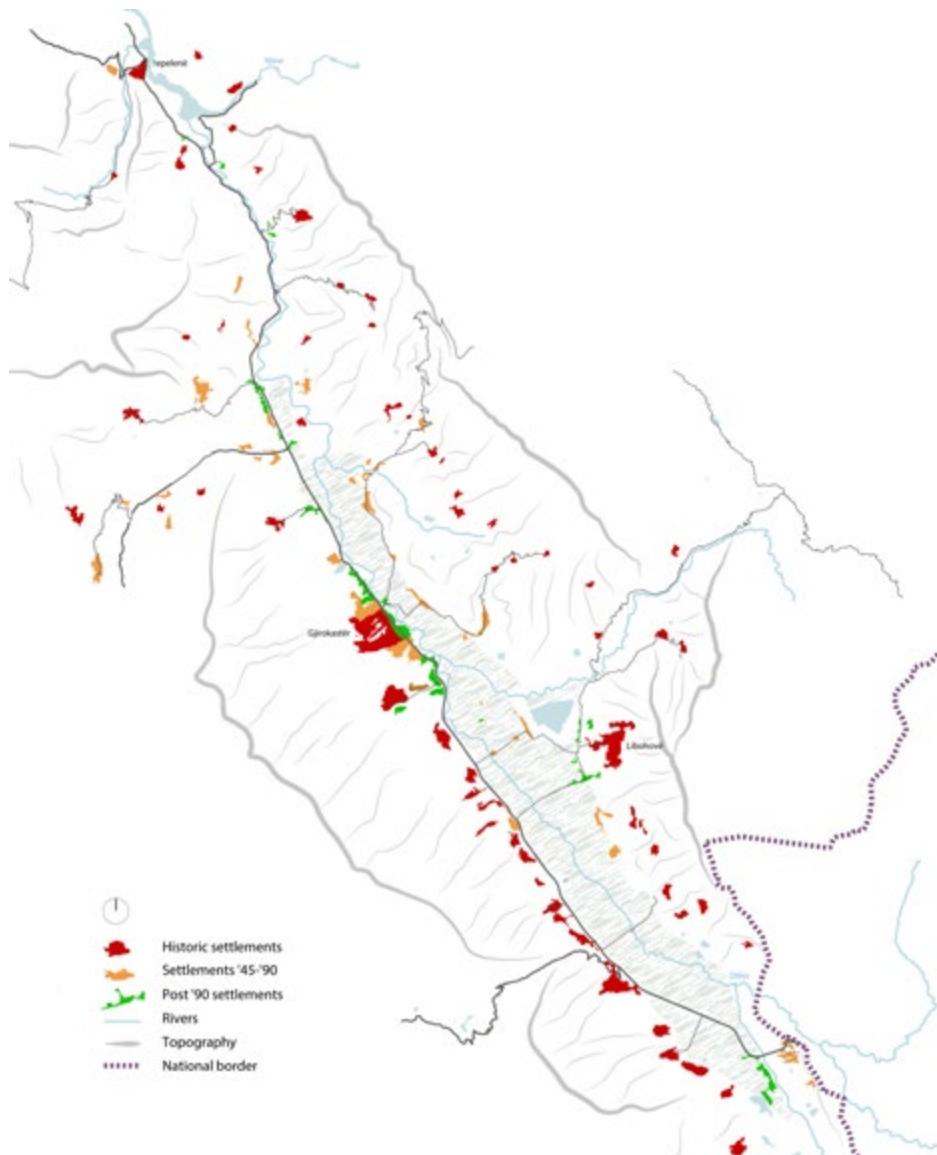


Figure 6. Settlement typologies in Drino Valley (image from 100 Villages Academy - Team Lot 18 & Lot 19).



Figure 7. Aerial view of the post-socialist expansion of Lazarat into the lowlands (photo100 Villages Academy - Team Lot 18 & Lot 19).

of coexistence of settlements, territories, and identities would create optimal conditions for the regeneration of both life and the economy.

In terms of the architecture of territory, the small scale has historically dominated the functioning of the valley. The disruption of regional equilibrium due to centralization during the socialist era, combined with the lack of integrated management in the post-socialist period, should be addressed by reestablishing a system based on a regional logic for managing and developing the territory. Rural regeneration adheres to the concept of localities, which in this case involves the reconstruction of regional economic interdependencies within the Drino Valley.

In contrast to the top-down approaches previously applied in Albania, we propose a governance model that is people-centred, emphasizing the role of local communities over central or local authorities.

As is widely recognized, moving towards a flexible and collaborative model of planning that addresses various contextual challenges requires a pluralistic and inclusive mode of governance<sup>46</sup>. The network governance model goes far from considering central government authorities as the predominant stakeholder in policy making or administration issues<sup>47</sup>. Instead, it provides local communities with the opportunity to become significant actors in development processes and policies. Klijn and Koppenjan define governance networks as «[...] sets of autonomous yet interdependent actors (individuals, groups, organizations) that have developed enduring relationships in governing specific public problems or policy programs»<sup>48</sup>.

The strategy initially outlined by the authors during the “100 Villages” project, and elaborated further in a research-based process, proposes an alternative development model that is both specific and generic when addressing the recovery from the post-communist shock in the countryside. Furthermore, the model remains generic precisely because it depends on individual identities, coexistence, and interactions which we consider preconditions for prosperity and development.

The key development policies of this model are as follows:

- Rehabilitation of public and engineering infrastructure.

From our perspective, ensuring the basic elements of a settlement's functionality is an initial prerequisite for implementing a development model. This includes educational and healthcare

46. HEALEY 1997; HAJER, WAGENAAR 2003.

47. KLIJN, KOPPENJAN 2014, pp. 61-70.

48. *Ivi*, p. 61.

services, ensuring the safety of the territory and buildings, connecting to basic energy and water supply networks, as well as connecting to road infrastructure for accessing further services.

- Strengthening historical identities.

Reclaiming historical identities is crucial for promoting the genuine behaviour of the territory and its communities. The dissolution of these identities during socialism through collectivization, the creation of the "new man", or the trend to promote city-lifestyle in villages, eventually led to the failure of this socio-economic model. Reinforcing historical identities and consolidating historical settlements can be accomplished through:

A. Preserving historical landscapes, architecture, and the natural environment, with a focus on coexistence and the protection of historical layers, as well as accentuating their inherent values.

B. Reviving connections and economic interactions among regional units, fostering specialization and complementarity between these entities.

C. Involving the community in decision-making and governance.

- Developing tourism as a supportive sector for the rural economy.

The tourism industry remains a relatively unexplored concept in rural areas in Albania. We do not suggest a revival model based on tourism but rather seeking to leverage urban tourism flows from Gjirokastra, archaeological sites, and local cultural identities as assets to sustain the struggling rural economy. In this context, the consolidation of historical settlements plays a dual role, both in strengthening local identities and in the parallel development of tourism.

- Consolidation of industrial clusters.

The model we propose doesn't solely draw from the past but also incorporates recent developments. Spontaneous initiatives for the development of light industries in the last three decades can be transformed into planned industrial clusters to function as part of an integrated system.

- Consolidation of socialist-era settlements.

