

Integrated Planning Policies for the Ecological Territories and Ecocities: Implementation of a Smart Sustainable Approach



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Abstract The paper, which reports research started in 1987 and extending until the recent ERSA Congresses, about innovation and anthropization processes, focuses on the word *crisis*. This offers a chance to move from the industrial and mass town towards a more sustainable way of anthropization. Our wisdom—Sapienza is the name of the first University in Rome—must consist of considering local conditions, not as design constraints, but as suggestions for plans and projects: i.e., starting from the *place*, from geomorphologic elements, historical events etc., with the responsibility of all actors involved in the organization and physical structure of territory and towns. This concept developed by Settis in his *Lectio Magistralis* (*L’etica del architetto e il restauro del paesaggio*. University Mediterranea of Reggio Calabria, Reggio Calabria, 2014) for “Ad Honrem” Degree in Architecture, titled *The ethic of the architect and restoration of landscape* (*L’etica dell’architetto e il restauro del paesaggio*). He reminded us of Vitruvius’ approach that today we call multidisciplinary, with the fundamental role played by context. It means overcoming the industrial paradigm—recalling metaphorically the word that Khun (*The structure of scientific revolutions*. Chicago University Press, Chicago, 1962) used for scientific revolutions—evolving over 350 years to build another developmental path. Calabria presents an important opportunity to propose novel territory based on man—nature alliance (E. Scandurra in *L’ambiente dell’uomo. Verso il progetto della città sostenibile*. Etas Libri, Milano, 1995): an unedited and unique landscape. This can be accomplished in harmony with the philosophy of *Smart city*, i.e., realizing local inclusive communities that are sustainable, both materially and socially. The paper illustrates this general picture, highlighting opportunities for a different scenario by referring to the Reggio Calabria Metropolitan case. It stresses the need for a “cultured technology” *Del Nord* (*L’immaginario tecnologico metropolitano*. Franco Angeli, Milano, 1991) to overcome the unsustainable development that was identified first in *The Limits to Growth* (Meadows D.H. Mondadori, 1972). Such a culture must be based on integrated planning, as required by the Leipzig Charter (2007)—but it seems forgotten—able to

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connect rural and not rural areas, small, medium, big towns and metropolitan areas. Moreover this requires diffusion of those fundamental elements to continue advocacy of an “ecological approach” based on knowledge of local conditions, both material and social. After a short introduction, the paper, using the “phenomenological” methodology, describes facts and provides scenarios and operative hypotheses.

Keywords Ecological approach · Integrated town planning · Crisis as opportunity

1 Introduction

The ways of anthropization undergirding the First Industrial Revolution are showing all their limits, and the publication of the *The Limits to Growth*¹ was an emblematic moment highlighting that fact. The scaled economy becomes the basic criteria in building the industrial city, alongside those that have always been among the formative elements of each associated settlement, i.e., agglomeration economies. The elements, however, are also of a broader and different nature, as Appold and Kasarda (1990) pointed out regarding *human ecology*.² In Italy, beginning with its unification, building has been one of the main economic engines, and it has become even more powerful since its industrialization. After the World War II, cities have continued to expand, whether legally or illegally. But the destruction of territorial structures accelerated in the mid-1970s, as the distinctive landscapes characterizing the “Land of 100 Campaniles” were lost in an undifferentiated sea of construction. In the South of Italy, this is all the more significant because of the lack of other economic activities. Industrialization of those areas, thanks to Casmez (National Agency to support industrial development of less developed areas), started but then stopped³ for exogenous and endogenous reasons. Destruction of landscape must be stopped, and other development paths, compatible with an environmentally sustainable context and social equality, must be sought.⁴

¹Book commissioned by the President of the Club of Rome at the MIT of Boston.

²The same word used in many pages of Encyclical *Laudato Sii* by Pope Francis, elaborated by a group of 40 scientists (2015: p. 5, 115, 118, 119, 120). It talks of integral ecology, i.e. economic, social and cultural, and also requires “Educate to Alliance between Humanity and Environment” (pp. 209–215), similar to man—nature alliance required by Scandurra, mentioned previously. Among its references this paper includes the *anthropocosmos model* by Doxiadis (1968) based on the relations between οίκος, environment, λόγος, analysis, and behavior.

³Many “remnants” of dismantled industrialized plants remain in these territories and also pose high environmental hazards.

