

Beauty as a factor of economic and social development

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Abstract

Purpose

The aim of this paper is to discuss how aesthetic features can be the basis for a virtuous chain that leads to social and economic development.

Design/methodology/approach

The aesthetic characteristics of a destination are an important attractive feature. More than that, they can be considered a key determinant for economic and social growth. We present here a conceptual support to this idea by following a line which links beauty to creativity, innovation and socio-economic development.

Findings

A qualitative and logical-deductive line shows how beauty, creativity, innovation are connected in a chain that leads to socio-economic well-being.

Research limitations/implications

The paper is conceptual in nature. The authors intend to use these considerations as a basis for future research.

Originality/value

The paper contributes to the literature on destination governance highlighting a number of factors that are often underestimated.

Keywords:

innovation, creativity, beauty, economic and social growth, work well done

Introduction

The aesthetic qualities of a place are, as widely recognised, a good determinant in attracting tourists. As Urry states in his renowned book (Urry, 1990), tourism consumption is heavily image oriented, and tourists look forward pleasant views, either natural or “artificial”

landscapes. Whether natural, environmental, or built, recently or in a more or less distant past, the resources a destination has, if deemed sufficiently 'beautiful', are exploited for promotional purposes and may become an important competitive advantage, mainly because they contribute much to the overall experience of a visitor (Kirillova et al, 2014).

Beauty, therefore, is an essential element for a tourism destination, and a good reflection on its role is important. Up to now aesthetic characteristics have been seen almost just as one of the factors of attraction, and several studies have focused on the role played in determining choices and satisfactions of tourists (see e.g. Seddighi and Theocharous, 2002).

However, a deeper consideration of this element is still missing, even if some recognition exists of the fact that aesthetic value is one of the main factors contributing to the tourism potential of a site (Yan et al., 2017). As Breiby states (2014: 163):

“Given the historical relationship between viewing or ‘gazing’ and tourism, it is rather incongruous that the concept of aesthetics has received little attention in tourism marketing. A platform of knowledge about the concept of aesthetics in terms of tourism marketing may be important for finding out ways to influence the tourist’s overall satisfaction and thereby affect, for example, the intention to revisit or recommend the destination.”

Yet, when considering a destination not only as a place where travellers go, but as a complex ecosystem, whose important components are more than just the core 'touristic' elements (Baggio et al., 2010; Framke, 2002; Hjalager, 2000), beauty can be considered from a different point of view, it can become the engine for the social and economic development of an area.

Main objective of this paper is to show, although at a first conceptual stage, how this relationship can develop and how the aesthetic characteristics of a region (a destination in our case) may impact its overall 'health'. After having briefly characterised the basic elements: beauty, creativity and innovation, we explore a path containing the existing links between beauty, creativity and innovation; repeatedly believed to be the main determinants of development, especially in a globalised and highly technological and competitive World (see e.g. OECD, 2012, Hjalager, 2010, Richards, 2011). The paper closes with some considerations on the effects these connections can have in governing a destination and the future research needs.

The basic elements: beauty, creativity, innovation

Beauty is, with little doubt, a concept of great importance for human beings in all fields, even those that might seem too *cold* and *rational* to those who do not know them fully. So that, almost surprisingly, we find statements such as the one of the cosmologist Janna Levin (Lethem and Levin, 2007):

Something I find particularly interesting is that science, I think, is the last realm in which people talk to each other seriously, with a straight face, about beauty. Visual artists would never say that’s a beautiful piece of work, not in really

contemporary, cutting-edge art. [...] And it's considered kind of provincial to aim for something beautiful. We're not doing pretty pictures here; we're doing something else. But in science, we really hold on to beauty and elegance as the goal because, for reasons that I think nobody fully understands, it's a good criterion for distinguishing what's right from what's wrong. And if something is beautiful and elegant, it's probably right.

The examples of this view of beauty in science are quite numerous. In 1905 Albert Einstein began a revolution in physics, that was to lead to a completely different view of the world from that which had ruled for more than two centuries (from the publication of Newton's *Principia*). Its starting point is not the scrutiny of some experimental data, but the realisation of the lack of symmetry of Maxwell's equations of electromagnetism. A strong call for simplicity and harmony in a set of mathematical relationships.