In the case of the newly built villages during socialism, the approach leans towards reinforcing these new identity layers and integrating them in the overall system, relying on their potential to transform into productive hubs.

- Establishing economic chains.

Partly based on the existing cultural identities, and partly on an economic management model linked to territorial assets, promoting profiling and specialization in interactive economic chains is seen as a promising opportunity for regenerating the valley system.

The current planning system in Albania gives little consideration to rural areas. Additionally, planning documents follow a top-down logic of decision-making, prioritizing urban environments. In contrast, the approach proposed in this study strengthens the concept of the regions and promotes a continuous alternation of spatial scales, where the larger system is built through the connections created by the characteristics and profiles of smaller units (fig. 8). The suggested strategy aims to revitalize the regional economy by reinforcing the "natural inclinations" of the settlements, resulting in a balanced development of the landscape.

This alternative planning approach suggests integrating bottom-up actions with top-down ones and recommends reading the territory by applying historical, economic, and geo-morphological data. Similarly, to the Drino Valley, other regions, landscapes and rural contexts can be interpreted, such as valleys, lowland production territories (e.g., Myzeqeja), coastal villages, mountainous areas, etc.

This planning approach ensures a deeper understanding of the territory, but, more importantly, it aims to decentralize development models by offering dedicated and tailored tools for each region. The methodology remains a flexible instrument to face the issue of abandonment and depopulation, that can be followed by local policymakers, territorial management authorities, or developers of instruments for territorial regeneration.

### *5. Conclusions and recommendations*

The "100 Villages" program, due to the 2019 earthquake in Albania and to the COVID-19 pandemic, has been slowed down at the implementation stage. Nevertheless, the proposed regeneration strategy has resonated with various stakeholders; local authorities and businesses have embraced the concept of the "region". The program's impact and the involvement of communities in the planning stages have increased residents' awareness, as evidenced by the growing number of private business initiatives oriented towards tourism.

On the other hand, the process has also drawn attention to the identified villages, and there are several examples of the alignment of planned strategies with government investments and initiatives. Despite this progress, a follow-up programme or an action plan for Drino Valley has yet to be developed.

On a broader level, the proposed approach represents a milestone in the advancement of planning and territorial management culture in Albania, which has largely operated through

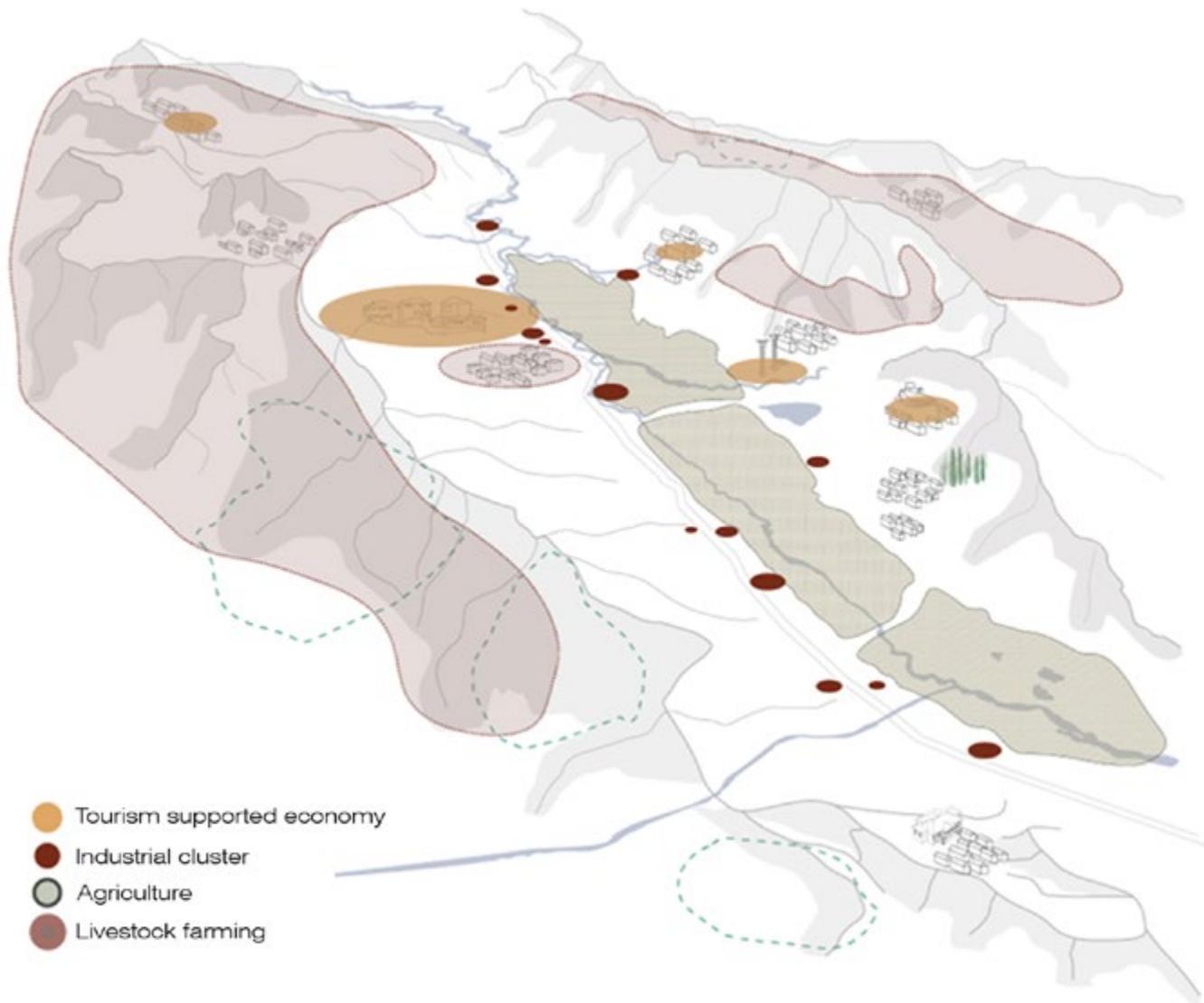


Figure 8. The territorial planning approach for the valley (image from 100 Villages Academy - Team Lot 18 & Lot 19).

statutory documents and top-down methods. The development model of Drino Valley introduces alternative planning concepts, emphasizing the idea that there should be no hierarchical weighting of actors in rural regeneration processes. Based on the complex understanding of the particular context, we believe that exploring territorial identities and involving local communities are essential steps for the rural regeneration processes of the post-communist Albanian countryside.

