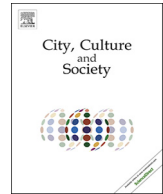




Contents lists available at ScienceDirect

## City, Culture and Society

journal homepage: [www.elsevier.com/locate/ccs](http://www.elsevier.com/locate/ccs)

# Vesuvius, pizza, coffee and...Innovation: Is a new paradigm possible for the creative “Vesuvius Valley”, Naples, Italy?

Stefano De Falco<sup>a,b,\*</sup><sup>a</sup> Chief of Technology Transfer Office, University of Naples “Federico II”, Via Paladino 25, 80138, Napoli, Italy<sup>b</sup> AICTT (Italian Association for Technology Transfer Culture Promotion)– President; IRGIT (Research Institute on Territorial Innovation Geography) - Chief, Italy

## ARTICLE INFO

## Keywords:

Naples  
Vesuvius  
Creative city  
Cultural city  
Innovation  
Knowledge

## ABSTRACT

To approach, in a scientific form, the issue of the analysis of the innovative character of the city of Naples, is a delicate and risky operation: positive and negative consolidated city representation paradigms represent a cumbersome burden which physiologically should be taken in charge.

Any approach to the “Naples” issue, from the landscape, historical, artistic, cultural, economic, social, up to sports, has a boundless and ever growing evolution upon previous literature.

In this article, there is neither presumption nor the aim of wanting one; in fact it provides an overview of the many different features of the Neapolitan territory that are as a result of an algorithm starting from assumptions, determined by the statement of the theorem that Naples is an innovative city.

The aim, in a particularly happy and creative time for Naples, (Apple and Deloit have settled in the east area of Naples, while Cisco might invest in the area as well; Dolce & Gabbana recently organized a global event), is to try to check the validity of the “Florida’s theorem” for this city, leaving, however, the reader the chance, the opportunity, and perhaps the pleasure, to judge the true and complete paradigm that governs the “Vesuvius Valley” and so answer this question:

Are the famous folk icons of the city of Naples, such as Vesuvius, pizza and coffee, urban factors that help to create and to facilitate the urban creativity and innovation, or hinder them, because they obscure the part of science and scientific culture of the city?

This aim will be reached, less as a scientific theorem and more as a proposal supported by objective elements to be “delivered” to the reader, through the following statement complex:

- I) it is true that in the Vesuvius valley people live in a creative climate;
- II) the creative climate of the Vesuvius valley is not generated “by necessity” caused by the absence of industries because Naples, in the past, was a Fordist city;
- III) Vesuvius valley is a post-Fordist urban area where a major effort is being made to enhance the knowledge economy and where Florida’s third T, or Technology, is very present within Universities, research centers and the most technological companies in the world (Apple’s settlement is an example).

## 1. Conceptual framework

Scientific literature offers many recent and less recent works on the topic of urban innovation (e.g. see Beretta, 2018; Dirks & Keeling, 2009; Vanolo, 2013; Shearmur, 2012) as well as offers many other works that scientifically deal with the theme of the relationship between city and folklore (e.g. see Cominelli & Greffe, 2012; del Barrio, Devesa, & Herrero, 2012; Currid-Halkett & Scott, 2013; Kim-Maloney et al. 2014; Cauchi-Santoro, 2016).

The original aim that this work seeks to achieve is to try to combine the two aspects proposing a general question regarding the study of

urban geography, that is if, when the cultural and folkloristic factors of a city are very relevant, they hinder other perspectives of evaluation of the city, for example the scientific perspective.

This question of general validity in this work is first stated in the specific case of the city of Naples, Italy, which, in this particular moment, represents a perfect laboratory to analyze the phenomenon that the question asked requires and then that used to induce a general reflection on this theme.

In fact, on the one hand, the recent establishment of the Apple Academy in the east area of Naples together with other multinationals such as Deloitte and perhaps General Electric and Cisco (recent news of

\* Chief of Technology Transfer Office, University of Naples “Federico II”, Via Paladino 25, 80138, Napoli, Italy.  
E-mail address: [sdefalco@unina.it](mailto:sdefalco@unina.it).

<https://doi.org/10.1016/j.ccs.2018.03.002>

Received 3 August 2017; Received in revised form 9 February 2018; Accepted 8 March 2018  
1877-9166/ © 2018 Elsevier Ltd. All rights reserved.

which is resonating in all the major newspapers of the world, as in the east area of Naples January 2018 there was a meeting between the Italian Premier Paolo Gentiloni, the CEO of CISCO, Chuck Robbins and the Rector of university Federico II of Naples on the occasion of the inauguration of new Cisco's settlement in the university campus area), and the high research activities of the five universities of the city, foreshadowing a profile of the city itself with a very marked scientific DNA. On the other hand, the city's folkloristic elements have always characterized it and have made it known in the world; Vesuvius, pizza, and coffee, which are assuming even greater value, as evidenced by the growing number of tourists in Naples and the recent inclusion of the art of pizza making in Unesco's list of "intangible heritage".

Particularly the aim of the paper is to explore whether common culture (Vesuvius, pizza, coffee) in the region of Naples supports or hinders proper scientific innovation and the development of the local innovation and creativity ecosystem according to the Richard Florida's 3T theory and its recent revision. The approach followed is based on the identification of the characteristics of the creative and innovative city, and then their gauging against the Naples area.

This aim would be reached as a proposal supported by objective elements to be "delivered" to the reader rather than a scientific theorem, through the following statement complex:

- I) it is true that in the Vesuvius valley people live in a creative climate;
- II) the creative climate of the Vesuvius valley is not generated "by necessity" caused by the absence of industries because Naples, in the past, was a Fordist city;
- III) Vesuvius valley is a post-Fordist urban area where a major effort is being made to enhance the knowledge economy and where the third T of Florida, Technology, is very present within Universities, research centers and the most technological companies in the world (Apple's and Cisco's settlements are significant examples).