A hymn to beauty is also the start of another revolutionary work: *De revolutionibus Orbium Caelestium* by Nicolaus Copernicus. It starts developing his *proposal* just from considerations of simplicity, symmetry and harmony, as stated at the very beginning:

Among the many various literary and artistic pursuits which invigorate men's minds, the strongest affection and utmost zeal should, I think, promote the studies concerned with the most beautiful objects, most deserving to be known.

The relationship between beauty and scientific thought, however, is even richer and deeper, and comes from the observation of nature as a place of aesthetic experience. We mostly realise that beauty meets some criteria of symmetry and harmony, and that these can be described and represented in mathematical terms. This idea is so profoundly rooted in many scientists' minds, that one can go as far as to say, as Paul Dirac (1963: 47):

... it is more important to have beauty in one's equations than to have them fit experiment. [...] It seems that if one is working from the point of view of getting beauty in one's equations, and if one has really a sound insight, one is on a sure line of progress. If there is not complete agreement between the results of one's work and experiment, one should not allow oneself to be too discouraged, because the discrepancy may well be due to minor features that are not properly taken into account and that will get cleared up with further development of the theory.

Probably the most famous example of this close relationship between mathematical properties and beauty is the *golden ratio* ϕ (1.61803...: two quantities are in golden ratio if their ratio is the same as the ratio of their sum to the larger of the two quantities). For centuries this quantity has attracted mathematicians, artists, musicians, historians, architects, psychologists that have discussed its appeal. No real conclusive statements can be drawn, but it is commonly reputed that a rectangle whose side lengths are in the golden ratio is the most attractive to the view.

Debates apart, ϕ has been and is considered the proportion that underlies pleasant views in nature and artificial artefacts, mainly in arts and architecture. Notable, and well known,

examples are the Giza pyramids, the Parthenon in Athens, Notre Dame cathedral in Paris, or the Taj Mahal in India, or many works of modern architects such as Le Corbusier or Mario Botta (Livio, 2002).

The number has been called the *divine proportion* by Luca Pacioli (1447–1517), Franciscan friar, mathematician, father of accounting and book-keeping, in his book *De Divina Proportione* (published in Venice in 1509), in which he sets the bases (as we would say today) for building pleasant and harmonic compositions in arts and architecture. And the ratio can be found in many masterpieces from Leonardo da Vinci works (Gioconda, Last Supper, Vitruvian Man) to Salvador Dalí or Mondrian (Livio, 2002).

Throughout the history of science, simplicity and elegance, the fundamental attributes of the concept of beauty, have a propelling crucial function. These concepts are closely related to the explanation of a phenomenon and the manner with which this explanation is formulated. The principle of parsimony, known as Occam's razor, according to which it is at least useless, if not harmful, to formulate more hypotheses than what is strictly necessary, may be taken as the theoretical basis for much modern scientific development.

On the other hand, in a world often thought (incorrectly) as alternative to scientific knowledge, the world of arts with their many manifestations, the concept of beauty has a central role. In fact, despite the many definitions or attempts to define art, in any of its forms, its essence is in the (emotional) activity of creation and appreciation of beauty. So that, discussing some contemporary refusal of the concept, the critic Roger Kimball strongly makes the point (1997: 59): "*This much, I think, is clear: without an allegiance to beauty, art degenerates into a caricature of itself; it is beauty that animates aesthetic experience, making it so seductive.*"

As claimed by Morelli, in his *Mind and Beauty* (Morelli, 2010), the analysis of the different forms of aesthetic experience highlights the close connection, mediated by the principle of imagination, between the human being, and the world around him and its structure. And, as we know, the system of relations, real or virtual, between individuals and between individuals and the environment in which they live, plays a key role in any human action.

There seems to be a physiological reason for this appreciation of beauty. Recent studies on human brain performed with functional magnetic resonance imaging (fMRI), which allows to highlight areas of the brain activated in the presence of stimuli or during specific activities, show how important is the function played by mirror neurons. These are elements that many researchers deem able to allow us to grasp on the fly what is happening around, to empathise with the emotions of others, and, above all, to learn by imitation (Cook et al., 2014). For some scholars, mirror neurons may even be the building blocks upon which the culture of a human being is founded, because the dissemination of knowledge would occur principally by imitation (Ramachandran, 2000). In any case, these studies show a substantial equivalence, when aesthetic appreciation or creative impulse are concerned, in both the scientific and the artistic world (Andreasen, 2012; Zeki et al., 2014).