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## CONCLUSIONS



# LOST AND FOUND

Processes of abandonment of the architectural and urban heritage  
in inner areas. Causes, effects, and narratives (Italy, Albania, Romania)



Edited by Annunziata Maria Oteri

ArchHistoR  
EXTRA



## L'abbandono in prospettiva. Interpretazioni e nuove aperture

Annunziata Maria Oteri (Politecnico di Milano)

*Il saggio sintetizza e fa il quadro dei i temi aperti dalla ricerca Lost and Found, partendo da una riflessione su quanto, in generale, la narrazione degli eventi che hanno generato l'abbandono abbia influenzato il senso di appartenenza delle comunità che hanno subito la perdita e come ciò possa influenzare le possibili strategie di recupero del patrimonio costruito. Si tratta di delineare le premesse per la definizione di quell'“indicatore di vitalità” per il quale la ricerca ha posto le basi e che sarà oggetto di approfondimento in un prossimo futuro. Questo aspetto è poi strettamente legato a uno dei principali temi di ricerca: la propensione alla cura del patrimonio culturale e naturale che queste comunità sviluppano o mancano di sviluppare e la loro capacità di sostenerlo nel tempo. Le pratiche di cura di questi luoghi sono infatti il punto di partenza di qualsiasi strategia di riutilizzo che si possa immaginare. Nella cornice dei risultati raccolti, il saggio infine segnala le questioni aperte dalla ricerca che riguardano la necessità di trovare, in alcuni casi, una via di alternativa al riuso dei patrimoni abbandonati o al loro completo abbandono. Tempi della ricerca, linguaggi e modalità di comunicazione tra i soggetti coinvolti e definizione di strumenti di “misura” dei risultati che si intende ottenere sono nodi sostanziali nella strutturazione di un modello interpretativo per la definizione di strategie a lungo termine.*

# LOST AND FOUND

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# Abandonment in Perspective. Interpretations and New openings

Annunziata Maria Oteri

«The world in itself is [...] the immense archive of itself [...] After all, nothing can be lost from this archive because its energy quantity is constant, and everything seems to leave a trace somewhere»<sup>1</sup>

Is it possible to repopulate the Grecajica and Locride areas in Calabria, the abandoned villages of the Drino Valley in Albania, or the rural villages in the Argeş County, in Romania? Indeed, responding to the question was not the aim of the *Lost and Found* study. As already mentioned, the main goal of the research was to test a history-based method to study the effects of architectural heritage abandonment in marginal areas affected by depopulation. Analyses and considerations that have been gathered in the volume are the result of this approach, which is also territory-based, and adopted by the research group to portray the current conditions of the studied areas, mainly focusing on causes, effects, and narrative. As will be seen later, the research outcome is a significant proposal of new themes that must be addressed to move to the operational phase. However, as always happens when dealing with territories, especially with a multidisciplinary approach, the desire to at least attempt a methodological and critical reflection on the future of the studied villages and settlements is great.

This concluding essay, rather than taking stock of what has been done in the two years of research, attempts to outline the themes unearthed by the *Lost and Found* research, starting from the impact of the narrative of abandonment (and how it affected the sense of belonging of communities who suffered the loss) and how it influences possible strategies for built heritage recovery, hence the

1. SCHALANSKY 2020, p. 21 (translation by the author).

assessment of a “potential vitality” that remains an open question in the research. An attentive study of the narrative surrounding abandonment processes in the studied areas is helpful if it relates to the sense of belonging to those places that the involved communities develop or maintain over time. This aspect is closely connected to one of the leading research topics: A propensity for the care for cultural and natural heritage these communities lack or develop and their ability to sustain it over time. Caretaking practices of these places are indeed the starting point of any reuse strategy one can imagine. An additional premise is necessary for grounding any possible discourse on the destiny of abandoned heritage in inner areas: Looking at abandonment in perspective means becoming aware of the fact that, aside from the natural disasters that have variously affected these places, one cannot ignore that their crisis is a faithful, but often invisible, reflection of the decline of the rural world and the parallel rise of the urban myth to those studying these phenomena.

When discussing returning or hindering the abandonment, this significant paradigm shift cannot be overlooked, – the “depeasantification” quoted by Agostino Petrillo in this volume – that occurred in the past century, which is, in many ways, irreversible.

### *1. Abandonment and relocation in Calabria from the historical chronicles*

In an interesting report from 1954, Umberto Zanotti Bianco affirmed that «disasters do not justify the relocation of entire populations from their native places. These populations must be immediately settled, even temporarily, while waiting for permanent housing in safe areas near their work lands»<sup>2</sup>. He reached these conclusions after having studied the problem of floods in Calabria, particularly the case of Africo (fig. 1), for a long time, along with the governmental strategies for forced relocation of the communities involved far from their native places.

There is a gap between the official narrative of those years<sup>3</sup>, which announced the relocation of the populations along the coast, and the reflections of figures like Zanotti Bianco, who insisted on the necessity of investing in the safety of the territory and keeping the communities in areas close to the original ones. As Agostino Petrillo rightly points out, the political choice to relocate the

2. «Disasters in no way justify the relocation of entire populations from their native homes. These populations must immediately be settled, even temporarily and while awaiting permanent housing, in safe areas close to their working lands.», ZANOTTI BIANCO 1954, p. 462 (translation by the author). On the origin of the discourses about Africo see also SANSA in this volume, pp. 90-105

3. Chronicles from the national and local newspapers are greatly helpful in this sense; see SCAGLIA, VALIANTE in this volume, pp. 324-351.

settlements struck by floods along the coast reflects the effects of rapid industrialization processes, which regard the "old village" as the legacy of a backward and conservative peasant world<sup>4</sup>. It is also demonstrated by the portrayal of poverty and despair that emerges in newspaper narratives, contrasting with the hope and optimism expressed by those who wanted to return to their places of origin following the event. According to the press at that time, which recorded the conditions of the Calabrian towns after the 1951 flood, Africo – one of the small inner villages most affected by the flood – represented «a silent reproach to society» already before the catastrophic event. However, journals often emphasised that although the flood had swallowed Africo, some lands were said to be still restorable,

«but the relative expense would be [...] extremely burdensome both due to the lack of labour and the difficulty of transporting materials, and would far exceed the value of the lands themselves. On the other hand, the owners express a certain reluctance to spend large sums on restoring lands that, regardless of the work done, would still yield the same meagre income as before and from which the new urban centre is over 20 km away on an inaccessible road»<sup>5</sup>.

The other issue that was raised by the national and local press concerned the fact that, after the flood, pastoralism could no longer be practiced as in the past due to the reduction of pastureland caused by the flood<sup>6</sup>, the instability of the terrain between landslides, and the protective restrictions that the Forestry Corps would sooner or later have to impose for the management of the basins<sup>7</sup>.

Two years after the flood, the situation was still at a standstill, as evidenced by local chronicles which highlighted the drama of Africo's «shepherds without a nativity scene»<sup>8</sup> - while also drawing a somewhat victimized comparison with what had simultaneously happened in Polesine<sup>9</sup>. A few

4. See PETRILLO in this volume, pp. 354-373. On the topic see also KEALY 2020.

5. LICONTI 1953a (no pagination).

6. According to the reports of the time, the estimate from the Ministry of Agriculture indicated that 65% of the cultivated land was destroyed or otherwise not restorable, and 35% was recoverable; about 600 families were displaced out of a total population of 2,970; LICONTI 1953, (no pagination). To address the employment issue of Africo's inhabitants resettled on the coast, the government had introduced a measure that provided for the transfer of ownership of the land destroyed or damaged by the flood to the State Forestry Agency - the purchase of the land by the Sila Land Reclamation Agency to be assigned to the families of Africo resettled in the new coastal centre - this was done to ensure the continuation of traditional activities; *Ibidem*.

