

# THE TERRITORIAL ORGANIZATION OF THE AMALFI COAST: NATURE AND MAN'S INTERVENTION

Maria Russo

Università della Campania “Luigi Vanvitelli”

phone 3397269463, e-mail: [mariaarchetta.russo@alice.it](mailto:mariaarchetta.russo@alice.it)

**Abstract** – The Amalfi Coast is characterized by jagged mountain ridges and valleys that include streams and plunges into the sea with steep cliffs, here and there interrupted by short sandy coasts. The coastal and inland towns contribute to the beauty of the landscape, rich in historical and artistic evidence from the Middle Ages. In fact, the celebrated landscape is largely the work of the intense work carried out by the inhabitants between the 10<sup>th</sup> and 13<sup>th</sup> centuries, when they shaped the steep slopes with terracing, which made the development of agriculture possible. At the same time, urban agglomerations expanded, almost unique examples of adaptation to difficult environmental conditions. A multitude of mule and pedestrian streets ran through the area, constituting the direction for urban expansion and ensuring connections between the various centers and with the neighboring Salerno and Neapolitan areas. The study aims to analyze the natural and anthropogenic components of the whole, today threatened by geological instability and by the growing demands related to traffic and mass tourism.

## Headings

The Amalfi Coast corresponds to the southern part of the Sorrento Peninsula, extending between Positano and Vietri sul mare, the Lattari mountains, a branch of the Campania Apennines, the province of Naples and the valley of the Sarno river. The extremely inaccessible territory is closed behind by rugged mountain peaks and overlooks the sea with high cliffs, interspersed with deep valleys in which torrential streams flow, coming from the rear hills, which often flow into the sea with spectacular effects, like the Schiatro in the fjord of Furore.

The impassable environment was transformed into a hospitable context between the tenth and thirteenth centuries, by means of a capillary work of steeply sloping soil that led to the formation of flat terraces consisting of narrow strips of land contained by dry stone walls, which allowed the “miracle of agriculture”. The work also represented an organic control system for the land and water, captured and destined for irrigation [23]. The terracing technique was also adopted for the layout of the buildings which, resting on a lower level and adhering to the rear rocky bank, develop in height, acquiring greater thickness, as the retraction of the slope allows the expansion of the pose. A dense network of roads, mostly stairways, was traced to serve the possessions, constituting the backbone for the urban settlements, in the full fusion of the natural landscape with the built. The centuries-old isolation in which the coast lived up to the nineteenth century has preserved much of its original, exceptional naturalistic and environmental characteristics, which in 1997 benefited it from being included in the UNESCO World Heritage List.

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## The naturalistic and environmental peculiarities

The area in question, with its terraced landscape [2, 8, 9, 13, 14, 24], has strong similarities with the Cinque Terre of Liguria, inscribed in the World Heritage list with similar reasons [10, 15]. Renowned tourist destination at an international level, is generally associated with the maritime sector, with scenic coasts, rich in enchanting views, with small coves, remains of defense towers and charming towns, full of historical stratifications and grandiose emergencies. architectural civil and religious, mostly medieval, intact or in a state of ruin. The urban space is characterized by the soaring of extrados vaults, bell towers and domes, often adorned with polychrome stone inlays and colored majolica elements, crowned by the hills behind with their rugged profile and the lemon groves on the terraces.

Equally enchanting are the inland areas, where the different streams generate lush valleys, with picturesque waterfalls and rare specimens of flora and fauna. The Valleys of the Mills and Ironworks in Amalfi, the Dragone di Atrani, the Sambuco-Reginna di Minori and the Reginna Maior between Maiori and Tramonti are unique, high-quality environments that have been immortalized by Italian and foreign artists since the 19th century. Their charm is enhanced by important evidence of industrial archeology, such as mills and paper mills, which exploited the driving force of water, which have now disappeared or are in ruins.