In essence a human being (actually the brain) participates in the experience of beauty as if embedded in an open system that co-evolves with the dynamic environment in which it is

immersed, and visual and auditory stimuli are the makers of aesthetic experience (Gallese and Di Dio, 2012). Recent research in *neuroaesthetics* (Gallese and Di Dio, 2012), posits that this would happen by activating several groups of neurons that produce pleasing sensations, and, more importantly, create new connections between different areas of the brain, the reticular connections that form the basis of many creative processes (Vartanian et al., 2013).

One further consideration is in order before going on. Beauty is often seen as a subjective feature (“*it is in the eyes of the beholder*”) and the debate on whether instead it is an objective feature is as long as the history of human thought. Here we adopt the view that, even if matter of personal interpretation, beauty has an irreducibly social dimension. It is a view we share, or we want to share, and shared experiences of beauty are exceptionally intense forms of communication. In this interpretation, the beauty experience is not only confined to the mind of an individual, but connects people and objects in communities of appreciation, even small, but strongly cohesive in their views (Sartwell, 2014).

Creativity and innovation

Creativity and innovation are, today, a widespread mantra when it comes to economic and social development. These features are identified as essential to ensure success, growth, improvement of material and spiritual life, happiness and well-being of individuals, companies, organisations and social systems (Anderson et al., 2014; Leckey, 2011; Piergiovanni et al., 2012). They are increasingly seen as critical to the design of the elements that can make the difference between a successful product and the serial reproduction of overcrowded offers (Richards, 2011).

Although not very well defined, creativity seems to have, as essential foundation, the ability to combine and recombine ideas or visions of reality. “*Good artists copy, great artists steal*”, Picasso is known to have stated, and in many academic fields is popular the adage: “*copying one is plagiarism, copying many is research*”. All statements of the fact that having a good amount of creativity means being able to seize, consciously or unconsciously, an array of different stimuli and to frame them into a solution for a problem or the design of a new object. This idea leads on to consider another phenomenon often closely related to creativity, and more or less based on the same elements: *serendipity* (Moretti, 2015b).

Genius, chance and context

There is a strong connection between the drive for creativity and innovation that characterises the current phase of development, and the concept of serendipity, defined by Robert K. Merton (Merton and Barber, 2006: 196) as “*the fairly common experience of observing an unanticipated, anomalous and strategic datum which becomes the occasion for developing a new theory or for extending an existing theory.*” According to Merton (2006: 234), there is a “*sociological importance of the unintended consequences of intended actions in social life generally and of unanticipated phases in the growth of knowledge*” and, as pointed out on several occasions, chance particularly favours the prepared mind operating in

microenvironments that facilitate socio-cognitive interactions, and that can be described as a socio-cognitive serendipitous environments.

Given this background, one might wonder whether it is possible to imagine a different perspective, organisational rather than individual, that links the possibility of making discoveries by genius and chance. This perspective should take into account the capacity of organisations to establish rich socio-cognitive environments able to encourage the ability of individual prepared minds to grasp unexpected or anomalous circumstances (see e.g. Cunha et al., 2010). This can be the basis for a better understanding of how and to what extent it is possible to promote further developments in defining the concept of serendipity and its uses for scientific knowledge advancement.

In our view, pondering this perspective means taking seriously into account, before all, the sociological character of serendipity and its relationship with the contexts, the organisational structures and the processes that encourage and determine progress.