7. B.P. 1953.

8. LICONTI 1953b (translation by the author).

9. «For those advanced and fortunate lands, everything has returned to normal thanks to the government's vigilant, constant [...] involvement. [...] However, very little has been done for the poor and bleak people of the forsaken Calabria»; *Ibidem* (translation by the author).

families had already settled in the new village. Still, most displaced people lived in neighbouring towns in the province of Reggio Calabria, essentially dependent on the State, creating significant economic and social problems. The tone of the requests made by local politicians and the intellectual and expert community was different, at least in the early stages. Among the documents from the State Archives of Reggio Calabria, fragments reveal a desire to stay or at least to move closer to their native land:

«Regarding the relocation of Africo – reads a letter addressed to the Undersecretary for War Damage<sup>10</sup> – I must inform you that [...] contrary to the decisions made by the authorities under the Ministry of Public Works, which would like to rebuild the new town in the territory of Bianco, I found that such reconstruction is feasible in the same mountainous area as the old municipality, right near the municipality of Bova Superiore. This solution would be more in line with the wishes of the majority of Africo's inhabitants and would meet the criteria of social necessity»<sup>11</sup>.

Fuelled by the national press, the prevailing narrative suggested a "tug of war" between nature that destroys and the state that intrepidly rebuilds what has been destroyed. This effort was considered by many to be useless, given that these partial and unsystematic investments, as well as being disconnected from an overall vision of the problem, did not generate any new wealth but, ultimately, merely restored what had been lost<sup>12</sup>. In short, as Francesco Saverio Nitti and Giustino Fortunato had already pointed out half a century earlier, Calabria was a «crumbling landmass hanging over the sea»<sup>13</sup>, and, in 1953, Corrado Alvaro defined it as a «collapsing land, constantly under repair»<sup>14</sup>.

These feelings then became a certainty when a new flood in October 1953, which partly struck the same areas already destroyed by the previous one, revealed the fragility of the little that had been done so far. In a lucid reflection on the damage caused by the 1953 flood, Alvaro reflected on the long-standing bad habit, rooted in the past, of viewing public works in Calabria as a remedy to counter seasonal unemployment, a social palliative to which both businesses and workers had adapted over

10. The author signs with initials and tracing their identity has not been possible.

11. Archivio di Stato di Reggio Calabria, Prefettura di Reggio Calabria, Fondo Ufficio provinciale di assistenza postbellica, *Trasferimento e costruzione di Africo Nuovo del 1952-1953*, fascicolo 96, Lettera al Sottosegretario di Stato ai Danni di Guerra, on. Gennaro Cassiani, Roma 29 settembre 1952. See also BUTTIGLIONE in this volume, pp. 106-125.

12. *Un discorso* 1954.

13. The expression «a crumbling landmass hanging over the sea» is quoted by a Member of Parliament, Mario Alicata, in session of *Atti parlamentari*, Legislatura II, *Discussioni*, seduta pomeridiana, 29 October 1953, p. 3840 (translation by the author).

14. ALVARO 1953.

time<sup>15</sup>. Alvaro also reflected on the fact that, since the last report on the Calabrian economy, written by the Bourbon government in 1834, the problems outlined had remained essentially unchanged. What had to be added, in his view, was «the destruction carried out by speculators lacking civic responsibility and by needy and inexperienced municipalities, of its forest cover, that is its natural defence»<sup>16</sup>. The consequences of this destruction – as Alvaro sustained – were not clearly perceived except when devastating floods created a cataclysm «that changes [...] the configuration of the land, levels mountains, covers valleys, and prepares the collapse of villages on the slopes». It is only then that the state intervenes, spending large sums to reinforce crumbling villages, but after a few years «cracks already mark and break the bastions holding back the land»<sup>17</sup>.

The issue of land protection and the ineffectiveness of state action mostly aimed at solely repairing damage resurfaced not only in the local press but also in parliamentary discussions and debates where, even in 1957, the government's inability, especially in Calabria, to make land protection a central issue in policies for the future of the country, rather than an emergency issue, was criticised<sup>18</sup>.

On the other hand, from the debates arising around the laws promoted by the government to reclaim southern areas affected by floods in Calabria, some scholars and even the opposition pointed

15. «Half a century of such practices in allocating state money has created a mentality in which it is no longer clear who is the deceived and who is the deceiver. The state has not gained prestige from it, and the governments have never acquired solidarity; they lose it» («Mezzo secolo di una tale pratica nella destinazione del denaro dello Stato ha creato una mentalità per cui non si sa più chi sia l'ingannato e chi l'ingannatore. Lo Stato non vi ha guadagnato in prestigio, i Governi non vi hanno mai acquistato solidarietà. La perdonno»), ALVARO 1953, (no pagination) (translation by the author).

16. *Ibidem*.

17. *Ibidem*.

18. «Perhaps - denounced Mario Alicata - in certain old leadership groups of our country, confidence in themselves has waned, and they have shrunk into greedy and selfish inertia [...] no longer believing in the possibility of economic development and the entire fabric of life in our country, and they are only seeking to extract the maximum immediate profit from agriculture. However, the homeland [...] is something entirely different [...]; the homeland is made up of the people; and today, not only is there confidence in the future among the people, moreover, there is broad and bright confidence in the future. For this reason, they demand that the state intervenes in defence of this primordial good, which is the land on which they must work and produce» («Forse – denunciava Mario Alicata – in certi vecchi gruppi dirigenti del nostro paese è venuta a mancare la fiducia in loro stessi, ed essi si sono ristretti in una inerzia avida ed egoistica [...] non credendo più alla possibilità di uno sviluppo dell'economia e di tutto il complesso della vita nel nostro paese, e cercano soltanto di spremere anche dall'agricoltura il massimo profitto immediato? Ma la patria [...] è tutt'altra cosa [...] la patria è costituita dal polo; ed oggi ne popolo non solo non c'è sfiducia nell'avvenire, ma c'è al contrario un'ampia luminosa fiducia nel futuro; ed è per questo che esso chiede che lo Stato intervenga in difesa di questo bene primordiale che è costituito dal suolo sul quale esso deve lavorare e produrre»), Speech given by the member of Parliament, Mario Alicata, Atti parlamentari, Legislatura II, Discussioni, seduta pomeridiana, 29 Ottobre 1953, p. 3478 (translation by the author).

out that the Calabrian mountains had been supporting «many more people than their resources could allow; and thus it becomes necessary that the progressive reclamation of the plains draw a portion of the population living in higher areas down to the valleys so that the mountains can lie fallow and be covered with the healthy mantle of forests, where possible»<sup>19</sup>. Additionally, many emphasised that the fragility of the mountains could not be addressed merely by focusing on technical, hydraulic, and forestry aspects to be solved through state intervention<sup>20</sup>. Attention was also drawn to the simultaneous need for agricultural use of the slopes, which would regulate the flow of surface water. Thus, for the reclamation work to be effective, it was necessary to involve the farmers with a «unified *local* approach to the problem»<sup>21</sup> that could not be achieved by massively relocating them to the coast. To conclude, the political debate also stressed the importance of not separating mountain recovery from that of the plains, as the former was the «completion and prerequisite» of the latter. On this last point, the discussion shifted to the theme of industrialisation and the state's strong push toward "productivism" at any cost, which to many seemed incompatible with Calabria's physical, economic, and socio-cultural characteristics. Among the many highlighting this issue, Senator Tommaso Spasari pointed out the senselessness of investing in industry in a region that «is dissolving into the sea» and where «a single night's storm is enough to make entire towns disappear, collapse bridges, and sink kilometres of roads»<sup>22</sup>.