⁴This contribution continues a path started (1988) with participation in MPI research project INTRA *Technological Innovation and Territorial Transformations*, DipPiST, Fac. of Engineering, Naples, and in the programs (1989) *Technological innovation, territorial transformations and protection of the natural and anthropic environment* and *Technological innovation, territorial transformations*, Dep. TECA, Fac. of Engineering, Rome. Starting in 1987, with S. Macchi, we began to publish papers at AISRe Conferences about *Telematics and Territory*. Subsequent

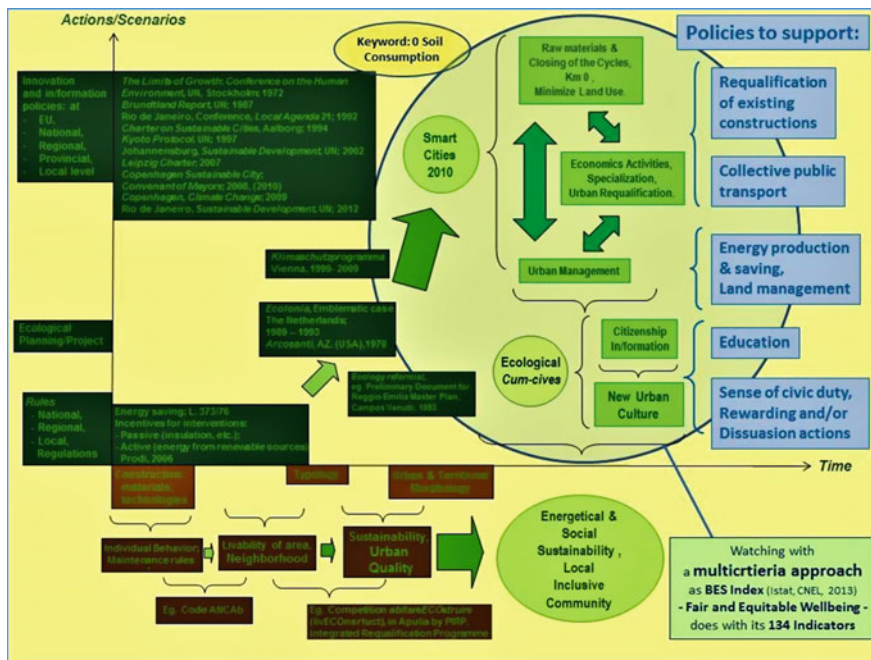


Fig. 1 Devastated landscapes in the Metropolitan area of Reggio Calabria (Source S. Aragona)

Reggio Calabria, one of newly institutionalized metropolitan areas, is an emblematic case illustrating this challenge (Fig. 1).

Phenomenological thinking guides the study—considering local, natural, historical, and landscape resources—and suggests a possible, diverse, and very original ecological scenario. That scenario must be based on the idea of territory, city, and landscape, that contains the local social context (Barca 2010). This implies the importance given to environmental sustainability by the population: knowledge and awareness of the possibility/need for a different development path from that there pursued over the recent 40 years (Scheme 1).

research studies available in *La città virtuale: Trasformazioni urbane e nuove tecnologie della informazione* (The Virtual City: Urban Transformations and New Information Technologies 1993) and *Ambiente urbano e innovazione. La città globale tra identità locale e sostenibilità* (Urban Environment and Innovation. The Global City between Local Identity and Sustainability 2000).



Scheme 1 The overall ecological scheme (Source Aragona 2015a)

2 I Have a Town Planning Dream..., A Story to Be Resumed

Between beginning of the 18th century and 1861, the Bourbon Kings in Mongiana and Ferdinanda created industrial settlements⁵ in which the iron extracted from the area of the Serre (VV) was utilized. The same iron was used to forge coins at Kroton, *Kρότων*, which had been founded by Achaean settlers in the second half of the 7th century BC. The Borbonia issued laws to protect local forests because wood was indispensable for the production ovens. An industrial port in Pizzo (VV), and an “ad hoc” road to reach more market areas and lower transport prices were built. All this, in today’s language, means creating local multipliers, synergies, based on use of local resources—iron and timber—safeguarding, with planning and management, a renewable resource, i.e., the trees. Moreover, the trees with tall trunks and with deep roots, served to diminish hydro-geological risk, in accord with the criterion of *naturalistic engineering* (Fig. 2).

⁵The Borbona, who erected San Leucio and the Royal Palace of Caserta, and sponsored many eminent innovators in science and technology, were at the forefront of productive and cultural innovation (Aragona 2012: cap. 1).

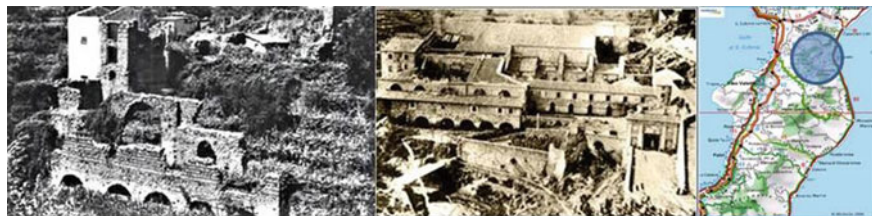


Fig. 2 The industrial plants in Mongiana (VV): the current state (left); the original (center); the geographical location (right) (Source Bivongi e Dintorni)

After 1861, the two new ovens were never inaugurated and, a few years later, the production infrastructures were decommissioned, while others sprouted in North Italy: it was the era of the great growth of UK industry that became major industrial competitor of the Bourbon State.⁶ In this industrial area, there had been about 4000 employees, much more than the total of entire Sabauda Kingdom at that time.