The idea is that recognising the limits of a psychological perspective or agreeing on the need to integrate it with the sociological one is not enough. We must reverse the approach and place the emphasis first on the resources made available to the network and on the active relationships between the different institutions (universities, research groups, innovators, etc.) and then on the preparation and the creativity of the individuals. Of course, even a sociological perspective, as well as the psychological one, cannot be sufficient, by itself, to account for the nature and processes of serendipity, but the thesis proposed here on the boundaries (and limitations) of the psychological perspective is inside the boundaries (and limits) of sociology and the two '*do not match.*'

Geography, even before the history of scientific discoveries, can help clarifying the matter. Two examples: the first one is the Cavendish Laboratory in Cambridge, who has been home, for a considerable period of time, to 29 Nobel Prize winners; the second one is the California Institute of Technology (more commonly known as Caltech) in Pasadena, California, in which as many as 32 Nobel Prize winners have worked (the single laboratory of Renato Dulbecco hosted four: Dulbecco and Howard M. Temin in 1975, Susumu Tonegawa in 1987, Leland H. Hartwell in 2001).

Creative processes as a social processes

A consistent line of thought has begun to recognise the fact that a creative process is, at least partially, a social process. There is the idea that a group is more creative than isolated individuals, because their members bring different contributions, and their interactions favour creations more and better (John-Steiner, 2000; Paulus and Nijstad, 2003). For this reason, some argue that, especially in a working milieu, environmental factors such as the support of a supervisor or influences resulting from an interaction are crucial for creativity (Amabile, 1988). This is emphasised several times in a decisive manner by Isaacson in *The Innovators* (Isaacson, 2014) that traces the history of the development of information and communication technologies which, notoriously, were, and still are, examples of high creativity and innovation.

Innovation and creativity are based on what sociologists have called human capital: that set of knowledge, skills, abilities, emotions, acquired by an individual, and aimed at the attainment of individual or collective social and economic objectives (Coleman, 1988; Subramaniam and Youndt, 2005). Now, if these phenomena are social processes, they can be fully understood only by adding to the individual characteristics the consideration of the environmental conditions and the effects of the connections existing between the different individuals. This role is now well recognised, and Bourdieu (Bourdieu, 1986) extends the concept by defining social capital as (p. 249): *"the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition – or in other words, to membership in a group."*

Speaking of connections and social ties means adopting a systemic vision and considering the network that connects the different elements (people, groups, circles). This raises a discussion on which is the ideal network configuration for encouraging the emergence of creative ideas. Many contrasting proposals have been made, but a convergence seems to come forward on the idea that the best solution is that of a network consisting of a series of cohesive communities, which then facilitate intense exchanges, that have connections, even very weak, between them, which would help the dissemination new ways of thinking, thus avoiding the risk of excessive closure of a connected , but isolated, community which would remain stuck on what flows inside (Baggio, 2014a; Fleming and Marx, 2006). In such a configuration, then, the availability of highly standardised infrastructures and technologies increases the possibility of recombining different elements and simplifies the exchange of information and knowledge (Baggio, 2014b).

Linking beauty, creativity, innovation and development

If creativity, necessary basis for innovation, is largely linked to the individual's ability to connect different elements, then we have to think that the elements that most affect the human mind are privileged in this process. Among these factors, the aesthetic experience certainly has a significant influence. This happens not only when individual elements (objects, ideas etc.) are at play, but also, quite obviously, when beauty and aesthetic pleasantness characterise the environment surrounding an individual.

A beautiful setting, being it natural or artificial (meaning 'man-made'), seems to encourage creative development and innovation, as many state, especially in the field of architecture and city planning. This is the argument put forward for example by Kaisa Holloway Cripps (2013) examining the environment, but it also appears valid within individual workplaces (Van Marrewijk, 2009).

Empirical evidence that aesthetically pleasing visual stimuli increase the capacity of creative problem solving is quite solid. Two factors are involved in this process: the structure of the brain that controls memory processes, and the individual knowledge and skills (Goldschmidt, 2015). As Richard Florida argues in his book *The Rise of the Creative Class* (Florida, 2002), the basis of a favourable environment for creativity, and for fostering innovation, can be

traced back to three elements: individual talent (education, skills, experience), a tolerant and multicultural environment, and the necessary technological infrastructures.