In short, first, the reclaiming of rivers and streams, followed by investments in agriculture and industry, seemed to be the necessary steps, which, in fact, did not happen. This would have required

19. CAPUTO 1954, (no pagination) (translation by the author).

20. «Technology is not an abstract, metaphysical entity with unchangeable laws; technology always adapts to the political framework of a problem, not the other way around», Discourse of the Member of Parliament, Alicata, Atti parlamentari, Legislatura II, *Discussioni*, seduta pomeridiana 29 Ottobre 1953, p. 3840 (translation by the author).

21. «Because, without intending to interfere with the criteria and broader programs that drive state interventions in the formulation of laws and the frameworks of plans, it is precisely here, among us, that the lack of an organic vision and simultaneous, concrete implementation of the legislative provisions is evident. These provisions exist and, if honestly applied, with uniformity of criteria and interventions, could be decisive» («perché, senza volere interferire nei criteri e nei programmi generali, di più vasta portata che muovono gli interventi statali, nella formulazione delle leggi e nelle impostazioni dei piani, è proprio qui, da noi, che si nota il difetto di una visione organica e di un attuazione simultanea e concreta delle provvidenze legislative, che pure ci sono e che, se veramente applicate con univocità di criteri e di interventi potrebbero essere risolutive»), *Ibidem* (translation by the author).

22. «What trust can there be for new investments in agriculture and industry if we cannot guarantee the very existence of the Calabrians and Calabria? » («Quale affidamento può aversi per nuovi investimenti nell'agricoltura e nell'industria se non si riesce a garantire ai Calabresi e alla Calabria la vita stessa?»), *Ibidem* (translation by the author).

coordination between the Ministry of Agriculture and the Ministry of Public Works<sup>23</sup> and a broader vision of the issue. In this context, it is neither the technicians nor the politicians who show the most forward-thinking ideas, but rather some intellectuals who, without falling into victimhood, see the possibility, amidst the immense tragedy, of changing the course of environmental history in Calabria: «In the face of the enormity of the accumulated damage, it is astonishing that no state budget would be sufficient to remedy the harm done to the region's infrastructure. But one day we will have to start, and that day can be today», wrote Corrado Alvaro, who also pointed out that the geographical and physical characteristics of the region, rather than being a problem, could become a resource for the entire country. The vast torrents, though requiring great expenditure of energy and money, could have been transformed from destructive monsters into reservoirs of energy for all southern Italy if only people had gone beyond mere displays of solidarity and if only Calabria had been offered «a task and a hope»<sup>24</sup>. Alvaro anticipated a current, noteworthy idea that the crisis of inland areas could be solved, but not for all of them, only by removing these areas from their isolation and starting to view “empty Italy” as an important resource for “full Italy”, for example, as a source of crucial ecosystem services also in the context of climate change.

However, the press, politicians, and local communities lamented that the government appeared uninterested in the matter. It is a fact that in 1957, the special law for Calabria (November 26, 1955, n. 1177) for the recovery of the mountains had still not been applied, as denounced by local politicians<sup>25</sup>, who also highlighted a certain reluctance on the part of the government to intervene in the province of Reggio Calabria. Evidence of this, according to the member of parliament Eugenio Musolino, was the poor territorial distribution of funds — very little for the mountain areas — and the reluctance of the coordination committee to intervene «more decisively and substantially in the execution of forestry work», along with a «resistance on the part of the Public Works Authority towards Reggio Calabria». This recalled a hypothesis by scholars some years earlier, who suggested abandoning the Reggio mountains to their fate<sup>26</sup>.

23. Lack of coordination among the various ministries involved is a recurring theme in the parliamentary debates of those years; see, in particular, *Atti parlamentari, Assemblea costituente, Interrogazione del parlamentare Eugenio Musolino sui tagli forestali in Calabria del 6 novembre 1948*.

24. ALVARO 1953.

25. See the speech of the Honorable Musolino from *Atti parlamentari, Legislatura II, Discussioni, seduta antimeridiana del 24 ottobre 1957*.

26. The reference is to a hypothesis put forward during a conference held in Crotone on these topics, as reported by Honorable Musolino; *ivi*, p. 37171.



Figure 1. Africo, Reggio Calabria (photo A.M. Oteri, 2022).

The final document published by the Parliamentary Commission of Inquiry on Poverty in Italy<sup>27</sup> highlights the severity of the situation for Calabria: «The long neglect of this and other regions of the South, the continued absence of external aid and initiatives capable of promoting development in such areas, have only compounded the already unfavourable natural conditions, leading to a process of progressive deterioration of economic activities and the very "habitat" in which they take place»<sup>28</sup>. This situation along with the failure of the agrarian reform in the South caused an incredible wave of migration towards the North between the 1950s and 1970s, leading to the abandonment of the inner rural areas of Calabria. This phenomenon had significant consequences for a region that had primarily been a region of inland areas, mountain villages, and small settlements perched in the hinterland for many centuries.

## *2. The decline of the rural world and the destiny of villages and communities*

The floods of 1951 and 1953 were a missed opportunity for Calabria to systematically address the problem of land protection, both in the mountains and the plains. As a result, the debate about the fate of the villages in that area, most of which were abandoned<sup>29</sup>, and the prospects for the new villages being settled along the coast did not yield significant outcomes. Indeed, the situation reflected the failure of post-war agrarian policies, which could not curb the depopulation of these areas<sup>30</sup>. The relocations to the coast were aimed more at promoting new forms of industrialization, rather than agriculture, which never took off<sup>31</sup>. In this general political push towards the modernization of production, and consequently a disregard for the fate of the peasant world, not so much in economic but rather in socio-cultural terms, it is not surprising that there was a lack of debate regarding

27. The Parliamentary Commission of Inquiry on Poverty in Italy and Means to Combat It (*Commissione parlamentare d'inchiesta sulla miseria in Italia e sui mezzi per combatterla*) was established in 1952 to estimate the size of the population living in conditions requiring state support. The results of the inquiry were published in *Atti della commissione* 1953-54.

28. *L'evoluzione economico sociale della regione nel decennio di attuazione della Legge Speciale* (*The socio-economic evolution of the region in the decade of implementation of the Special Law*), Report of the special Commission chaired by Deputy Francesco Curato, in GRECO 2013, p. 161.

29. See Sulfaro in this volume, pp. 44-89.

30. When politicians became aware of the dramatic consequences of rural depopulation, they tried to promote some initiatives, such as renewing crops on abandoned estates or reviving new forms of cooperation in the tradition of collective leases, but it was already too late; GRECO 2013, pp. 162-163.