The argument is structured as follows: in the next section the role of knowledge in the urban fabric is emphasized starting from the codified dimensions of the knowledge itself, and the difference between knowledge and information that underlies every innovative urban system has been highlighted. Then a scientifically controversial subject is considered, based on the city-attributes of the relationship/dispute between creativity and innovation, which according to some, most prominently by Richard Florida, coincide and according to others collide. After, the laboratory-city of Naples is analyzed in detail through a description of its well-known characteristic folk elements, through an excursus on its history as a Fordist city, ending with the focus on the east area of Naples that represents, also geographically, the emblem of the transition from an industrial city to a city of knowledge.

Finally conclusions assure the reader that the specific case is dealt with as a paradigm of general validity.

## 2. Knowledge and the city: a new urbanism

Knowledge is by its nature a complex and multi-parametric concept, that beginning in ancient Greece has fascinated the minds of philosophers and eminent scholars, who addressed this theme looking at knowledge from different points of view, thus producing multiple approaches that drive the focus on different aspects of development and knowledge management (De Falco & Germano, 2011).

The enhancement of knowledge, on the urban scale, not only translates into the ability of an area to be able to generate new ideas and new knowledge, but also requires the ability to spread this new knowledge through coded processes capable of generating innovative services for citizens in a city, and, more generally, for many people in a community.

An approach to the relationship between the city and knowledge can be supplied from the hierarchical view data-information-

knowledge, under which the shared knowledge within a city is the result of an elementary data encoding process generated by people present in the city itself. To understand how the city creates knowledge, it is necessary to clarify the difference between data, information and knowledge. Data are the set of distinct, objective, facts referring to a specific event, which, by themselves, have limited utility as they are confined to describing only a part of the event, without giving judgments or interpretations, or a sustainable basis for the action (Davenport, 1997). They are symbols (numbers, letters, codes, images), facts or events devoid of meaning and utility, such as demographics, income, and competitive as well as other statistics relating to the market. If the data are interpreted, contextualized and related to each other, the information or data with attributes of relevance and purpose are obtained (Drucker, 1993), because, unlike the data, they shall contain a meaning and are organized for a specific purpose. The information, therefore, is the interpretation of the data, in a reference context (contextualization), organized in relation with other data (synthesis). Knowledge, therefore, is an abstract concept, consciously or unconsciously constructed through the interpretation of a set of information acquired through experience and meditation on the same (Polanyi, 1962).

Knowledge is represented by a set of information, performed by individuals in a particular context: the interpretation of the information, new and existing, which changes from individual to individual, determines knowledge's development. It derives from a combination of experiences, values, contextual information and specialist expertise that provides a framework for the assessment and assimilation of new experience and new information (Davenport and Prusak, 1998). It is essential not to consider information and knowledge as two synonyms: information can become knowledge when citizens add value to it, transforming the "raw" data into benefits for the economy and local development. Confusing information with knowledge is like confusing the grape, a simple and abundant raw material, with wine, a wise fruit distillate deriving from human work. Unfortunately, this error is frequent, with a mass of simple information, such as messages, reports, procedures, and lists considered as knowledge. Knowledge, however, must be understood as the result of a synthesis process between information, which is derived from data, and the experience of citizens belonging to a certain community. This type of knowledge, therefore, has a dynamic nature since it has the effect of making data and information, characterized by a static nature, into a rather useful and productive one. We can observe a certain intersection of knowledge and information: the question arises whether it is possible to establish a demarcation line between the two concepts. Actually it is impossible to identify a policy or a rule, or to be able to distinguish knowledge from information; in fact we do not have theoretical foundations in literature. The difference between the two concepts, therefore, does not reside in the respective objects, but rather in their guiding principles. In fact, information management aims to reduce uncertainty and limit the choice of the members of a city or a community, defining the information necessary and sufficient to perform the tasks and functions optimally, while knowledge management aims towards innovation, i.e. the growth of new and existing knowledge in order to enhance creativity and learning abilities.

So, what is the new knowledge based urbanism in Naples?

Vesuvius is known around the world, both as a subject of geophysical research that fascinates international scientists, and as a characteristic landscape element, with its images and suggestions that travel all over the globe. Pompeii, likewise, is the attraction magnet for millions of tourists every year, as are all the many cultural sites that characterize the territory: the Veiled Christ, the Royal Palace, the Pharmacy of the Incurables and so on. No less bulky in importance and notoriety are the human prestigious figures in every field that add luster to this territory, from Eduardo and Totò in the theatrical field, to the philosophic field with Giambattista Vico, Benedetto Croce, and many others, to the scientific field with Renato Caccioppoli, and many other

excellences, and to the culinary field with the famous chef Don Alfonso in S. Agatha of the Two Gulfs.

The city of Naples plays a leading role in the Italian urban landscape, and as it is the third largest city by population, it is at the center of a vast metropolitan area and is a real laboratory of social and economic analysis. Naples belongs to the volcanic region near Vesuvius and Campi Flegrei, located in one of the most remarkable areas of the Italian seacoast and is characterized by a flat region that spans from east to west with a hilly stretch.

There are several anecdotes on the origins of Naples and like all ancient cities (Babylon, Troy, Rome), which have mythological traditions and legends about their roots, even the birth of Naples is concealed from the charming veil of myth and legend.

