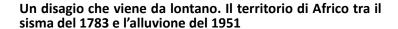
LOST AND FOUND

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



Edited by Annunziata Maria Oteri





Renato Sansa (Università della Calabria)

Nell'ottobre 1951 una terribile alluvione travolse Africo e la frazione di Casalinuovo. 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 socioeconomiche 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 18th 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 consequences¹. 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 ducats². 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 involved³.

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 displaced⁴.

The early decades of the 20th 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»⁵. 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»⁶. 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 development⁷.

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 injuries⁸. 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 damage⁹. 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 Mercalli¹⁰, 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 houses¹¹. 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»¹². 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 Corrispondenza, 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»¹³. 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 Doria¹⁴. The initial trust was well placed, and on 31st 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 Italy¹⁵.

Manlio Rossi Doria's arrival in Reggio Calabria was documented on the 28th of August, 1928. On the 4th 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 witnessed¹⁶ (fig. 2).

The bread from Africo has a "high symbolic value" 17. 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.

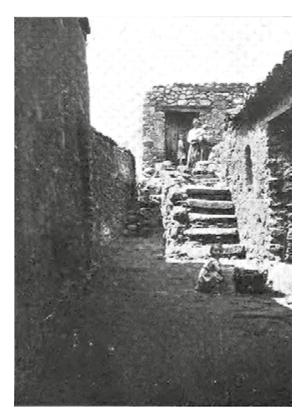


Figure 2. The conditions of the Africo settlement in 1928 (ANIMI 1929, p. 205).

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»¹⁸.

^{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»¹⁹. 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» 20. 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»²¹.

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 Bianco²². 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 1929²³.

- 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»²⁴ (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 creeks²⁵ (fig. 5).





MAGRI SEMINATIVI SI ARRAMPICANO SULL'ERTA MONTAGNA.

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

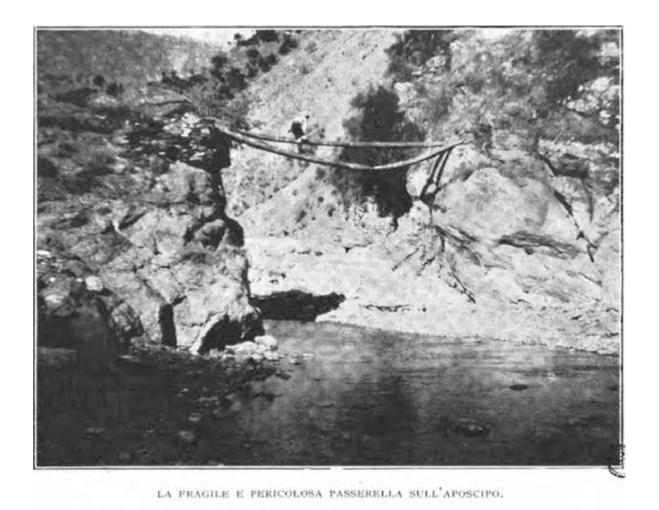


Figure 5. The wooden footbridge over the Aposcipo stream, replacing the collapsed bridge (ANIMI, 1929, p. 203).



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 Casalinuovo, 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 century²⁶. 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 poverty²⁷. 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 Africo²⁸.

^{26.} PALMIERI, PETRUCCI, VERSACE 2011.

^{27.} BESOZZI 1948.

^{28.} See infra note 25.

Bibliography

AMENDOLA 1979 - G. AMENDOLA, Il pane di Africo, in «L'Unità», 11th February 1979.

BESOZZI 1948 - T. BESOZZI, *Troppo strette le strade per tenere l'ombrello aperto. Il più disperato paese della Calabria,* in «L'Europeo», 21st March 1948.

ANIMI 1929 - ANIMI, *Problemi della montagna meridionale. Inchiesta sulle condizioni del comune di Africo*, in «L'Alpe. Rivista forestale italiana», XVI (1929), 5, pp. 201-209.