A significant component of the landscape, which has gone unnoticed and only recently the subject of systematic surveys, is linked to the karst nature of the soil which generates many caves along the rocky walls, in inaccessible and often inaccessible places, the most imposing ones reported since the past for their naturalistic peculiarities. Used by man, thanks to the insertion and completion with masonry elements, they compose articulated systems, derived from the inseparable union between the cavity and the built parts, which are configured, at times, as autonomous organisms, which replicate the language of *sub divo* architecture, simply implanted in the cave that protects them, in other cases, as complements or closures of the same. Over time subject to significant increases and variations in use, they are largely threatened by abandonment, by abusive occupations, landslides, slopes and various phenomena, or by the isolation resulting from the cancellation of the ancient road connections [3].

So far, attention has been focused almost exclusively on episodes of a religious nature, associated with the hermit cult, especially the work of Greek monks, present on the Coast between the 9<sup>th</sup> and 10<sup>th</sup> centuries [5].



Figure 1 – The Amalfi Coast (Google Earth).

Figure 2 – Amalfi and Atrani from the west. Up Pogerola, Pontone, Ravello.





Figure 3 – Maiori, S. Maria de Olearia.



Figure 4 – Amalfi from the sea.

Some cases are famous, such as S. Maria de Olearia, installed inside a large cave, near Maiori, with a composite structure including the monastic residence and three superimposed chapels, decorated with important frescoes [1].

Recent inventory campaigns have significantly expanded the field, highlighting that the use of caves was not only for worship purposes, but involved all aspects of daily life, in which the housing function merged with the productive and zootechnical one, often gathered in very small spaces. The destination of the rock heritage for civilian uses highlights a new aspect of the Coast, already observed in other Italian areas [4], namely that the local populations of peasants, breeders and shepherds also exploited the caves for the needs of daily life [20].

## The streets and urban settlements

It has been anticipated that the road network was the connective element of the whole, ensuring internal communications and pushing towards the Neapolitan and Sorrento area, the Agro Nocerino-Sarnese and the Salerno area. The impervious paths, which can only be covered on foot or by mule, took place with a hierarchical role: the main ones exploited as far as possible the less steep lines and welcomed the secondary ones, almost always steeply sloping stairways, which cut perpendicularly the slope, leading to the mountain areas and the sea, branching off into paths serving homes and crops.

The entire system of routes in the western sector of the coast was grafted on the Via Maestra dei Villaggi, a veritable monument due to its architectural, environmental and landscape features. Starting from Amalfi, with a succession of steps and rare flat sections, it crossed the seaside villages of Pastena, Lone and Vettica Minore, of which it constituted the backbone. Then climbing towards Tovere, it reached the Agerola plateau with an impervious zigzag trend, up to the Neapolitan side.

The network remained almost unscathed until the first half of the nineteenth century, when the construction of driveways completely subverted the way of traveling with the trend on the edge of the coasts, tunnels, hairpin bends, viaducts and bridges necessary to overcome reliefs, differences in height and frequent valleys, overlapping or flanking the ancient routes [22].



Figure 5 – Atrani.



Figure 6 – Cetara.

The main roads today are the state road 163 of the Amalfi Coast “The most beautiful road in Italy” and the regional road 366 of Agerola, which greatly affected the original structure, with profound and irreversible upheavals in some of the towns crossed. The first, which runs from east to west along the entire coast, joined, in the first half of the 19th century, Amalfi with Vietri and, in the last quarter, with Positano and Meta di Sorrento; at the same time as this last stretch, the other was begun, directed from Amalfi to the Agerolino plateau and from here to Castellammare di Stabia, which ended only around 1930 [22].

Between the end of the nineteenth century and the first half of the twentieth century, connections were opened with the centers of the interior (from Atrani to Ravello and Scala, from Maiori to Tramonti), which, meeting on the Valico di Chiunzi, proceed towards the Agro Nocerino. In the last half century, where possible, the conversion of the old pedestrian road into a rolling stock has been undertaken. Despite the multiple alterations of the topography, produced over the centuries by natural events, such as landslides and floods, or by the aforementioned nineteenth-twentieth century works, it is still possible to read the primitive road development, up to the modern phases [22].