There are few common versions to the many stories that have enriched the heritage of legends about the origin of Naples; scholars and writers over the centuries have indulged themselves with flair and imagination to illustrate countless tales, enriching each release of details and new characters (Mazzeo, 2009). But the star of all the legends about the foundation of Naples is always the mythical siren Parthenope, who angrily left the fearsome rock of the sirens to reach the islet of Megaride, which houses the current Borgo Marinaro, after she became a victim of Odysseus's cunning. By the charm of the myth, one can move on to the reality of historical research which provided some certainties about the origins of the city: the first colonization of the Gulf of Naples dates back to about 3000 years ago, from the ninth century BC, when travelers and merchants from Greece and Anatolia, attracted by the mineral wealth of the Tirreno, founded a first colony in Pithecusa (the current island of Ischia) and then moved onto the Phlegraean coasts just opposite the coast of Ischia.

During the 1980s, following a growing demand for housing, in order to meet the need for decentralization of industrial activity, economic and demographic processes have had a considerable influence on the development of Naples: the tertiary sector has experienced a significant transformation, accompanied by a phase of moderate decentralization and has not established a link between the urban sprawl of Naples with that of the capitals of neighboring provinces such as Salerno and Caserta. This development model has prevented the creation of sub-urban centers: Naples remained the main actor of the urban region.

Apple has opened the first iOS App Development Center of Europe in the area east of Naples, to provide students with practical skills and training on developing iOS apps for the ecosystem of the most innovative and lively app in the world. The news was reported on all major international newspapers (such as *The Guardian*), as well as in the Italian press.

One natural question arises: if this thing is a cause or effect of any innovation of the city of Naples, id est (i.e. since now), did Tim Cook chose Naples because the city is bustling creative, and innovative, or does Naples have to trust in Apple and in everyone, politicians, academics, entrepreneurs, to become, in a futuristic scenario, an innovative city that is attractive for other enterprises and talents? No response will be given in this article, but only clues to the reader based on three statements in the following paragraphs explained, so he or she can then decide, by himself or herself, which will be the right answer.

In Fig. 1 Vesuvius valley is represented through the typical icon of territory expressed by the annurca apple (a typical apple of the region). So Apple became the annurca apple! Fig. 1 courtesy of the very well-known Neapolitan artist Lello Esposito.

### 3. Are creative cities for or against innovative cities?

The analysis must begin by considering that even before treating the theme of the creative city, it is necessary to solve the problem of defining this concept. In fact, as it often happens in many scientific areas, the theme comes out of the scientific debate and becomes an object of popular media and this phenomenon causes the loss of rigorous scientific character in the analytic approach, as stressed by authors such as



Fig. 1. Vesuvius valley in an annurca apple (this image has been donated to the author by professional artist Lello Esposito).

Peck and Pratt (Peck, 2005; Pratt, 2008a).

Discussions in scientific terms about creativity in the Vesuvius valley and in the city of Naples may seem superfluous for the media because, all over the world, they attribute to it the creative adjective, but in the general scientific debate, without mentioning, for now, specific case of Naples, Proof of the real problem of the lack of a unique definition of the creative city concept is that for several years different authors have used this term in many different ways (Bianchini & CLES, 1998; Hutton, 2004; Landry, 2000, 2006; Lloyd, 2006; Molotch, 1996; Scott, 2006; Bianchini & Parkinson, 1993; Currid, 2007; Florida, 2002a,b,c, 2004; Florida and Tinagli, 2004; Wood & Landry, 2007).

The term creativity has a humanistic root in the enhancement of individual/human creativity, but this vision has been strongly revised over the last few years and has been decontextualized to be exclusively linked to concepts of economic innovation and of competitiveness (Pratt, 2008b). Thus, creativity is now commonly considered as a key economic feature (Pratt & Jeffcutt, 2009).

The concept of competitiveness, however, borrowed from the business sector and applied to the urban sphere become fairly random and ambiguous. One of the best criticisms made in this regard was developed by Krugman (1994) at a country level but was also very suitable in the urban sphere, in which the researcher said that the United States could not get out of the market. This criticism pointed out that it is very difficult to assimilate the economic behaviors of cities to businesses.

In real cases, this problem is related to the pursuit of the city's competitiveness and is solved by empowering the political function of strategic urban development (Amato, 2010).

In this scenario, the cultural activity of a city is not of primary importance in generating direct economic value but it plays a supporting or facilitating role in relation to FDI, Foreign Direct Investment (Kresl and Singh, 1999).

Some authors, such as Pratt (2010), believe that there are two guiding principles where urban politics can exploit creativity, a prime asset related to the use of the cultural heritage of a city as a tourism attraction driver established especially through the promotion of cultural tourism (Ashworth & Tunbridge, 2000; Law, 1992; Richards, 1996). The second asset is related to the use of urban creativity in terms of an urban policy instrument concerning economic development.

Pratt (2010), however, believes that urban policy now looks to something more intangible but very useful to the city for both of the previously mentioned assets, id est, the creative urban climate.

The creative city can be considered as the symbol and icon of the transition from a Fordist society to a post-Fordist one characterized by the prevalence of the immaterial on the material.

In this post-Fordist society, economic sectors linked to culture and services, ones considered marginal in the modernity of the early twentieth century, have, however, become increasingly important at this time (Vicari Haddock, 2004).

Creative cities were preceded by the "knowledge cities" characterized by urban spaces with a high density of k-workers, i.e. knowledge workers employed in non-traditional activities, but more linked to immaterial and, indeed, creative ones (Florida, 2003).

Peck (2005) criticized creative cities, arguing that behind these paradigms only urban competition tools are born that do not take into account social, economic, and housing inequalities.

Scott (2001a,b, 2004) reverses the cause-effect paradigm by arguing that k-workers are not the cause of creative cities, but rather the effect, that is, considering a particular type of urban development based on innovations in companies and cohesion and competition among them, as a driver of attraction to creative workers. Scott's hypothesis found support in many previous years, when concepts as entrepreneurial cities or urban entrepreneurship began to be discussed in terms of a necessary condition to reduce funding from central governments to cities (Harvey, 1989).