History contains yet another fascinating fact: modern ecological thinking originated in Calabria, between Cosenza, city of Bernardino Telesio, and Stilo (RC) from which his disciple Tommaso Campanella comes. The former wrote, from the mid 16th century—in more times—*De rerum natura juxta propria principia* (The nature of things according to their own principles). The latter wrote in 1602 *La città del sole* (The city of the sun): he went back to Platone (V century AC) and was strongly influenced by thinkers such as Thomas More with his *Utopia* of 1517, while the II edition (1623) *Civitas Solis idea republicae philosophica*, written in vulgar Florentine, edited in Freiburg, was coeval of *New Atlantis* written in 1624 and published in 1627 by F. Bacon. While Saint Francis of Paola created a monastic order, practically vegetarian, and the Certosa of Serra of Saints Stefano and Bruno in the Calabria Ulteriore—at the present the central-south part of Region (VV)—despite many destructive events, becomes well known in Europe⁷ (Fig. 3).

With the beginning of the travels of education/exploration of the *Grand Tour*, in the 18th century, foreigners discovered wonderful landscapes,⁸ to use that romantic term. The Flemish painter Escher, during his trip to the South in 1931, saw and

⁶It is not a mystery that the UK supported Garibaldi's adventure.

⁷Founded by Bruno of Cologne in 1091 as the Hermitage of Santa Maria di Turri or of the Wood, the church was consecrated solemnly on August 15, 1094, with Ruggero I of Calabria and Sicily present. During this occasion, the king extended the land donated to Bruno, by including further areas of Stilo and the farmhouses of Bivongi and Arunco, which, centuries later, became the sites of the iron industry. Often it was almost abandoned and many reconstructions had to be undertaken, especially due to earthquakes that struck Calabria.

⁸As well illustrated in the events (2015), by T. Manfredi, *Che bel Paese. Esplorazioni nell'Italia del sud sulle tracce della spedizione Saint-Non* (What a beautiful country, Explorations in Southern Italy on the traces of Saint-Not expedition) and *Old Calabria* by C. Malacrino and A. Quattrocchi.

Fig. 3 Certosa of Serra Saints Stefano e Bruno
(Source 3bmeteo.com)



drew many of them⁹: The fascination was so strong that he preferred Southern architecture, so rich with Arabian influences, in confront with the Renaissance or Baroque style that he also knew very well after the many visits to Italy.¹⁰

These historical/cultural riches are spread over a sparsely populated territory. Reggio Calabria, the most important town, has only about 185,000 inhabitants. So it is medium/small town on the Italian scale, even more so at the European level. Catanzaro, a region capital, does not have even 100,000 citizens, among the other provincial capital towns, Cosenza has about 70,000 residents and with nearby Rende only 104,000 inhabitants, Crotona 61,000 and Vibo Valentia 34,000. Lametia Terme is the other unique center which reaches 70,000 residents. There are just six centers between 35,000 and 20,000 inhabitants, seven between 18,000 and 15,000. All the remaining urban centres—i.e., just a little less 400 of the 409 total—have population below that figure, often amounting to only a few hundred residents. Such a territorial context would suggest the proposition of a landscape characterized by a strong historical-naturalistic value, based on protection and enhancement of local resources.

Reggio Calabria's metropolitan area, i.e., the 97 Municipalities of its Province, in this respect is a great opportunity to propose an "original" metropolitan city whose originality is based on cultural heritage, deriving from the ancient history of its territorial anthropization. And, thanks to the magnificent naturalistic resources, though strongly compromised, there are other important potentialities for building the above said characterization. In the meravilious Natural Park of the Aspromonte,

⁹Quoting one for all Tropea (VV), cover of the book *Costruire un senso del territorio* (Building a sense of territory) by Aragona (2012).

¹⁰See the video "*M.C. Escher e le visioni mediterranee*" (M.C. Escher and the Mediterranean Visions) by A. Fiorista, produced for the National Design Workshop *Idee e progetti per il recupero e la riqualificazione in aree minori e non nell'epoca della globalizzazione* (Ideas and projects for recovery and retraining in minor areas and not in the era of globalization), S. Aragona as Scientific Manager, held in 2005 in Tropea (VV).

Fig. 4 Gambarie (RC), skiing watching the sea
(Source S. Tocco)



the mountains are so high that it is possible to ski in places such as the Gambarie ski resort (1350 m. ASL), only 35 km away from Reggio Calabria and the sea (Fig. 4).

Considering all this, regional planning requires the ecological approach as a basic philosophy: that is, having local conditions as “design suggestions” and avoiding choices that may be useful in the short period but not valid in the medium or long term. This metropolis must be a “network of innovation, history and territories” (Fig. 5). It must be able to be built as a regional-scale network. Thus, with Messina, it must become a reference for the entire Mediterranean area (Aragona et al. 2014).