None of the coastal towns have origins prior to the Middle Ages. The territory, isolated from the rear areas and accessible only by sea, hosted some villas in Roman times - of which conspicuous remains were discovered in Minori, Positano, Amalfi and Tramonti - from which would come the large amount of bare materials - columns, capitals, urns, tombstones, etc. - extensively reused in subsequent factories.

The various villages are located both on the coast and in inland areas, at different heights and with different characteristics. Famous for their exceptional architectural and panoramic peculiarities, in reality, they are the result of ingenious adaptations to difficult territorial constraints and of the maximum exploitation of the scarce resources available. Originally it is the same settlement typology: a small nucleus of houses around a church, overlooking a road that forms its backbone and, extending itself, acts as a link with similar neighboring centers. Amalfi - the capital of the ancient maritime republic - is the main city. Located almost in the center of the coast, it marks a clear difference in layout between the towns that rise to the west and to the east. The former - Conca dei Marini, Furore, Praiano and Positano - are located high up, above rocky walls that plunge into the sea. Instead, Amalfi and those on the eastern side - Atrani, Maiori, Minori, Cetara - up to Vietri, arrange themselves at the mouth of streams, overlooking the beach and occupying the same sides of the valley in which the waters flow [21].

Thus sets of valley floors are configured, crossed by a stream, today covered becoming the main road, with the buildings arranged on the lateral slopes, reachable by stairways, sometimes with a frightening inclination and dark underpasses. The organization is conditioned above all by the width of the gorge in which they are located: narrow in Atrani - the bed of the Dragone stream being little more than a furrow - dilated in Maiori, where the course of the Reginna widens as it descends from Tramonti. The scarcity of space gives rise to a suggestive compactness of the inhabited areas, arranged on the terraces which, overlapping, often create a continuous curtain of white and sunny complexes facing the most favorable exposure with panoramic loggias. In the form of the building, we find the common characteristics of the Mediterranean countries - terraces, extradados vaults, domes, polychrome decorations - which refer to the Byzantine and Islamic traditions, introduced thanks to the intense trade exchanges with the Near East, North Africa and Spain. Amalfi summarizes all the characteristics of the eastern maritime centers. Overlooking the beach divided by the Canneto outlet, it is enclosed to the east by Monte Aureo, crowned by the medieval tower of the Ziro and ending at the sea in the Capo di Atrani, equipped with the tower called "Saracena", and to the west by impassable and rugged overhanging [12].

The dense urban fabric of Amalfi, assimilated to that of the Islamic countries, with which the city had relations since the 10<sup>th</sup> century [7], also remains in the municipalities that follow one another to the east. In fact, we find it on a smaller scale in the contiguous Atrani, compressed between Monte Aureo - in whose elevated sector there are rocky chapels and large natural cavities - and Monte Civita, on whose offshoot to the sea you can see the collegiate church of S. Maria Maddalena, on the site where at the time of the Duchy was the fortress of S. Sofia. Unfortunately, the state road, running with a multi-span viaduct, raised on the beach in the first half of the nineteenth century, irremediably occluded the view to the sea [22].

Continuing on, you will find the towns of Minori and Maiori, located in the valley crossed by the Reginna minor and Reginna maior rivers respectively. The coast, particularly extended in Maiori, is enclosed on each side by a promontory, with the viceregal towers of Mezzacapo, incorporated into the castle of the same name, guarding both shores, "Paradiso", west of Minori, and "Normanna" to east of Maiori [17].

The original center is located on the slopes that flank the central flat sector,



Figure 7 – Maiori, plan.

Figure 8 – Vietri sul mare.



crossed by the torrent covered in the nineteenth century, on which the ancient pedestrian streets coming from the small suburbs converge which, due to the elevated position and the rugged orography, retain much of their plant. On the downstream area, parallel to the beach runs the state road that formed the route for subsequent settlements, favoring, especially after the 1954 flood, a predominantly speculative building [21].