Among those who criticize Florida's approach, one of the main antagonists is Canadian geographer Jamie Peck. According to Peck (2005), the direct random mechanism linking creativity with economic growth is the main weakness of Florida's approach. While Peck's logic sequence (2005, p. 757) provides: "So, growth derives from creativity and therefore it is creatives that make growth; Growth can only occur if the creatives come, and the creatives will only come if they get what they want; What the creatives want is tolerance and openness, and if they find it, they will come; And if they come, growth will follow."

Another criticism of the Florida approach is taken from Scott (2006) who thinks that the mono-dimensional character of Florida's analysis is wrong. In fact, Scott (2006) believes that creative *milieu* is the result of complex processes characterized by many variables related to the production context. Above all, Scott (2006) believes that between Florida's three Ts, the one least connected to its cause-effect paradigm is the T of technology.

Certainly, if the three assumptions described in past section 1 are verified to be sustainable and durable over time, they must be based on other assumptions than those proposed by Scott (2001a,b, 2006, 2007), i.e. creative industries based on the advanced services and based on intangible resources, such as human and social capital, must find a favorable productive environment with coordinated urban policy actions both horizontally and vertically.

So the Vesuvius valley must be characterized by high static efficiency, that is, the ability to transform income into prosperity and offer attractions and amenities that push k-workers to live in that area, and must be characterized by high dynamic efficiency, progressively becoming a smart city with efficient and innovative services for people, citizens and tourists, and businesses.

Such efficiency levels can be achieved by satisfying the 'creative field' or set of interrelations that stimulate and channel individual expressions of creativity (Scott, 2006).

This field is organized in three levels.

At one level, this phenomenon coincides with the networks of firms and workers that make up any given agglomeration and with the multiple interactions that go between these different units of decision-making and behavior. At another level, it is partially constituted by the infrastructure facilities and social overhead capital, such as local schools, universities, research institutes, design centers, and so on, that complement the innovative capacities of these networks. At another level, it is an expression of the cultures, conventions and institutions that come into existence in any agglomerated structure of production and work. Each of these levels of resolution of the creative field is susceptible to functional blockages and failures of various sorts, and policymakers can play a significant role here in helping to improve overall system performance (Scott, 2006, p.8).

To face the theme of the city's creativity as a meta-factor for development of other features related to it in rigorous and scientific terms is an operation that necessarily goes through Richard Florida's theory, which has generated the "Florideans", i.e. his supporters, and the "anti Florideans".

When a scientist writes a physics, chemical, or biological formula, he can, according to the Galilean method, repeat the experiment under the same test conditions and validate the goodness of the proposed formula, when, someone, like Florida, launches a statement, he cannot validate it scientifically and so he allows the opening of a debate between 'the for' and 'the against'.

Florida's statement is that a creative city is also an innovative city, forged of initiatives and local development. This paradigm is proposed in his famous book "The Rise of the Creative Class: And How It's Transforming Work, Leisure, Community, and Everyday Life".

Proof that the debate on this issue has increasingly become not only the subject of newspaper articles, but also the subject of academic research, is given by the constant stream of publications on creativity in urban policy. The last decade has been characterized by: several major conferences and sessions focusing on this issue through recent books (eg Kong and O'Connor, 2009; Edensor, Leslie, Millington, & Rantisi, 2010) and special focuses (eg Urban Studies, 2009; The Australian Geographer, 2010; City, Culture and Society, 2010).

The constant attention of numerous academic works on the "creative city" reflects the growing centrality of the notion of creativity in urban policy around the world. Influenced by urban theorists and professionals such as Charles Landry (2000) and the above mentioned Richard Florida (2002a,b,c, 2005, 2007) with Charlotta Mellander and Kevin Stolarick (Florida, Mellander, & Stolarick, 2008, 2010) and with the adoption of the "Creativity" in urban policy around the world (Florida and Tinagli, 2004; O'Connor, 2005; Kong, Gibson, Khoo, & Semple, 2006; O'Connor & Xin, 2006; Kong and O'Connor, 2009; Peck, 2011), culture and creativity have always been incorporated in urban strategies to sustain the economy of city-regions and in the enhancement of the capacity of cities to compete for resources strategies in the context of globalization with a consequent increase the local competition.

The works of Richard Florida (2002a,b,c, 2005, 2007) and his colleagues Mellander and Stollarick (Florida et al., 2008; 2010) were particularly influential on the spread of the concept of "creativity" in urban policy, especially through what he calls, and now is called in technical literature, the "creative class", above mentioned from his book.

Florida (2002b: xiii) defines the "creative class" as the set of those people who are remunerated mainly to play a creative work, not kind of hobby, that enables them to live: scientists, engineers, computer scientists, artists, musicians, designers, i.e. all those who are employed based on knowledge.

His paradigm proposes the equation that a friendly, different, tolerant, multiethnic city, is able to attract and retain, disproportionately, high numbers of this important "creative class". In turn, he claims, as a positive corollary for urban development, that this urban connotation will attract companies and investment, especially in high technology sectors, stimulating the economic growth of that territory. The approach therefore emphasizes the importance of the three Ts: Talent, Technology and Tolerance.

Another important cornerstone of Florida's theory (criticized by a part of the published literature) is that companies will always follow the creative people, rather than follow the different professions, especially in the present age in which the mutation of professions is very dynamic: many traditional jobs are in crisis and new occupations bloom quickly.

He imagines a model in which all must turn around the "creative people climate".