It must contain the Gioia Tauro Harbour, until a few years ago the main HUB for Mediterranean container ships, as essential infrastructure for the regional and national economy. The network of the three universities present in the region, i.e., in Reggio Calabria itself, in Cosenza and in Catanzaro, must become more effective as they are among the main resources of the territory. Thanks to the limited size, the mentioned cities could characterize themselves as university towns similar to those in other parts of the world. Tourism must become a driving force for enhancing and protecting these territorial resources.

3 The Great Difficulties

But all the previously mentioned centers do not possess other urban realities similar to those of other Italian regions, e.g., Marche or Toscana. Reggio Calabria has only Messina as a neighbouring town, 3 km distant across the Strait.

There are not, in many cases, some of the conditions that Dematteis (1990) identifies to form *territorial reticles* and thus specializations: the presence of primary urbanization is not always guaranteed (Fig. 6); the financial system is not adequate; the administrative/policy level is often low; local knowledge is being lost itself; the absence of organized crime. On the regional scale, 1999 POR (Operative Regional Plans), with *Small Municipalities Network* Action has already tried to trigger virtuous processes of collaboration/competition between the small cities, i.e., the majority of its cities.

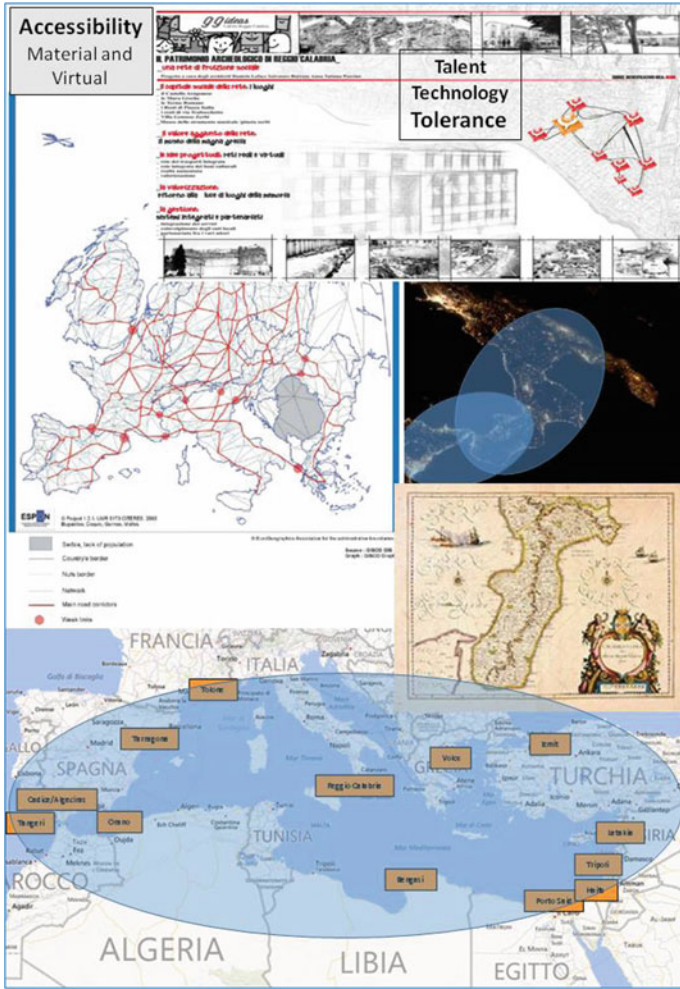
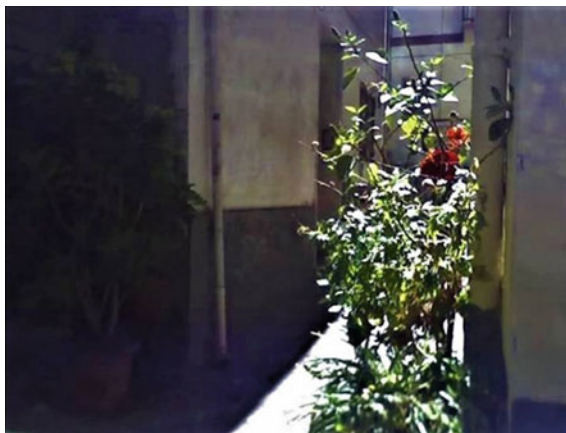


Fig. 5 Reggio Calabria, network of innovation, history and territories (Aragona 2015b)

But the outcome has been not satisfactory, as well as other instruments, e.g., the Territorial Integrated Projects, did not achieve significant results in terms of synergic strengthening between the centers. In addition, southern cities sit among the lowest rankings for *Tolerance*, one of the three elements—together with *Talent* and *Technology*—the bases of creativity and therefore of competitiveness.¹¹ Instead, according to the canonical geographic indicators, they should have higher rankings. The closure of territorial systems is among the various elements that determine this

¹¹Methodology proposed by prof. Florida of Carnegie Mellon University in Pittsburgh (2003) and tested by experiment between 2004 and 2005 by Tinagli (2006)—of Florida research group—on the 103 Italian Provinces.