Cetara winds sinuously into the gorge defined by the stream, covered in the urban stretch, which flows into the beach, dominated to the east by the imposing Angevin tower, increased in the viceregal age. On the two sides of the watercourse, there are the ancient nuclei, the eastern one between the defensive garrison and the church of S. Pietro, the western one with a sparse texture, gathers around the former convent of the minor friars, today City Hall. Vietri sul mare, on the eastern edge of the coast, occupies a particular position on a sort of plateau, contained by high walls that plunge into the sea and into the Molina stream, at the mouth of which is the Marina hamlet, protected by the towers of Albori and Crestarella. The picturesque initial set, perched in the elevated area and dotted with domes, bell towers and buildings decorated with refined Baroque stuccoes, has expanded disorderly towards the valley in a compact aggregate that covers the entire slope.

In the area west of Amalfi, the complete variation of the urban topography is immediately perceived. Beyond the deep depression that closes the city on this side, its five hamlets extend, Pastena, Lone and Vettica Minore, which overlook the sea above high cliffs, Tovere and Pogerola, on the internal reliefs.

With the exception of the latter, reachable by a path that goes up the ravine or from the city center, the others take place mainly along the so-called Via Maestra dei Villaggi and on the transversal and parallel minors that converge there, denoting a linear organization, typical of this sector [6].

The same condition is found in Conca dei Marini, closed to the north by high rocky walls, to the south by overhanging cliffs and to the east and west by deep gorges.



Figure 9 – The coast from Amalfi to Conca dei Marini.

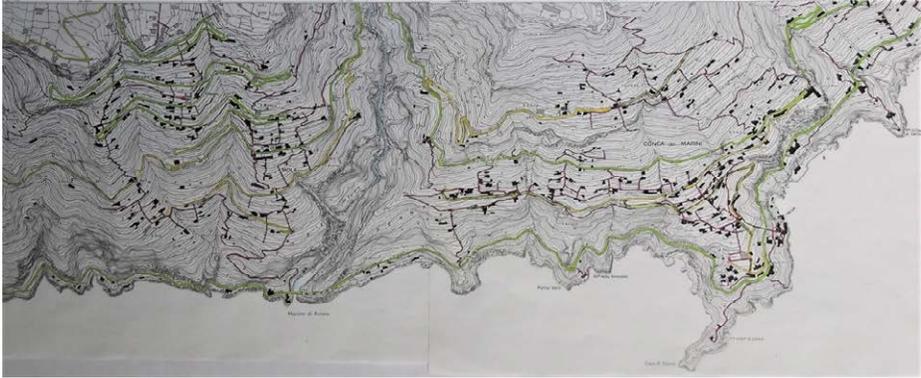


Figure 10 – Furcore, Conca dei Marini, Tovere, plan.

Here, in the hospitable areas, small scattered agglomerations and a tiny nucleus were formed near the natural harbor, up to the mid-nineteenth century among the few sheltered landings near Amalfi. The buildings were arranged along the edges of the road - today made suitable for vehicles - which, following the slope, completely crosses the municipal territory from east to west, welcoming from the mountain and valley tiring stairways and touching the three parishes around which they settled in the Middle Ages the urban centers, reaching the border with Furcore. About halfway there is the only open space, from which the connection with the larger nucleus started, extended on the promontory of the "Vreca, from where it branched off towards Capo di Conca, with the viceregal tower, and towards the Marina [21].

Furcore extends to the west, beyond the deep valley where the Schiattro torrent, which flows into the famous fjord, on which, at the end of the nineteenth century, the bold single-span bridge of today's SS. 163. The soil, which rises from the sea up to the Agerola plateau (about 600 m) has a strong steepness, which makes it extremely difficult to travel, with few buildings arranged in a complex manner on the slope [16]. Despite the upheavals brought about by the Amalfi-Agerola, which cuts it with repeated, pronounced hairpin bends, it is possible to recognize the distribution in small groups, which is associated with that of the last century, set along the road and in the immediate vicinity.