Godoe (2012) broadens this view redefining the utility (economic) which is the basis of many models on the dynamics of innovation, highlighting as key elements: aesthetic factors, serendipity and imagination, and, of course, creativity. In the author's view the role of aesthetic factors defined as "*the appeal and attraction associated with beauty*" (p. 378), is predominant. According to Godoe (2012: 387): "*The innovation problem is to find an admissible set of values (e.g., aesthetic factors and codes) of the command variable, compatible with constraints, which maximize the beauty [instead of Simon's 'utility function'] for the given variables of the environmental variables.*"

Many studies have also stated the importance of a creative attitude for the tourism domain. A creative attitude, and the promotion of creativity through good and cooperative transfers of knowledge, are worthy instruments available to destinations and companies for innovating their offers and positioning them better in the global competitive scenario (Czernek, 2017; Richards and Wilson, 2007, Richards, 2011; Zach and Hill, 2017)

Innovation and socio-economic development

The relationship between innovation and economic and social development is well known and studied, it is only worth to mention here just a few essentials. An OECD report (OECD, 2012) describes carefully the fact that the last decades have shown that innovation plays a central role in the economic development of many countries, even considering different forms and different approaches in the various stages of evolution. Research on the subject is rich and many studies have good empirical evidence. The conclusions seem unanimous in holding the important contribution of innovation, and its quality and quantity, to economic growth. Moreover, this close relationship is confirmed not only globally (at country or sectors level), but also at the level of individual organisations or companies, and is usually geographically bound (Hasan and Tucci, 2010).

Innovation is crucial not only for an economic development, but also plays an important role for the social system involved. This aspect is not always clearly shown, especially by economists, but is of enormous significance (MacCallum et al., 2009). The central idea is that social innovation is about meeting not only material needs but also social relationships and a good management system must adjust the allocation of goods and services so as to satisfy both. This passes through a review of the forms and the structures of governance that should pay careful attention also to factors other than those usually considered. For example they should consider issues such as the creative and artistic milieu, the creation of social capital, the link with the territory. The opportunities offered by this approach seem very interesting especially because they look better development options, as an alternative to the current neoliberal economic vision, and emphasise socially important factors such as cooperation, cultural activities, solidarity and diversity.

It is probably redundant here to emphasise again the importance innovation has in the tourism domain. As many studies and practical experiences show, a creative and innovative

environment encourages a healthy and balanced growth of the tourism activities in a destination. And within a destination the most 'successful' organisations are those able to continuously propose new products and services that improve the positive experience of tourists and visitors (Hjalager, 2010, 2015, Rodríguez et al., 2014, Souto, 2015, Martínez-Román et al., 2015).

Beauty and work well done

A further consideration is in order here. It concerns a matter which, unfortunately, has been disregarded by too many parties for too a long time: the importance of *doing things well because that's how they should be done*. The idea is that without a profound cultural change in the approach to work, at every level, it is not possible to capture, and then multiply, the opportunities for development offered by the modern society. We definitely need to give more value to work, respecting the work and those who work. Connecting own work to dignity, identity, sense of people, structures and organisational systems is more essential than ever, if we want to prevent the shadow of a flat future (Martinelli et al., 2009).

Libero, one of the protagonists of *Head, Heart and Hands* (Moretti, 2013), would say that perhaps we "*forget the effort it takes to make bread, to pull up a bridge, to pick tomatoes, to build a car. By keeping watching television some people think that we live in the world of Copperfield the magician, voila! and things appear as if from nowhere. But behind everything there are the ability, the commitment, the hard work of those who make it.*"

In the era of Internet and the knowledge society, the key for a change is more than ever right here, in the realisation that any work makes sense and has a meaning if it is done properly (Weick, 1995); in other words: "*what is 'almost' good doesn't fit.*"

There is also an etymological connection between the idea of beauty and that of doing things well, given by the Latin *bellus*, beautiful, which is short for an ancient form of *bonus*: good, well. Beauty may be an opportunity (in the sense of the right time, *kairos*) to lengthen the shadow of the future on the present, to seize chances and multiply them. It can provide a different supporting structure, and put in place a new system of mutual relations, words, ideas, concepts, decisions, and actions aimed at future developments.

Work should be associated with the concept of 'respect'. A job well done should be seen as self-realisation, both at individual and at system, organisation and country levels. Under the same conditions, whatever they are, those who have chosen to do properly what they have to do are more relaxed, more satisfied, more able to design successful strategies and to adopt virtuous behaviours (individually and collectively). They progress their working conditions, and thus contribute positively to the social and economic environment in which they live. We like to think about the connections between 'doing things well' and 'doing good things' as the symptoms of a possibility to pay back culture, innovation, and future to the world. In essence, our argument is betting on the connections between doing things well and doing good things so that smart cities, resilient cities, digital cities, can have smart features and unmatched capabilities (Moretti, 2013, 2015a).