This "creative city climate" is characterized and distinguished by high degree of openness to diversity, strong propensity for inclusion, strong spirit of tolerance and a good supply of high cultural quality. From the city climate it is fast the passage to the city itself, where from



the positive externalities of this presence of the creative class, it derives a consolidation of existing entrepreneurial class and an extension of new entrepreneurship.

According to his paradigm, the cities that have the creative city atmosphere should be liberal, cosmopolitan and multicultural bohemian.

The most important criticism of the Florida's theory, indeed, has been moved forward by he who recently revised his own ideas and downsized the value of the paradigm that he himself had proposed with so much emphasis in previous years. After fifteen years of development plans tailored to the creative classes, Florida now surveys an urban landscape in ruins. The story of London is the story of Austin, the Bay Area, Chicago, New York, Toronto, and Sydney. When the rich, the young, and the (mostly) white rediscovered the city, they created rampant property speculation, soaring home prices, and mass displacement. The "creative class" was just the rich all along, or at least the college-educated children of the rich.

Over the last decade, Florida has been beating a retreat away from some of his early optimism. As early as 2005 he described the "externalities" of the rise of the creative classes, namely, they brought dizzying levels of income inequality into every city that they've inhabited. As his work evolved, the "creative economy" has ceased to be a goal and instead become an unstoppable force, something that governments need to be tame rather than encourage.

In his latest book, *The New Urban Crisis* (2017), he argues that the creative classes have grabbed hold of many of the world's great cities and choked them to death. As a result, the fifty largest metropolitan areas house just 7 percent of the world's population but generate 40 percent of its growth. These "superstar" cities are becoming gated communities, their vibrancy replaced with deracinated streets full of Airbnb's and empty summer homes, meanwhile, drug addiction and gang violence have spread to the suburbs. "Much more than a crisis of cities," he writes, "the New Urban Crisis is the central crisis of our time", "a crisis of the suburbs, of urbanization itself and of contemporary capitalism writ large".

Among its own extreme positions, early Florida and later Florida, it remains an objective fact that urban creativity, if managed and governed, is a great value, absolutely and with regard to urban innovation.

So are creative cities for or against innovative cities? Which strategy could be better to opt for in innovative city targeting? The choice related to the opportunity to contribute to the efficiency of an already existing city with enormous potential level of innovation and rich in human capital, creativity, and relationships to make it an innovative city with efficient services, or to search for a new city already built according to modern smart criteria with efficient services but without a city identity and without native citizens? In both cases there are advantages and disadvantages.

Consider the fact that, on average, greenfield projects have a budget up to ten times greater than brownfield project budgets (Alcatel-lucent, 2011), therefore, they require generous investments and industrial policy choices (Alawadhi et al., 2012; Copenhagen Cleantech Cluster, 2012). Furthermore, consider the exclusive excellence of maximum efficiency as the polar star for a new city, which could lead to numerous negative externalities that would hardly make the city a sustainable city, such as those related to social issues, such as social cohesion and quality of life, (Angelidou, 2014, 2015; Bria, 2012; Lind, 2012; Ratti & Townsend, 2011).

The phase related to the fruition of high efficiency services does not provide for a purely technological dependence, easily replicable in other urban contexts, but it is closely linked to the human factor, the habits of citizens, ethical, moral, religious, and behavioral attitudes that change from town to town. Therefore, the choice to design an innovative city without considering those who will be their citizens is a process affected by many risks (Pike research, 2011; Sassen, 2011; Townsend, Maguire, Liebholt, & Crawford, 2010).

In existing cities with a strong vocation to innovation but with low

efficiency and smartness of their urban services, the benefits just deriving from an already consolidated stakeholder ecosystem could be discovered (Robinson, 2012), which highlights the commitment and the will of the citizens to make their city more smart but also characterized by better life, i.e. socially sustainable (Bria, 2012; Paskaleva, 2011; Sassen, 2011; Ratti & Townsend, 2011).

The design of innovative actions in existing cities consists into targeted and thought-out actions for citizens' services (platforms and applications) without the need of large investments in smart infrastructures (Garner & Dornan, 2011; Walravens, 2011).

Finally, to close the critical/opportunity framework of existing cities in which to implement actions to make them more smart, some of the opposing elements to which these actions have to face, are also reported:

- the complex ecosystems made by people, institutions and stakeholders need major organizational efforts in the first phase and significant disciplinary efforts in the regime situation where it is necessary to educate citizens to new behaviors and to new ways of fruition of urban services (Angelidou, 2014, 2015; Bélissent, 2010; Ratti & Townsend, 2011);
- revamping an existing city's infrastructure could be an obstacle in the creation of a smart urban morphology (Angelidou, 2014, 2015; Bélissent, 2010; Pentikousis, Zhu, & Wang, 2011);
- unlike new implementations where the priorities of intervention actions are set at the design stage by simulation tools that optimize their efficaciousness and their efficiency, in existing cities the order of priorities comes from real needs already consolidated in the community and this can lead to a non-linear development (Bélissent, 2010).

#### 4. Naples: a creative city?

It has been said, according to Florida, that the correlation exists between the level of creativity of a city and its appeal in attracting skilled labor in sectors linked to the knowledge economy and/or attract demand of skilled labor, i.e. the companies. This statement is, however, also disputed by other researchers and it stands to question, before investigating this paradigm, whether Naples is a creative city.

In common thought, the answer is positive. Naples, and in general the Neapolitan area, has always been associated with creative improvisation factors, of theatricality. The art of getting and the skit are two pillars, two milestones of territorial representations, roadmaps that have walked the streets of fame all over the world together with the known folkloric items par excellence, Vesuvius and pizza.