31. TINO 1985.

the formal and settlement aspects of the new villages and the absence of any consideration or reflection on the settlement features, the types to be established, and especially the relationship of the new villages with the context in which they would be inserted. Furthermore, the natural disaster was a missed opportunity to reconsider a new destiny and a new role for these villages, from an urban and socio-economic perspective. Regarding the examples quoted in the volume, excluding the case of Canolo<sup>32</sup>, more information needs to be found concerning a possible debate on how these villages should have been transformed. Indeed, the future emerging for these new places was not a rural one, and perhaps politics, fully engaged in consolidating the country's industrial future, had already accepted the decline of rurality as irreversible. As Marco Mareggi documented in his paper, the relocation of Canolo had different results mainly due to the involvement of local communities. The decision not to relocate the settlement to a place far from the original and not to abandon Old Canolo (fig. 2) entirely was not made by the central government, thus by an external entity, but rather by a prominent group of active local citizens supported by the technical opinion of the Civil Engineering Corps. The reasons behind the choice reflect a familiarity with the site and many expectations about the availability of transportation infrastructure, sufficient agriculture, and tourism potential<sup>33</sup>.

While the processes of abandonment and resettlement in Calabria were a missed opportunity to reflect on the validity of socio-economic choices, they were equally so concerning planning themes and dialogue with the environment. The result was the creation of featureless settlements lacking any formal quality that would have allowed them to impose themselves in areas often of great environmental value, reaffirming an idea of temporariness that had little to do with the "rebirth" objectives that the relocations aimed for, at least on paper. As Mareggi rightly points out, planning new centres has never been an occasion for collective debate, not even among experts. It has mostly been a design process that took place exclusively on a technical level, the outcomes of which are thus tied to the skills and culture of the appointed architects and engineers. In the case of Canolo, for example, the discussions were limited to a debate among the designer, the mayor of Canolo, a few local parliamentarians, and the Civil Engineering Corps<sup>34</sup>.

From a comparison with the Romanian and Albanian cases, significant differences emerge, not so much in the outcomes of these processes of "de-ruralisation" or "urbanisation" of the peasant

32. See MAREGGI in this volume, pp. 152-201.

33. *Ibidem*.

34. *Ibidem*.



Figure 2. Canolo, Reggio Calabria (photo A.M. Oteri, 2022).

world, but rather in the premises that have determined the phenomenon. In the three cases, starting from the crisis of the early twentieth century, the rural issue is indeed a "matter." At this point, the narrative becomes central concerning the anti-population decline and anti-abandonment strategies that have been implemented. In Italy, as we have seen, the post-war process of industrialization almost entirely absorbed the debate on the socio-economic future of the country, and only the catastrophes that periodically affected rural and inner areas compelled reflection on their fate<sup>35</sup>. For the Italian peasant world, particularly in the South, the post-war reconstruction was definitively a point of no return when agricultural work ceased to be a "migrant practice"<sup>36</sup> and instead marked the ultimate departure of peasants from the countryside towards urban and metropolitan areas. The "peasant issue", which was addressed systematically in the post-war period, was mainly tackled from an economic perspective, neglecting the cultural and social aspects of that world<sup>37</sup>. Despite the differences in views between right-wing and left-wing cultures, during those years in Italy, there was an intolerance for that "rural nostalgia" which saw peasant society as the guardian of traditional balances. In general, the rural hinterland of the South was seen as a place of backwardness, to be overcome only by investing in the modernization of cities<sup>38</sup>.

In Romania, as early as the beginning of the twentieth century, much had already gone into thinking about the modernisation of rural life and the peasant world became instrumental in defining policies to revive rural areas. After the Second World War, «the peasants with their "ancestral creative genius" played a significant role. Nevertheless, they were quite frequently used as a political planning tool»<sup>39</sup> if we consider the colonialization of new Romanian territories during the early 20<sup>th</sup> century, relocation due to hydrogeological risks during the 1930s, socialist collectivisation after 1945 or further socialist territorial "systematisation" processes. Studies by sociologist Dimitrie Gusti on the social reform of rural villages, understood as the fundamental social units of the country, are of great interest in this regard<sup>40</sup>. Even more interesting is the question of how, after the Second World War, the

35. This is not the place to delve into the complex causes that led to the abandonment of the rural world in Italy after the Second World War. However, it is helpful to note that the post-war policies in Italy regarded the exodus from the countryside to the cities as an inevitable price to be paid for rebuilding the country and starting the process of industrialisation. Regarding Calabria see GRECO 2013.

36. BEVILACQUA 2001, p. 98.

37. GRECO 2013, p. 156.

38. *Ivi*, p. 157.

39. See MINHEA *et al.* in this volume, p. 399.

40. *Ivi*, p. 410.

theme of modernising the rural world intertwines with processes of industrialisation. Romania also experienced the abandonment of villages lacking economic potential and the partial reconversion of those affected by depopulation, caused, as in the rest of Europe, by the growth of large industrial centres. Compared to the Calabrian case, the debate in Romania includes interesting reflections not only on social aspects but also on urban planning and the layout of new settlements, with at least a theoretical desire to maintain some traditional characteristics. As described by MINHEA *et al.* in this volume, there are interesting attempts to define typologies inspired by tradition. However, in the end, the design carried out on paper was essentially a forced approach when applied to small rural centres, which, by tradition, were the result of spontaneous growth, albeit never random. Furthermore, the transformation of the peasant into an “urban worker”, hoped for by sociologists, effectively accelerated the dissolution of the rural world.

In Albania, the socialist regime exerted a significant impact on rurality. This transformation specifically materialized in a shift from a feudal system to the gradual collectivization of property and the reorganization into state farms and agricultural cooperatives. The transition was gradual but significantly altered not only the economic structure but also the physical landscape and settlement patterns.

«Many new rural residential centres were designed ex-novo, to serve the new economic structures. Particularly after the 1970s, the tendency to preserve mountainous and remote areas from depopulation was expressed in planning strategies for rural settlements. These strategies aimed at intensifying areas inhabited near natural resources, forests, energy sources, etc., facts reflected in the urban consolidation of existing villages in these areas, as well as in the planning of new ones»<sup>41</sup>.

Even in this case, the theoretical debate on the construction methods of the new villages could have been more effective. The outcome was a significant transformation of the traditional villages, featuring a compact, family-based structure in new settlements characterized by a rigid geometrization of building blocks, indicating a lack of sensitivity to the contextual environment: «Contrarily, socialist villages lack a clan-based structure and instead feature heterogeneous neighbourhoods that often exude an urban rather than a rural atmosphere in terms of composition»<sup>42</sup>.

The impressive wave of emigration following the fall of the communist regime in Albania mainly affected inland areas and the rural world, with depopulation rates reaching about 37% of the population. The end of the cooperative system and the subsequent sale of state-owned land led

41. See ISLAMI, VEIZAJ in this volume, p. 457.

42. *Ivi*, p. 458.

to fragmentation of the agricultural structure, causing significant subsistence problems and the abandonment of many inner rural settlements.