Fig. 6 Collection of rain water in Reggio Calabria
(Source S. Aragona)



poor result: the more a territory is inaccessible to cultural exchange, the less it is open to novelty and change.¹² This social closure is associated with the problem of individualism, that, according to some (Cananzi 2016), in Reggio Calabria is “anthropological”, although it would be interesting to learn how it was before the unification of Italy.

Reggio Calabria, even if institutionally considered a metropolitan city, has not one characteristic of a city with this status: neither the population¹³ nor the relevant economic activities.¹⁴ It has also a geographical isolation, its remoteness from other important centres: a fact that does not characterize the other metropolitan areas. The only two promising realities are, as mentioned before, Messina¹⁵ beyond the homonymous Strait and Gioia Tauro with its port. The port is currently (mid 2017) in a crisis—of the total 1000 workers, 400 have been laid off—although its potential is great, as evidenced by the primacy it had until recently with container-ship traffic as already mentioned. But there are no effective links with the territory, and no horizontal multipliers, or intermodal exchange nodes have been realized.

The morphology of the territory and infrastructure shortage, associated with the lack of services,¹⁶ cause the limited accessibility. The Regional Transport Plan

¹²One of the elements of tolerance is the percentage acceptance of homosexuality (Turani 2005).

¹³The metropolitan area has only 566,507 inhabitants, just over the 559,820 of Cagliari, the smallest of all metropolitan areas (Cittalia 2013).

¹⁴The numerous activities related to spinning have never recovered significantly after the earthquake of 1908: with Villa San Giovanni, there were about 10,000 employees. The railway repair site, a major economic center of the city, was closed and the entire industrial area—the only one in the city—is being dismantled.

¹⁵The combined population of the metropolitan areas of Reggio Calabria and Messina is about 1,100,000 (Cittalia 2013).

¹⁶Only Reggio Calabria has six daily high-speed trains to Rome. Except for one that takes five hours and ten minutes, all others require a journey of more than six hours: carriages are not new (often recycled) and without services such as the internet (in any case there is none after Salerno).



Fig. 7 Along the river, next to the Eurac (left) in Bolzano and below the faculties of Reggio Calabria with the ruin of the student's house (Source S. Aragona)

2016, almost 20 years after the previous one, offers hope for improvement, also because a third of its recommendations are part of the National-level Strategies of 2015 (Malara 2016). The high-speed line should have a substantial upgrade; an intermodal HUB for railway is planned in Gioia Tauro Harbour; and a connection axis with Bologna is proposed through the Adriatic line. If Reggio Calabria wants to become a metropolitan area, it must have the Port of Gioia Tauro as one of its internal reference poles and create fast connections with it. This is also the thought of the Assessor to the *System of Logistics, Regional Ports System and Gioia Tauro System* of Calabria Region F. Russo, professor of Transport of the University of Reggio Calabria.

Since seismic and hydro-geological risks are strongly present throughout Calabria, studying and experimenting with solutions to deal with these risks would be an opportunity to create poles of excellence related to local universities.¹⁷ A strategy of information/education for inhabitants, technicians, and politicians needs to explain the effects between localizations and risks in the short, medium, and long-term period (Fig. 7). Moreover, rethink territory and cities using indicators as the ones of the “Environmental Energy Certification, Towards a Concordat Code for Sustainable Development” (*Certificazione Energetico Ambientale, Verso un Codice Concordato per lo sviluppo sostenibile*, ANCAb—Legacoop 2008a). It was used, e.g., in *abitaECO*struire Contest of ideas (ANCAb—Legacoop 2008b) and it was 2008!. All this, in a wider scenario of integrated ecological town planning, as in Faenza with its strategy of urban sustainable regeneration as illustrated by E. Nanni, head of Town Planning Dep. of the city, at the Congress of Italian Society of Town Planners (SIU) in 2016. Considering that questions are related at quantity but, with growing importance, involve the quality of life: for that ISTAT and CNEL since 2013 elaborated the 134 indicators of the Fair and Equitable Wellbeing and (*BES*) going beyond per capita income and GDP.

But in Italy, especially in the south, there is a big problem: the failure to consider territory and town as a public goods. One of our first missions as town planners and

There are no high-speed trains either from and to Catanzaro, regional capital, or to Cosenza. In recent years, night trains that linked for years the Region, and Sicily, with Northern Italy were cancelled. On the long-distance Intercity trains, there are no longer any refreshment services.

¹⁷Experiences made have been abandoned, as the case of *Seismic Risk Laboratory* of prof. Fera with the collaboration of arch. De Paoli, Dep. of Environmental and Territorial Sciences, Reggio Calabria University.