Are the famous folk icons of the city of Naples, such as Vesuvius, pizza and coffee, urban factors that help to create and to facilitate the urban creativity and innovation, or hinder them, because they obscure the science and scientific culture of the city? Vesuvius holds a record in the world, namely that of being the first volcano to be systematically studied (by the will of the ruling house of Bourbon), and studies that continue to this day by the Vesuvius Observatory. At the behest of King Ferdinand II of the Two Sicilies and dating back to 1841 was the construction of an observatory (which is still active, even if only as a subsidiary of the most modern facilities located in Naples) and now volcanology is a real scientific discipline, born in those years. As Proof of the high level of scientific leadership of the Neapolitan business, just think that when in the first decades of the twentieth century, the US decided to create an observatory in Hawaii; they looked to the Vesuvius Observatory as a reference. There have been no eruptions since 1944. Nevertheless, some legislative interventions have identified a red zone, because the volcano is, however, considered to be in a quiescent state.

Another symbol-icon which, according to Florida, or rather according to Florida's theory because he did not directly express the topic, reinforces the creativity and thus innovation of the territory and that instead, blurs, according to anti Floridian theories, scientific talent as

well as technological and other disputes that characterize the city: the pizza.

Pizza has distant historical origins, traces of which can be seen by the end of the 1500s. There are historical records revealing that in the ancient suburbs of Naples, the focaccia-bread was called pizza.

In 1700 tomato imported from Peru arrived onto the pizza. It was at this stage that the dish began to spread, finding popularity abroad. Thanks to migrating Italians, pizza began to be cooked around the world.

The historic crowning achievement happened in 1889, during King Umberto I and his wife Margherita's visit to Naples; Raffaele Esposito, considered the best pizza maker at the time, served pizza to the sovereigns. Queen Margherita, so much appreciated the taste of that dish that she thanked Esposito in writing. To reciprocate the thanks of the queen the Neapolitan pizza maker called the pizza with tomato and mozzarella "Margherita". It was then that the Pizza Margherita was born.

After World War II, another phase of expansion began for this dish. It was the era in which many southern Italians began moving north in search of work, and with them the pizza came to the large industrial districts, such as Turin and Milan. After the fall of the Berlin Wall and the end of the Cold War, this dish was exported to countries like Germany, Japan, the Middle East, Eastern Europe and China.

Today the pizza turns out to be indisputably a world flat, synonymous of good living and good eating. It is a culinary tradition with centuries of history behind it, and the whole Neapolitan made its presence known in last EXPO 2015 within the Italian Pavilion.

Obviously the pizza, for its reputation, is among the "Made in Italy" products that are most subject to the Naples-sounding phenomenon.

The more general Italian-sounding phenomenon steals 60 billion from Italian producers. However, the turnover linked to the pizza product is of enormous importance: according to Fipe data (Italian federation) it is about 62 billion euro, with Italy, Germany, France and Spain, which are the masters, absorbing 78 percent of the market.

Pizza is found more and more outside of Europe, where the street food of ancient Neapolitan memory is conquering the palates.

In Italy there are about 42,000 pizzerias counting 100,000 employees. Of these there are 65,000 Italians, 20,000 Egyptians, 10,000 Moroccans and 5000 from Eastern Europe, Asia and other countries.

In Italy, at present time, according to data of public exercises Italian Federation (Fipe), the consumption of pizzas, each week, stood at 56 million, or nearly 3 billion pizzas consumed in a year.

In recent years one of three Italians likes to make pizza at home and when choosing outside the home, prefers to eat in the company, which is an additional factor of regional economic development.

On this theme, regarding the pizza and more generally Neapolitan creativity, it is also possible to discover someone who thinks differently, such as the famous sociologist Domenico De Masi (2016).

It is interesting to bring forward his point of view as reiterated in his latest book published by Italian editor Rizzoli, in which he devotes a chapter to Naples focused on its negative records defining the Neapolitan underclass as "planetary metaphor of urban parable" in these terms: "Neapolitans? Childhood. Pizza? A wasted deal. Neapolitan creativity? A complacent commonplace. The Camorra? The only professional organization and meritocratic. When Goethe came here he found the most ingenious industry not aimed to enrich the territory but to live without worries. But after two centuries and beyond the effort of the Neapolitans to turn misery into a resource and life in the theater has not had the enjoyable effects described by the German poet. Any attempt to progress is bound to fail because the enemy of Naples is not external but internal."

Naples has passed from pre-industrial economy to post-industrial society without knowing the modern organization of work experience. At the end of the nineteenth century, set before the junction to "industrialize or decay", Naples declined. The lack of modernity gives the same post-industrial society a set of diseases: overpopulation,

unsustainable consumerism, environmental disaster, and impotence in the face of complexity, disarmament before crime. And as the makeshift economy tilts toward failure, so to does the Neapolitan and southern psychic system, with subdued emotionalism, tilt towards childishness. The pizza, which is the gastronomic symbol of Naples, is a myth that tells the Neapolitan failure.

To reconcile different positions, tradition and science, technology and pizza, the professor Bruno Siciliano could be cited, who won several awards worldwide for his achievements in robotics, a real eminence of the global industry, a master of the Neapolitan school of robotics, appreciated in Italy and abroad, and often visited by professors and researchers coming from the whole world. For his *Springer Handbook of Robotics*, he was awarded the Oscar of scientific books (Prose Award for Excellence in Physical Sciences & Mathematics), while his textbook, *Robotics*, is currently used by all major universities in the world, including Stanford and translated in several languages, including Chinese.

Bruno Siciliano, is director of the robotics lab, PRISMA Lab. and is a son of this land. In 1987 after earning a PhD at the University Federico II he became a professor at the same university.

He is famous for his "pizzaiolo robot" as found in Fig. 2.