Despite political, geographical, and economic differences, a common thread connects the cases studied: the view of the small rural centre as a world that has now been surpassed. This is evidenced by the revitalization attempts carried out in the three cases, which, despite their differences (the 'displacement' — with the relocation — or reorganization into a system that is not urban but no longer rural, etc.), only confirm an increasingly unstoppable crisis of the rural world and its tangible (the small centres) and intangible (traditions) legacy. In all cases, from the Calabrian to the Romanian and Albanian ones, the models adopted for the new centres diverge from the spontaneous and compact structure of the rural village in favour of urban types and layouts more aligned with emerging city models: a looser relationship between streets and homes; the presence of a civic (or religious) centre as the focal point of the entire layout, and so on. These models are more reminiscent of garden cities than small mountain rural centres. A paradox arises in which the aim was to revive the fortunes of the peasant world by using models and tools inherent to the urban environment and culture, namely, that world which had been the main cause of the dissolution of the peasant world.

Furthermore, in all three cases, the issue of abandonment and how to counter it has become a dominant theme in contemporary debate.

### *3. Memory and care. An antidote to abandonment*

«Why does an abandoned centre attract interest?» Monica Musolino asks in her essay *Territories of abandonment*, even becoming the subject of multi-scale planning (social, cultural, architectural, restoration, etc.) beyond the common nostalgic rhetoric<sup>43</sup>. The crux, Musolino further argues, lies in the memorial relationship between the place and the community, understood not only as the community that inhabited it but also as the one that has experienced and continues to experience it in narrative forms from the time of abandonment to today<sup>44</sup>.

Sociologists and anthropologists who study the phenomenon of abandonment base their research primarily on the theme of narration. From their point of view, it testifies to the persistence of an emotional bond with the place, thus indicating the potential vitality of an inhabited area. Therefore, repopulation or at least revitalisation can only occur when physical abandonment, whether partial

43. See MUSOLINO in this volume, p. 376.

44. *Ibidem*.

or total, has taken place, and an emotional bond persists. In such cases, as Musolino writes, citing Paolo Jedlowski, «entire generations can inhabit that place in memory and narrative alone» and the relationship with the place persists if there is a group who can still share its reminiscence. However, this is not enough. According to Martin Heidegger, quoted by Musolino<sup>45</sup>, dwelling begins with the act of building and includes taking care of what has been built. An abandoned or depopulated place is still alive if someone takes care of it whether one is an “insider” or an “outsider”. Therefore, care and memory are two necessary conditions for dwelling and, thus, for the existence of a place. It means that a place can preserve traces of life even if completely abandoned and ruined (figs. 3-4). What happens in Ferruzzano Superiore, as Agostino Petrillo details in his essay<sup>46</sup>, clearly explains this idea. Ferruzzano is an abandoned centre, but in the summer, a festival attracts many emigrants who return there for the holidays. The open spaces that characterise this settlement, stubbornly clinging to a rocky hill, come alive like in the past. Many houses are abandoned, but walking through the streets of Ferruzzano, one gets the impression that the centre is not entirely devoid of life. Two reflections can be helpful in the reasoning followed here: the first is about the bond that even those who have left maintain with the small settlement, a bond that does not seem to exist with the new settlement on the coast; the second reflection concerns the fact that care for this centre is focused on some particular elements: In this case, the urban spaces, the areas around the houses, which today as in the past are used to “build community”. Something similar happens in Africo Vecchio, as narrated by Musolino. Compared to Ferruzzano, old Africo – located in the heart of the Aspromonte mountains in a difficult-to-reach position – is entirely in ruins. However, there is a strong bond between the old, abandoned site and the inhabitants who live in the new Africo built on the coast after the 1951 flood, which contrasts with the disregard for the new site. The bond is mainly related to the devotion to Saint Leo and the small sanctuary dedicated to him. The celebration of Saint Leo every May connects the new generation of Africesi with the original settlements they never inhabited: among the ruined buildings, it is still possible to experience the past. The rubble of buildings, streets, and squares that existed before the disastrous event, often takes on a sacred character in the collective representation, and what remains, including the natural heritage, becomes an intangible trace of the past. These are places which hold a special “aura”. Even if the old inhabitants, who were children when the flood happened, clearly remember the living conditions and the isolation they were in, still, the mythicized beauty of the original village remains as an identity trait, compensating for what the new landscape

45. *Ivi*, p. 377.

46. See PETRILLO in this volume, pp. 354-373.



Figure 3. Ferruzzano Superiore, Reggio Calabria (photo A.M. Oteri, 2022). On the next page, figure 4. Ferruzzano Superiore, Reggio Calabria. Interior of the old school (photo F. Vigotti, 2022).



and new place have not yet been able to offer. In this perspective, the ruins which characterized these abandoned villages can be considered, quoting Petrillo again, as "non-uments"<sup>47</sup>. Contrary to "monuments", which are symbols of power (religious, civil, cultural, etc.), "non-uments" are the silent witnesses of a power vacuum and a warning against the long sequence of defeats suffered by these territories, which seem difficult to stop. Perpetually poised between architecture and ruin, they suggest the end of something, and, at the same time, they are the symbol of a memory that persists as long as someone takes care of them. Memory and care processes are activated similarly, selecting traces and elements from the past and bringing them into the present through storytelling (narration of events over time) and restoration (acting on spaces and built heritage). The potentiality of possible dialogue between narrative and restoration (time and space) has been highlighted in the Riba research. If it exists, the relationship between "non-umental" and the potential vitality of an abandoned place is one of the lines of inquiry that the *Lost and Found* research proposes for the future. Here, however, the focus is on emphasizing the close relationship between memory and care, also considering the fact, as Petrillo again points out, that the process of dissolution of the peasant world's imagery – which is the origin of the settlements we are dealing with – is much faster than that of its material traces, which often one does not know what to do with. The studied cases show that ruins have a fundamental role in hindering abandonment and paradoxically, the more the settlement is in ruins, the more memory is preserved, and practices of care are implemented. This suggests that abandonment – gradual, accompanied, in some cases even "touristified" – may be a possible way for places like Africo or the old and ruined part of Canolo (figs. 5-6).

#### *4. Old problems, new issues. Latest challenges from the "Lost and Found" research*

The dilemma between abandonment and reuse of depopulated heritage and settlements remains an open question that the research has only touched upon, aiming to lay the methodological groundwork for future reflection on this topic<sup>48</sup>.

If one looks at the problem from a humanistic perspective, abandonment is not the right choice as it implies a definitive severance of ties with memory, leading to wilderness in the communities that experience it. This idea of abandonment is valid only if we consider that physical abandonment (the lack of use) must necessarily coincide with the end of that place. «After all – writes Judith

47. *Ivi*, p. 363. The idea of "Non-ument" quoted by Petrillo is from Gordon Matta Clarke.

48. See OTERI in this volume, pp. 8-39.



Figure 5. Canolo, Reggio Calabria (photo A.M. Oteri, 2022).



Figure 6. Canolo, Reggio Calabria (photo N. Sulfaro, 2022).

Schalansky – everything that still exists is simply what remains [...] and the difference between presence and absence can be marginal as long as memory exists»<sup>49</sup>. Thus, the “survival” of a given place is not necessarily tied to its permanent reuse but to the possibility of experiencing it in various ways. «Memories – writes Petrillo – are proustianally attached to places, to ruins, and it is not only a matter of re-establishing a link with past forms of life, with its lost habits and customs, but also, [...] in some cases the challenge is to resurrect the dead, evoking them through places they lived, to make them appear in the form of an oneiric image or ghost»<sup>50</sup>.