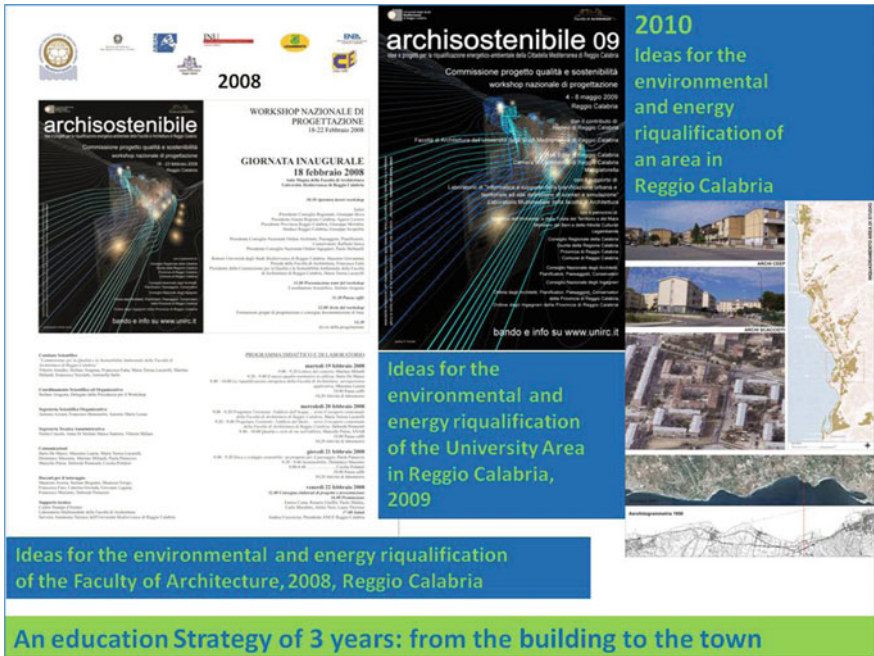


Fig. 8 Archisostenibile (Source S. Aragona)

teachers of urbanistic studies consists of making information and education about all this and in supporting the civic sense of the *cum-cives*, i.e., of citizens that share a common idea of *civitas* (Cacciari 1991). We have to build up smart and sustainable territories and towns using political strategies remembering that the word politics comes from *polis*, i.e., the art of managing the city: the first smartness is to help citizens to become “ecologicus” people. At the Faculty of Architecture of Reggio Calabria some time ago there has been a three-year initiative, called *Archisostenibile* (Sustainable architecture), to in/form awareness about these issues (Fig. 8).

These are topics on which the University of Reggio Calabria is at the forefront and participates in the European Universities Network for Energy.¹⁸ Equally innovative is NOW’s REWECH experimental project, *Laboratory for Electric Power Conversion of the sea waves*,¹⁹ one of the priorities in EU energy policy.

¹⁸In 2016 Prorector C. Morabito participated at the meeting *Human resources and new knowledge to build the future energy system* held in Trondheim (N).

¹⁹Founded by prof. P. Boccotti and directed by prof. F. Arena, with researchers and young collaborators, from the *Mediterranean* University of Reggio Calabria is one of its spin-off activities.

4 Political Choices Change the Territories: This Is the Final Note

It is then evident that the national and of wide area—such as the Region and/or the Province—policy strategies and those of the municipal level and, in the future, the metropolitan, guide the territorial transformation trajectories. This means that the *vocation* of a territory is also the consequence—but in a very relevant dimension—of man’s action.²⁰ Beware, however, because that may be unsustainable or become unsustainable, since sustainability must always be considered with respect to the specific context and the degree of scientific knowledge and technological level. The case of marble quarries is one of the most obvious examples of how, over the millennia, the landscape can be transformed, and more and more, quickly surrendered the advancement of extractive capabilities. And how all this creates many—increasing well known—risks for the health of both workers and residents of these extraction territories.²¹

But the cultural component is essential. In the case of the metropolitan area of Reggio Calabria, next to the necessary infrastructure for making and building networks, inhabitants, local and regional authorities must be convinced of the unsustainability of continuing to cement over the territory. This not only to avoid the disappearance of the opportunities offered by the magnificent panoramas, but also for reasons related to seismic and geomorphologic risk. Starting from these elements, many of the cities must be rethought and mobility must become sustainable, while now it is based on the use of the private car. As previously stated, the main task for us as town planners and urbanists is to better explain why the “ecological approach” is needed for a smart and sustainable city: relying on implementation of the many proposals and education of the local urban inhabitants. So, this means following the lesson of Gennari (1995) when he talks about “city pedagogy”.