GRASSO 2015 - M. GRASSO, Costruire la democrazia. Umberto Zanotti Bianco tra meridionalismo ed europeismo, Donzelli, Roma 2015.

GRIMALDI 1863 - A. GRIMALDI, La Cassa Sacra ovvero la soppressione delle manimorte in Calabria nel secolo XVIII, Stamperia dell'Iride, Napoli 1863.

GUIDOBONI, MARIOTTI 2008 - E. GUIDOBONI, D. MARIOTTI, *Il terremoto e il maremoto del 1908: effetti e parametri sismici,* in G. BERTOLASO, E. BOSCHI, E. GUIDOBONI, G. VALENSISE (eds.), *Il terremoto e il maremoto del 28 dicembre1908*, INGV e SGA, Roma-Bologna 2008, pp. 17-136.

Il terremoto delle Calabrie 1906 - *Il terremoto delle Calabrie nel settembre 1905,* in «Giornale del Genio Civile. Rivista dei lavori pubblici», 1906, 44, pp. 521-546.

MERCALLI 1909 - G. MERCALLI, Contributo allo studio del terremoto calabro-messinese del 28 dicembre 1908, in «Atti del Regio Istituto di Incoraggiamento di Napoli», ser. VI, vol. 7 (1909), pp. 249-292.

MISIANI 2010 - S. MISIANI, Manlio Rossi-Doria. Un riformatore del Novecento, Rubbettino, Soveria Mannelli 2010.

PALMIERI, PETRUCCI, VERSACE 2011 - W. PALMIERI, O. PETRUCCI, P. VERSACE (eds.), La difesa del suolo nell'Ottocento nel mezzogiorno d'Italia, n.e., n.p. 2011.

PLACANICA 1985 - A. PLACANICA, Il filosofo e la catastrofe. Un terremoto del Settecento, Einaudi, Torino 1985.

PONTIERI 1969-1970 - E. PONTIERI (eds.), Carteggio tra Giustino Fortunato e Umberto Zanotti Bianco, in «Archivio storico per la Calabria e della Lucania», 1969-1970, 37-38, pp. 3-350.

RICCÒ 1897 - A. RICCÒ, *Il terremoto del 16 novembre 1894 in Calabria e Sicilia*, in «Annali dell'Ufficio Centrale Meteorologico e Geodinamico Italiano», ser. II, vol 19, (1897), I, pp. 7-261.

SABATINI 1909 - V. SABATINI, Contribuzione allo studio dei terremoti calabresi, in «Bollettino del R. Comitato Geologico d'Italia», ser. IV, vol. 10 (1909), 3, pp. 235-345.

SARCONI 1784 - M. SARCONI, Istoria de' fenomeni del tremoto avvenuto nelle Calabrie, e nel Valdemone nell'anno 1783 posta in luce dalla Reale Accademia delle Scienze, e delle Belle Lettere di Napoli, G. Campo, Napoli 1784.

TRAVAGLINI 1985 - G. TRAVAGLINI, Il controllo delle acque e la difesa del suolo, in P. BEVILACQUA, A. PLACANICA (eds.), Storia d'Italia, Le regioni dall'Unità a oggi, La Calabria, Einaudi, Torino 1985, pp. 692-718.

VIVENZIO 1783 - G. VIVENZIO, Istoria de' Tremuoti avvenuti nella Provincia della Calabria ulteriore, e nella Città di Messina nell'anno 1783 e di quanto nella Calabria fu fatto per lo suo risorgimento fino al 1787 preceduta da una Teoria, ed Istoria Generale de' Tremuoti, 2 voll. Stamperia regale, Napoli 1783.

ZANOTTI BIANCO 1989 - U. ZANOTTI BIANCO, Carteggio 1919- 1928, V. CARINCI, A. JANNAZZO (eds.), Laterza, Roma-Bari 1989.

ZANOTTI BIANCO 2006 - U. ZANOTTI BIANCO, Tra la perduta gente, Rubbettino, Soveria Mannelli 2006.