Praiano and Positano fall into a different typology, being distributed on the slope in a not very compact way, by overlapping alignments served by stepped connections, which cut the level curves at 90°.

The first is made up of Praiano and Vettica Maggiore, which occupy the two sides of the promontory that ends at the sea with Capo Sottile, so they face east and west respectively. Praiano, at a higher altitude, is just lapped downstream by the SS. 163, along which the recent expansions line up, and crossed by a road that leads to the square in front of the parish church of S. Luca. A similar organization is found in Vettica Maggiore, located up to the limit of the eminent coastal cliffs. The village, at the center of which is the church of S. Gennaro, is entirely penetrated by the state road [21].

Positano develops along the gully that acts as the main road.



Figure 11 – Vettica Maggiore.



Figure 12 – Positano.

The eastern side, which descends to the "Spiaggia Grande", is gentle, the opposite occupies the sides of the hill that rises between the central beach and that of Fornillo, extending to the top. The primitive structure, even if it is not disturbed by the state road, which surrounds it upstream with a sinuous trend, however, appears to have changed due to the enlargement of some old tracks. Despite this, the ancient road network is still identifiable, which features longitudinal main roads, connected by orthogonal secondary roads that go up the ridges, serving the residences which, leaning against the rocky bank, constantly change orientation [21].

The inland towns, Scala, Ravello and Tramonti, are made up of nuclei scattered over very large territories, at different altitudes.

Scala extends on the ridge overlooking the Dragone valley from the west. It consists of a main aggregate, pertaining to the former cathedral of San Lorenzo, and several hamlets that are arranged longitudinally from north to south, on roads that follow the contour lines, with buildings upstream and downstream. Today connected to the provincial road, in the past it was reachable only through the winding climbs from Atrani and the northern area of Amalfi. The latter comes to Pontone, whose very sloping ground exploits a winding system around the ridge, on whose southern limit the imposing and spectacular ruins of S. Eustachio. From here a steep flight of steps, continuing north, goes to the other villages. The environment is very suggestive, due to the presence of churches and palaces of medieval origin, some still adorned with stone inlays, and Arab baths [18].

Ravello, located on the opposite side of the valley, reflects a different condition, with nuclei aligned on the edges of the roads going from north to south and on the long tiers, perpendicular to the level curves, which go north or descend east, up to the sea. The largest inhabited area extends over a tapered plateau, on the top of a massive rocky spur emerging between the Sambuco and Dragone valleys, in whose almost vertical walls there are interesting karst phenomena that give rise to numerous caves. Gathered around the former cathedral, it is famous for the presence of religious artistic emergencies and medieval palaces, among the most important on the coast - such as the well-known Villa Rufolo - which stand out with their size inside the center. It retains the original structure with an elongated oval shape, with exclusively pedestrian streets, which ends on the sheer wall on which Villa Cimbrone is located. The context is characterized by the widespread presence of structures in which inlays, bare elements, Arab baths, are preserved.



Figure 13 – Ravello.

Tramonti extends into the Regina basin, north of Maiori, on a vast territory, in which steep parts alternate with others of moderate slope, with a complex and atypical aggregation. It consists of thirteen hamlets, which go from south to north on the two sides of the valley where the river flows with its tributaries, composing small villages around a church, exploiting more or less flat areas and connected by a dense network of streets, today, made almost entirely suitable for vehicles. Running from an altitude of 150 m a.s.l. of Pucara at 650 m of the Chiunzi pass, has extremely varied landscapes, from almost maritime to mountainous, with woods that take over as you go upwards [19].

As can be deduced from these notes, the conservation of the traditional environment of the Amalfi Coast cannot ignore the enhancement of all its components, both natural and attributable to human intervention, which has created a unique whole, shaping terraces, implanting cities of great architectural and artistic value in difficult and inhospitable sites, generating a panorama celebrated all over the world. These characteristics were the basis of recognition in the UNESCO Heritage List (criterion I, IV, V, Integrity and Authenticity), as values to be passed on to future generations [11].