One last consideration is about metropolitan areas in general. They have large peripheral areas, mostly lacking in urban quality. The main motivation for their creation is the hypothesis that this enlargement increases competitiveness. But this is for whose benefit? Is it really convenient for citizens to be part of a vast and barely liveable territory? It is time to ask whether the evolution of the modern city, with its focus on large urban areas, metropolitan areas, is effective: whether the well-being of local residents and communities is growing or not. A “*sui generis*” metropolitan area such as Reggio Calabria could be an example of a “different” response that is really useful to citizens rather than the globalized economy without

²⁰Erba (1988) highlighted the essential role of political choices in addressing territorial transformations.

²¹The *Carrara Thermal Baths* International Competition shows that the opinion, even with regard to these activities, is radically changing (reTH!NKING ARCHITECTURE COMPETITIONS 2016).

control, so it could be an example of the “smart globalization” required by Rodrik in 2011.

... and when it is raining this can be thought of as good weather: this is a basic change of perspective for progressing towards an ecological vision of territorial and town planning.

References

- ANCAb—Legacoop. (2008a). *Verso un Codice Concordato per lo sviluppo sostenibile*.
- ANCAb—Legacoop. (2008b). *National competition of ideas abitarECOstruire*. Accessed at: www.abitarecostruire.it [05/07/2010].
- Appold, S. J., & Kasarda, J. D. (1990). Concetti fondamentali per la reinterpretazione dei modelli e dei processi urbani. In A. Gasparini & P. Guidicini (Eds.), *Innovazione tecnologica e nuovo ordine urbano*. Milano: Franco Angeli.
- Aragona, S. (1993). *La città virtuale: Trasformazioni urbane e nuove tecnologie della informazione*. Roma, Reggio Calabria: Gangemi Editore.
- Aragona, S. (2000). *Ambiente urbano e innovazione. La città globale tra identità locale e sostenibilità*, Roma, Reggio Calabria: Gangemi Editore.
- Aragona, S. (2012). *Costruire un senso del territorio Spunti, riflessioni, indicazioni di pianificazione e progettazione*. Roma, Reggio Calabria: Gangemi Editore (chp. 1).
- Aragona, S. (2015a). Ecological city between future and memory: A great opportunity to rethink the world. In M. Cerasoli (Ed.), *Cities, memory, people. Book of acts of the 9th congress “Virtual City and Territory”*. Sessione I Architettura, Sostenibilità, Energia. Italy: RomaTrePress.
- Aragona, S. (2015b). Reggio Calabria: metropoli in rete di innovazione, storia e territori. In C. Fallanca (Ed.), *100IDEEpeReggiCalabriaCittàMetropolitana*. Roma: ARACNE.
- Aragona, S., Calabrò, F., & Della Spina, L. (2014). The evaluation culture to build a network of competitive cities in the Mediterranean. In *New metropolitan perspectives—The integrated approach of urban sustainable development* (Vol. 11, pp. 476–482). Reggio Calabria: Trans Tech Publications.
- Barca, F. (2010). *UN'AGENDA PER LA RIFORMA DELLA POLITICA DI COESIONE. Una politica di sviluppo rivolta ai luoghi per rispondere alle sfide e alle aspettative dell'Unione Europea*. capp. I e V del Rapporto “An Agenda for a Reformed Cohesion Policy”, 2009.
- Biovongi e Dintorni. *Le Reali Ferriere ed Officine di Mongiana*. Accessed at: <http://bivongitheristis.altervista.org/it/vie-della-fede-e-del-ferro/le-vie-del-ferro/le-reali-ferriere-ed-officine-di-mongiana/> [05/03/2017].
- Cacciari, M. (1991). Aut civitas, aut polis. In E. Mucci & P. Rizzoli (Eds.), *L'immaginario tecnologico metropolitano*. Milano: Franco Angeli.
- Campanella, T. (1602, 1623). *La città del sole*, IX Edizione (G. Ernst & L. Salvetti Firpo, Curatori). Bari: Laterza, 2006.
- Cananzi, D. (2016). “Intervento” alla *Tavola rotonda REGGIO 1946-REGGIO 2016. Dalla ricostruzione della città di 70 anni fa alla costruzione della città Metropolitana. Un percorso comune di riflessione tra ricordi del dopoguerra e la prospettiva del futuro*. Officine Miramare, Reggio Calabria, Centro Internazionale Scrittori della Calabria, 12 febbraio.
- Cittalia. Fondazione ANCI Ricerche. (2013). *Rapporto Citalia 2013. Le città Metropolitane*. Roma: Digitalia Lab srl.
- Del Nord, R. (1991). Presentazione. In E. Mucci & P. Rizzoli (Eds.), *L'immaginario tecnologico metropolitano*. Milano: Franco Angeli.
- Dematteis, G. (1990). Modelli Urbani a Rete: Considerazioni Preliminari. In F. Curti & L. Diappi (Eds.), *Gerarchie e Reti di Città': Tendenze e Politiche*. Milano: Franco Angeli.