The message is: let us rethink cities, regions, districts, be they industrial, social or cultural and let us reorganise, rebuild, re-evaluate them in the light of the opportunities offered by the modern advanced technologies: the Internet of Things, the Internet of People, the Internet of Knowledge. We should start working concretely, enhancing and enriching the historical, cultural, environmental, natural, and productive environment. And we can do this by doing things well, making beautiful things, as has been done for centuries, in every corner of the world. In a world increasingly 'doomed' to find a distinctive, competitive advantage, the quid that a country, an institution, a company have as exclusive trait (or in excess with respect to all others), together with the improvement of territories and the emphasis on their beauty, can be the key to return to grow in a balanced way (sustainable some would say), both from an economic and a social point of view (Moretti, 2015a).

The link between job satisfaction and good outcomes (industrial, economic, financial) has been known for a long time, mainly for the intrinsic motivations gained (Morse and Weiss, 1955; Chiang et al., 2013; Esteve et al., 2017). This satisfaction, in an 'industry' so deeply dependant on human work is one of the major determinants of the performance and the success of many tourism companies (Hwang and Der-Jang, 2005). Many examples exist that support this connection, as can be inferred, for example, by the more than 200 stories collected by Vincenzo Moretti on Italian cases (in Italian, online at: <http://www.lavorobenfatto.org/racconti/>), many of which concern tourism or tourism related activities.

Hinged around the territory, the industrial revolution started with the advent of the Internet of Things (industrial internet, industry 4.0), and the Internet of Energy (reorganisation of efficient buildings, reorganisation of the public transport system, priority use of public goods, environmental protection, production and waste disposal), knits increasingly close relationships between the two ecosystems, digital and physical. This ensemble can have, in many countries, an enormous potential for development, starting from the ability to attract capitals (monetary and human). The whole concept of *smart tourism destinations* is based on these ideas (Buhalis and Amaranggana, 2014; Gretzel et al., 2015).

The territory (city, district, region) becomes the socio-economic context (scope, background) open and interconnected, able to give uniqueness, value, and competitive advantage to the way to work, fostering innovation, business creation, development (agriculture, industry, tourism, etc.), and liberating our enterprise culture from the constraints of family transmission. It can enhance and multiply its resources, with the objective to increase employment in both the 'traditional' and the more 'innovative' sectors in which new businesses are created (commonly said to be the main source of new jobs). The idea of triggering a new phase from companies and innovative start-ups can help make more explicit the link between job creation and business creation, can help to release the innovative traits of the same companies or start-ups from the (restricted) business sector in which they operate, and connect them with more significant elements such as skilled workforce, certified incubators, universities and research institutions. This would certainly improve the quality and quantity of transactions with medium and large enterprises and with industrial and financial investors.

Governing a beautiful destination

In the present highly dynamic and competitive scenario any destination governance body has the difficult task of mediating between the need to increasingly nurture the attractiveness and catch the attention of visitors, and the necessity to preserve the basic characteristics of the places where locals live. And do so balancing also the short and long term views about destination development (Volgger et al., 2017).

An increased attention to the aesthetic features of the destination has a double role. First of all it is, as much recent research shows, one of the main factors that drives the decision of visiting a place and that can influence the experiential satisfaction thus affecting intentions to revisit or to recommend a destination (Prayag et al., 2013, Liu et al., 2017, Seddighi and Theocharous, 2002). In this respect, although already present in many marketing activities, a further emphasis on the beauty of a destination (and of its natural and artificial resources) can prove quite effective.

As already stated, a modern view of a destination is that of a complex adaptive system in which all the components, external and internal, should play a balanced role, and in which all (not only the traditional core tourism operators) have a role in ensuring a satisfactory experience to tourists and visitors (Pearce, 2014, Sainaghi and Baggio, 2017, Baggio et al., 2010, Saraniemi and Kylänen, 2011).