Figure 14 – Amalfi, Scala, Ravello, plan.

Figure 15 – Tramonti to Pucara at Polvica, plan.

## References

- [1] Bergman R.P., Cerenza A. (1994) - *Maiori S. Maria de Olearia. Guida alla visita dell'abbazia medievale*, Centro di Cultura e Storia Amalfitana (CCSA), Amalfi.
- [2] Bonardi L., Varotto M. (a cura di) (2016) - *Paesaggi terrazzati in Italia. Eredità storiche e nuove prospettive*, F. Angeli, Milano.
- [3] Caffaro A. (1986), *Insedimenti rupestri nel Ducato di Amalfi*, Arci Postiglione, Salerno.
- [4] De Minicis E. (a cura di) (2008) - *Insedimenti rupestri di età medievale. Abitazioni e strutture produttive. Italia centrale e meridionale*, CISAM, Spoleto.
- [5] Fiengo G., Abbate G., Cinque A., Russo M. (2001), *L'insediamento rupestre di S. Barbara in Agerola*, Rassegna CCSA, n.s., XI (21-22), 9-56.
- [6] Fiengo G., Abbate G. (2001) - *Case a volta della costa di Amalfi*, CCSA, Amalfi.
- [7] Guidoni E. (1979) - *La componente urbanistica islamica nella formazione delle città italiane*, in F. Gabrielli - U. Scerrato, *Gli Arabi in Italia. Cultura, contatti e tradizioni*, Schewiller, Milano, 573-597.
- [8] <https://www.italianostra.org>.
- [9] <https://www.paesaggiterrazzati.it>.
- [10] <https://www.parconazionale5terre.it>.
- [11] <https://whc.unesco.org/en/list>; <https://www.unesco.it>.
- [12] Jinnai H., Russo M. (2011) - *Amalfi. Caratteri dell'edilizia residenziale nel contesto urbanistico dei centri marittimi mediterranei*, CCSA, Amalfi.
- [13] *La cultura dei terrazzamenti per la salvaguardia del paesaggio. Tecniche, risorse, strumenti*, Atti del convegno internazionale Italia nNostra, Menabò, Ortona 2004.
- [14] Maniglio Calcagno A. (2006) - *Architettura del paesaggio: Evoluzione storica*, F. Angeli, Milano.
- [15] Mariotti M. (2007) - *Cinque Terre*, Servizi Editoriali Edizioni.
- [16] Ricci G. (2007) - *Amalfi, Furore, Ravello. Architettura del paesaggio costiero*, Giannini, Napoli.
- [17] Russo F. (2002) - *Le torri anticorsare vicereali della Costa d'Amalfi. Immagini e suggestioni della guerra di corsa*, CCSA, Amalfi.
- [18] Russo M. (1996) - *La permanenza del patrimonio edilizio residenziale medioevale di Pontone*, in "Scala nel Medioevo", Atti del Convegno di studi, Scala 27/28 ottobre 1995, CCSA, Amalfi, 199-229.
- [19] Russo M. (2008) - *Note sul patrimonio edilizio civile*, in *Tramonti la terra operosa: le matrici della vita rurale in costa d'Amalfi*, CCSA, Amalfi, 443-495.
- [20] Russo M., Ricci G. (2009-2010) - *I siti rupestri della Costa di Amalfi*, Protocollo d'intesa Comunità montana Penisola Amalfitana – Centro di Cultura e Storia Amalfitana.
- [21] Russo M. (2016) - *Il disegno architettonico ed urbano della Costiera Amalfitana*, Rassegna CCSA, n. s., XXVI (51/52), 171-202.
- [22] Russo M. (2016) - *Realizzazioni architettoniche e nuovi assetti urbani in Costiera Amalfitana tra Otto e Novecento*, CCSA, Amalfi.
- [23] Sebastiano V. (2018) - *Il sistema dei terrazzamenti in Costiera Amalfitana*, CCSA, Amalfi.
- [24] Tosco C. (2017) - *Il paesaggio come storia*, Il Mulino, Bologna.