- Doxiadis, C. (1968). *Ekistics: An introduction to the science of human settlements*. New York: Oxford University Press.
- Encyclical Letter. (2015). *Laudato Be of the Holy Father Francis on the care of the common house*. Tipografia Vaticana: Città del Vaticano.
- Erba, V. (1988). L'Efficacia dello strumento 'piano regolatore' letta attraverso la produzione di modelli e di generazioni di piano. In M. C. Gibelli & I. Magnani (Eds.), *Pianificazione Urbanistica come Strumento di Politica Economica*. Coll. Scienze Regionali. Milano: Franco Angeli.
- Fiorista, A. (2005). MC. Escher e le visioni mediterranee. *Workshop Nazionale di Progettazione Idee e progetti per il recupero e la riqualificazione in aree minori e non nell'epoca della globalizzazione*. Aragona Scientific manager, Tropea, marzo 30–aprile 3, 2005. Accessed at: https://www.youtube.com/watch?v=_TzGmFMiYPM&feature=youtu.be [09/12/2005].
- Florida, R. (2003). *L'ascesa della nuova classe creativa. Stile di vita, valori e professioni*. Milano: Mondadori.
- Gennari, G. (1995). *Semiologia della città*. Padova: Marsilio.
- ISTAT—CNEL. (2013). *Bes 2013. Il Benessere Equo e Sostenibile in Italia*. Roma: Tipolitografia CSR.
- Khun, T. S. (1962, 1970). *The structure of scientific revolutions*. Chicago: Chicago University Press [tr. it della II ed., (1979) *La struttura delle rivoluzioni scientifiche*. Torino: Einaudi].
- Malacrino, C. G., & Quattrocchi, E. A. (2015). *Old Calabria. Viaggiatori in Italia meridionale e Sicilia tra il XIX secolo e gli inizi del secolo XX*. Reggio Calabria. December 3–4.
- Malara, M. Russo: *Tra un mese pronto il Piano dei Trasporti. Lavoriamo per l'Alta Velocità*. Accessed at: <http://www.strill.it/citta/2016/01/tra-un-mese-presentiamo-il-piano-dei-trasporti-lalta-velocita-puo-arrivare-in-calabria/> [19/12/2016].
- Manfredi, T., Laboratorio CROSS Storia dell'Architettura e Restauro – Dip. PAU Università Mediterranea Reggio Calabria. (2015). *Che bel Paese. Esplorazioni nell'Italia del sud sulle tracce della spedizione Saint-Non*. Reggio Calabria. April 15–16.
- Meadows D. H. (1972). *I limiti dello sviluppo*. Club di Roma. Milano: Mondadori [Meadows, D. L., et al. (1972). *The Limits to Growth*. New York: Universe Books].
- Nanni, E. (2016). “Il caso di Faenza”, II Sessione Plenaria Le città nel cambiamento, buone pratiche ed esperienze in corso. *XIX Conferenza Nazionale della Società italiana degli urbanisti, Cambiamenti. Responsabilità e strumenti per l'urbanistica al servizio del Paese*, Catania, June 16–18.
- reTH!NKING ARCHITECTURE COMPETITIONS. (2016). *Carrara thermal baths competition*. Accessed at: <http://rethinkingcompetitions.com/project/carrara-thermal-baths> [25/06/2016].
- Rodrik, D. (2011). *La globalizzazione intelligente*. Bari: Laterza [or. ed. *The globalization paradox. Democracy and the future of the world economy*. Oxford University Press, WW. Norton & Company].
- Scandurra, E. (1995). *L'ambiente dell'uomo. Verso il progetto della città sostenibile*. Milano: Etas Libri.
- Settis, S. (2014). *L'etica del architetto e il restauro del paesaggio*. Lectio Magistralis for the award of Honorary Degree in Architecture. Reggio Calabria: University Mediterranea of Reggio Calabria.
- Telesio, B. (1565, 1570, 1586). *De rerum natura iuxta propria principia*, libri IX (rist. anast.) (G. Giglioni, curator). Roma: Carocci editore, Collana Telesiana (2013).
- Tinagli, I. (2006). *Creatività ed Innovazione: Le nuove sfide del sistema economico globale*. Convegno APQ_Firenze. May, 13. Accessed at: http://www.online.cisl.it/qattualita/I04724173.6/Convegno%20APQ_Firenze%202006.doc [05/06/2017].
- Tocco, S. (2009). *Sciare a Gambarie nel Comune di Santo Stefano in Aspromonte*. Accessed at: <https://www.villaggiotramonto.it/gambarie-di-santo-stefano-daspromonte.html> [05/08/2017].
- Turani, G. (2005). *Italia, il paese dei creativi poco istruiti*. Affari e Finanza, 4 luglio.
- UE Regional Operative Plan (POR) Calabria, Structural Funds, Axis City, Measures 5.1, Action 5.1.c - Networks of small municipalities, 1999–2006.
- 3bmeteo.com: *La Certosa dei Santi Stefano e Bruno*. Accessed at <https://www.3bmeteo.com/> [09/06/2017].