The abandonment of a place also has significant physical consequences, as with abandonment, maintenance and care of the land cease, leading to increased risks. However, in many cases and particularly in Calabria, the abandonment of the inland areas seems to have been a necessary step if we only consider – quoting the words by Giuseppe Isnardi – that «the villages are mostly very distant, not in a straight line, but follow the rugged and broken nature of the terrain. They look at each other indifferently, like poor people who know they cannot even lend each other a hand»<sup>51</sup>.

Repopulation is not feasible in many cases, as for Africo, where the relation between memory and care still exists, and so must be nourished in other ways. In other cases, abandonment is not always permanent, as for some villages in Albania here documented by Islami and Veizaj or in the case of Ferruzzano, where some signs of a possible return can be perceived among the abandoned alleyways: «Here the feeling – writes Petrillo – is that not much would be needed to repopulate: it would be enough to simply reconnect that which has been disconnected, creating transport lines, services, in a natural reality of astonishing beauty»<sup>52</sup>.

As we have seen, a history-based approach has been at least helpful in defining the terms of the issue, acquiring knowledge, and ultimately attempting to decipher the vocations of a given place. The first step, however, in this process is to let go of the idea – consistently proposed since the post-war policies – that the revival of these places is only possible by looking to the city model. In short, as Petrillo also states, defining what is urban and what is not is essential. In Albania, for example, the program “100 villages” proposed by the government for the “rural renaissance” of the country after the collapse of the agricultural system in the 90s has been grounded on the awareness of an impossible repopulation *tout-court*, but at the same time, being aware that the contribution

49. SCHALANSKY 2020, p. 15 and p. 26.

50. See PETRILLO in this volume, p. 362.

51. ISNARDI 1965, pp. 12-13.

52. See PETRILLO in this volume, p. 364.

of the agricultural sector to the Albanian economy is still significantly higher than the EU average. The proposal for the “renaissance” of the Drino Valley starts from this awareness, based on the regenerative capacity of the area, as documented by history; the gradual and integrative approach aimed at strengthening local resources using efficient instruments for rural territorial planning and management. It is not a matter of building false identity and activating folkloristic scenarios for tourists based on the rhetoric of identity but on the reinforcement of the natural inclinations of the settlements, resulting in a balanced development of the landscape through the idea of “locality”<sup>53</sup>.

The *Lost and Found* research did not define an interpretative model of abandonment, but it grounded the premise for further improvement on the matter: the choice between repopulation (reuse) and abandonment must be based on a history-based approach; the sum of history-based and site-specific approach is a necessary premise for the definition of the potentiality for the reuse of abandoned villages and heritage or, namely, the “vitality indicator”; between abandonment and reuse, other approaches can be explored.

Something more can be said on this last point. Anthropologists have demonstrated that the “myth” of abandonment can produce more destruction: «Abandonment elevated to beauty produces a host of ruinologists» writes Rizzo<sup>54</sup>, that has nothing to do with the idea of preserving the history and narrative of a given place. If abandonment reaches deep, the risk leaves room for scavengers who roam these villages, plundering private homes, warehouses, small churches, and cemeteries<sup>55</sup>. The only defence against “ruinology” is knowledge and awareness about the processes which caused the abandonment along with the potentiality of a given place: strategies that preserve the idea of abandonment without necessarily repopulating a place, which could work in the case of Africo, or, conversely, new forms of use – not necessarily based on tourism – that gradually reverse the trend of abandonment, that could be suitable in the case of Ferruzzano or some villages in Albania and Romania. The time might be right for such a new perspective thanks to some principles like circularity and sustainability which open a new way of looking at cultural heritage as something that can produce more than “simple” economic values (new uses to fit our needs), but broader and more inclusive cultural values derived from the idea of what that complex system of heritage, whether at the architectural, urban, or territorial scale, can offer us. This change opens the reuse and

53. See ISLAMI, VEIZAJ in this volume, pp. 450-477.

54. Rizzo 2022, p. 63.

55. *Ivi*, p. 163.

abandonment of historical sites to a new relationship between cultural heritage and society (social values) or, more in general, to a broader human scale dimension<sup>56</sup>.

Once the methodological platform for the future definition of an interpretive model of abandonment is established, outlining the necessity of understanding the architectural heritage abandonment processes (including the interconnections with socio-economic and planning aspects<sup>57</sup>), at least three questions remain open, which we will only mention here, deferring the possible answers to a subsequent phase of research. The first is a matter of time. History-based and site-specific research requires a significant amount of time (e.g. archival research, collection and elaboration of multiscale data, definition of a proper multidisciplinary methodology according to current policies and economic constraints), which rarely fits with the time and urgency of local administrations and communities who many times have had to face numerous kinds of risks and, not secondarily, have to chase funding and pass measures with tight deadlines.

Time is also a crucial factor in the choosing between abandonment and reuse because while the former occurs slowly, the latter requires rapid action.

The second issue is related to languages, namely the fact that often, in academia and between academics and communities (intended in the broader sense of people, administration, and rules), words can assume different meanings, causing problems in understanding and dialogue. At least a preliminary agreement on words and concepts would be necessary before starting any collaboration.

Finally, measurements. What is the reference point for evaluating the effectiveness of a “revitalization” process? For example, if one considers the socio-economic aspects, effectiveness can be measured in terms of well-being and improved quality of life for local communities or in increasing tourist flows, which rarely align. If we look at the material aspects, the reference point could be the highest achievable level of preservation of the built heritage or, conversely, with an entirely different outcome, the degree of transformation (modernization) one can achieve for that particular settlement or territory. Of course, answering this last question would mean having already defined a strategy for repopulating or abandoning lost places. However, it is feasible or at least desirable to imagine the chance of defining a flexible interdisciplinary decision support method, based on multicriteria analyses, as part of the interpretative model for evaluating the potentiality of abandoned or depopulated settlements. This multidimensional approach to investigating whether the abandoned settlements and heritage in inner areas are still vital or not would require a significant

56. See ROSSITTI *et al.* 2022, particularly p. 183.

57. See ROSSITTI, OTERI, TORRIERI 2024b, p. 5.

opening, hence a dialogue, with politicians, economists and planners. Before that, a change in attitude is required regarding the possibility that abandonment processes, often irreversible, can be governed (countered or accompanied) starting from the territory itself, which, with careful listening, can sometimes suggest spontaneous and unexpected solutions. Adopting a history-based approach to reading these processes does not mean confining them to a timeless dimension, thus unchangeable or fixable only with a profound break from their history ("touristifying" a territory with little hospitality propensity might be a significant example). On the contrary, it means accepting the complexity of emerging phenomena and turning them into resources for the future, even in the case of abandonment, which sometimes must be considered a natural phase in the life cycle of a place<sup>58</sup>. Therefore, from this perspective, revitalising a given settlement or territory is not an act of "redemption" but an opportunity<sup>59</sup>, and abandonment is not a surrender but an awareness of the impossibility of returning.

58. ROSSITTI, OTERI, TORRIERI 2024b, p. 13.

59. ROSSITTI, OTERI, TORRIERI 2024a p. 624.

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