The robot that bakes pizza was created in Naples in Prisma Lab Federico II, called RoDyMan (Dynamic Robotic Manipulation) and can handle all stages, from mixing to baking. It has a torso, two arms and hands reading with multiple fingers. It has no legs, but thanks to the wheels is able to move in any direction. Moreover, it possesses proximity sensors, tactile sensors and field sensors. And on its head is a stereoscopic camera. Service robots can replicate human activities with a level of dexterity and mobility never seen before, made possible thanks to a research project funded with 2.5 million Euro by the European Research Council. The fun application for pizza processing is used to test the high sensitivity that the robot needs for surgical medical applications.

Regarding the other element symbiotic with the city of Naples and key icon in some works by the famous artist Eduardo De Filippo is the coffee. It is said that everything began from the heartbreak of a Roman musicologist, Peter Della Valle in 1614. After leaving the Eternal City for a disappointment in love, Della Valle settled in Naples. Later his adventurous disposition prompted him to leave for a more eternal place: the Holy Land. There he fell in love with a beautiful woman, and remained for twelve years. But he had not forgotten the friends he had made in Naples: with one of them, his doctor and poet Mario Schipano, he had remained in epistolary contact. In one of his 56 letters, the musicologist tells of a very special drink called "kahve": a scented liquid that came out of pots placed on the fire, and poured into small porcelain bowls, continuously emptied (and filled) during the conversations that followed the meal. It is likely that, on his return, the young man introduced the kahve (coffee) in Naples.

Others claim that the drink arrived clandestinely at the University of Medicine of Salerno, touted as a drug a century before the Della Valle travel. Still others claim that coffee may have already been present in Campania around 1450, when the Aragonese reigned in Naples. Alfonso of Aragon was then head of a vast empire formed by Aragon, Catalonia, Valencia, Majorca, Sardinia and Sicily and his ships sailed the Mediterranean Sea, and from there reached the ports of the Levant bringing all tradable eastern products.

But the origins are even older. Coffee is mentioned in the Bible, Homer, and other sources that relate to Arab culture. Initially it was consumed during long journeys that lasted weeks. Only around 1000 d. C. were coffee beans boiled in water, producing a new drink. The West discovered coffee between 1500 and 1600 thanks to the arrival of ships with sacks containing coffee beans in the ports of Venice and Marseille, and then the drink was called "Arabic wine". Initially, the Church accused it of being the "devil's drink", until Pope Clement VIII decided to bless its use. Since then, coffee spread throughout, and consumers numbered in the millions both in Europe and in America.

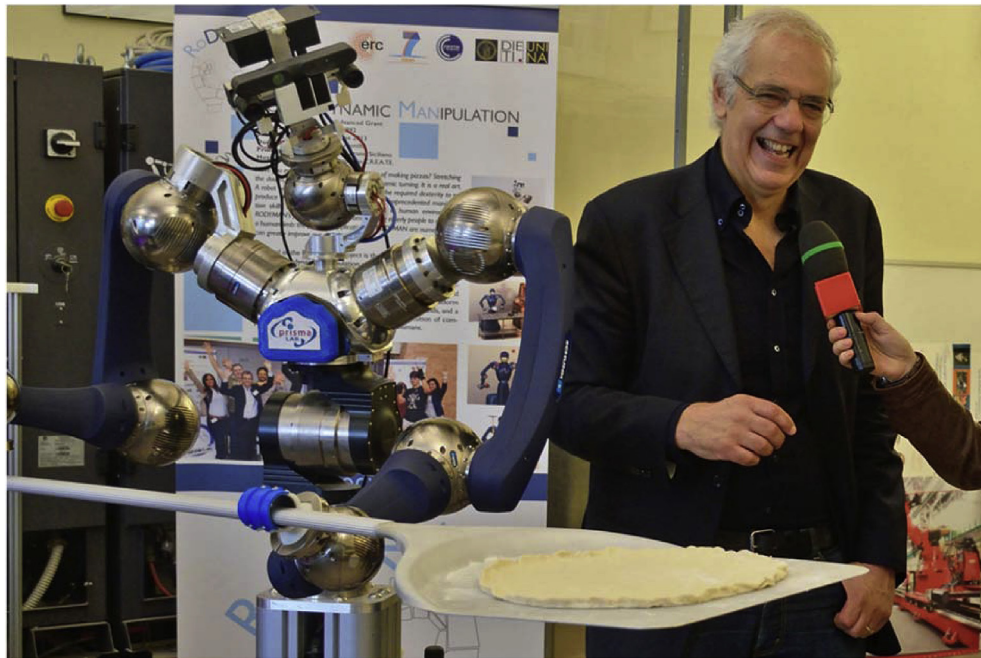


Fig. 2. Professor Bruno Siciliano with his “pizzaiolo-robot” (Source: ristorazioneitalianamagazine).

In 1600, however, scientists spread the rumor that the drink was poisoned and those who had drunk it, in the Day of Judgment, would come out from the tomb of black-like coffee grounds.

Involuntarily King Gustav III of Sweden proved to the world that this drink was not anything poisonous. The king, in fact, signed a death sentence to be carried out by administration of coffee. It is said that, despite the large doses, the two culprits lived up to more than 80 years. And so the drink was acquitted.

The 1700s and 1800s were the golden age for the drink with the opening of many “Coffee” shops where intellectuals met to discuss politics, current affairs, and gossip.

Currently, especially in the city of Naples, the coffee break is considered a friendly moment, but above all, also a creative scientific meeting and more and more the physical cafe locations are becoming cultural and scientific agorà where scientists are hosted with the aim to divulgate the science behind the walls of universities.