As known, and already highlighted in the introduction, the creativity and innovation characteristics of the local people and companies can influence the social and economic development. Additionally, the considerations discussed in this work suggest to put 'beauty' at the core of the efforts to cultivate these traits (Richards, 2011, Hjalager, 2010, Hasan and Tucci, 2010, Akçomak and Ter Weel, 2009).

This, following the conceptual framework developed here can be of help in providing a favourable and effective environment for encouraging creative and innovative practices, helping governance systems to better achieve their goals.

We have a dream

Bay of Naples, the year of grace 2065.

Fifty years after the establishment of the metropolitan area, the old Naples appears literally transformed by the advent of the Internet of things and the smart reconfiguration of the relationship between humans and generated by the dramatic development of digital technologies. The dream of experiencing a model centred on beauty as a multiplier of opportunities, as creator of sense, wealth and development (cultural, social and economic), as development of the immense human, cultural and social capitals available, and as promotion of good and active citizenship, has been superseded by reality.

The city of Bacoli, used by Baggio and Moretti half a century ago as an example of a waste of beauty (Cuma: the Acropolis and the archaeological park; Baia Aragonese Castle, the underwater remains of the Roman Baths and Villa; the Sacellum in Miseno; Agrippina's

Tomb, Centum Cellae and Mirabile pool in Bacoli, all in the same municipality and within a few kilometres) is today unequalled in the world, at the first place in the international ranking of high quality cultural sustainable tourism destinations.

In a few months the entire Bay of Naples (from Sorrento to Monte di Procida, passing through the many agricultural areas, the three active volcanoes, and the islands of Capri, Ischia and Procida) will be proposed to the World as a good practice to be studied and used in order to activate the necessary isomorphism processes. A few years more and the objective of ensuring beauty and prosperity to all the people of our beloved Earth will be realised.

Concluding remarks and future work

This is for now only a dream, but the equation: *beauty - job well done - creativity - innovation - development* seems to hold, at least according to the qualitative reasoning and logical-deductive line followed so far. Actually, more than of an equation we should speak of a system of equations and, what is more, of a system with an unspecified number of equations. In fact, there are numerous factors that should be considered and that can contribute to the solution. As noted, whatever the territory we consider, we should add to the equation the basic parameters involving the efficiency of physical infrastructure (communications, economic and financial), the structure of social relations, and, as well highlighted by some research (Baggio, 2014a, 2014b), we should also add an effective governance system, crucial for ensuring a good and balanced life to a tourism destination (Ruhanen et al. 2010)

The obvious limitations of our line of reasoning are in the pure *speculative* nature of the considerations presented. Although grounded in many research efforts of many scholars from many different disciplines, we think logical path between beauty and development is reasonably demonstrated. Once accepted its validity (at least as a working hypothesis), it can be used as the basis for further research, needed to verify and validate these connections in order to produce actionable models and actions.

On one side traditional techniques can be used, analysing different cases and tracing the possible consequences in terms of social and economic outcomes (as, for example, shown in OECD, 2012, Lee et al., 2010, Hasan and Tucci, 2010, Akçomak and Ter Weel, 2009).

On the other hand some new or little explored methods (at least in the tourism domain) such as agent-based modelling can prove beneficial, mainly for governance and policy setting bodies. As already shown, these techniques can help in designing different scenarios and examining what the influence of the various factors can be (Amelung et al., 2016, Axelrod, 2006; Henrickson and McKelvey, 2002; Nicholls et al., 2017, Toroczka and Eubank, 2005).

To this regard a number of works have already established these effects, although mainly outside the tourism literature (see e.g. Malik et al., 2015, Baggio and Papyrakis, 2014). What is missing is an effort leading to some metrics (qualitative or quantitative) that can allow considering beauty (and in general the aesthetic factors) as foundation for the other factors.

A thorough (and necessary) assessment of relationships and impacts is not easy, primarily because the metrics to evaluate these factors and the relationships between them are virtually

non-existent. Help will come probably only by the use of simulation techniques that allow, as already happens in many fields, to build scenarios and analyse their consequences. Here the authors have started a research program which they hope will be able to give interesting outcomes in the near future. In the meantime we feel satisfied from having shown that the fundamental equation at the base of our research program holds well.

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