#### 4.1. Cultural breakthrough: art and innovation in Naples

Quickly browsed on the colored traits, the origin and history of the icons that may be considered the hypotheses of “Florida’s theorem”, one also needs to investigate the link between creativity and the urban role of local politics.

In Naples, not to go too backward and avoid falling into critical drifts towards this or that class or political establishment, a far condition from the aim of this article, a reference may be made to the early 1990s, in which culture was understood by the political class as a common resource to rebuild a sense of belonging and community spirit. For Bassolino, the Naples city mayor, the opening of the “square”, in its broadest sense, to contemporary art, had a double meaning: to give back to the Neapolitans an emblematic place of their history and to confirm a characteristic trait of the most authentic identity of the city; the taste of the experiment, the ability to deal with the novelty and with the party as a significant cultural experience. The Largo di Palazzo, which took its current name from the plebiscite which Naples ratified their annexation to the Kingdom of Savoy in 1860, had been a messy and crowded parking lot for years, until the autumn of 1994, on the occasion of the G7, the square was cleared, repaved, closed to traffic and returned to the enjoyment of tourists and citizens. Thus it became

the symbol of the renewal of Naples, rediscovering its ancient place of function of parties and celebrations.

Since the square, and particularly, Plebiscito’s square, came to be characterized by this deep and rich connotation of meanings, numerous events have been affected over time and this can perhaps help answer the question posed at the beginning of the paragraph on the verdict of creativity on the city of Naples. It was 1995, the year of “Salt Mountain” by the artist Paladino, by then famous all over the world, and a work of great visual impact; the Neapolitans had fun photographing and climbing it, taking an auspicious punch of salt. The event surpassed the boundaries of the specialized public, seduced ordinary citizens and captured the attention of the mass media around the world. Art could again be a popular matter and an identity concept!

This breakthrough moved the city politics in all the following years.

For fifteen years after the artist Paladino, prestigious artists intervened in the square of the renewed Naples.

Intellectuals have expressed their opinions on the topic, such as the well-known gallery owner Lucio Amelio, the former director of the Mother Eduardo Cicelyn Museum who first had the idea to place works of art in Piazza del Plebiscito.

Then in the nineties, this fanciful dream won on the level of communication and became a political-cultural reality, combining the historical values of the ancient city contemporary languages, putting together conservation and innovation. On the national scene it was a phenomenon of absolute originality, which gave way to great achievements: the subway stations with hundreds of works of art, the Madre Museum, considered one of Europe’s most prestigious international companies, Pan palace, Theatre stable, the Italian Theatre Festival, the auditorium in Ravello, the twentieth century Neapolitan museums.

After Paladino it was the turn of the artist Gianni Kounellis who put a long metal plate in place on which shone flames fed by gas bottles. Under the arcades of San Francesco 185 old cabinets collected from local scrap dealers hung suspended. Neapolitans looked with their noses in the air, as if their furniture had suddenly hovered to the top.

In 1997 Mario Merz filled the square with red wooden tables and steel and neon reproducing a Fibonacci number sequence.

In 2000, in the new millennium, there was a spectacular scenario with a huge red pvc trumpet, signed by artist Anish Kapoor, 32 m high

and 51 m long, that excited the Neapolitans. The following year, Joseph Kosuth wrote his "rethink the true" along 150 m of the arcades of San Francesco, with 60 cm high neon letters. Then Rebecca Horn triggered a debate between the Neapolitans: some loved the refined Hamburg artist, who referred to the deep roots Neapolitan imagination with its bright aureole that lit 333 bronze skulls stuffed into the ground, and those who passed through the square doing their fingers crossed (a superstitious gesture).

During the Christmas season for fifteen years, from 1995 to 2009, Piazza Plebiscito was the heart and expression of Naples, the scene of original, complex, stimulating, interactive and sometimes discussed art installations, commissioned to great names of international contemporary art in the twentieth century, which surely constitute a valid hypotheses for the Florida theorem's demonstration.

## 5. Naples: a past as a Fordist city

Before the outbreak of the Second World War, the most important industrial core of the South Italy area, the "Mezzogiorno", was found in the Province of Naples, far from the geographic triangular of the cities Turin, Genoa and Milan. However, compared to North Italy, the damage caused by the bombings of the Allies and caused by the German bombers in the second half of September 1943 were considerable.

At the end of the 1940s, economic growth was boosted by Marshall Plan aids, by tax breaks, by the reorganization of the IRI (Institute for Industrial Reconstruction) and by the birth of the Finmeccanica, a large technological public company. In the Vesuvius valley the main industrial sectors that developed were electric, metallurgical, textile, chemical as well as those for traditional products such as molasses and pasta, tanning, gloves and shoes.

According to the first census of republican Italy, in 1951 Naples was the first industrial reality in the south; but only 5.6% of the provincial population worked in industry versus 25% in Milan, 23% in Turin and 14% in Genoa.

In the next decade, the province of Naples also participated in industrial development: many important new factories were created, including Cementir in Coroglio (a district of western Naples), Italtubi and Lepetit in Torre Annunziata (on the slopes of Vesuvius), Rodhiatoce, and the Microlamba. There were heavy industry benefits from the public company Finmeccanica's acquisition of many factories in Castellammare, Naples, Pozzuoli and Pomigliano (a district of eastern Naples), as well as benefits from large private companies including Fiat in the automotive sector, with a small company in Naples and Olivetti in the ICT sector in Pozzuoli (western Naples).

The industrial census of 1961 showed a strong increase in the workforce and production units; the industrialization coefficient increased, but was still far from that of Milan, Turin and Genoa.

Beginning with the pilot company of Pozzuoli, inaugurated in 1955, Adriano Olivetti's dream of a model factory, designed as a "measure of man firm", seemed to be achieved in Neapolitan territory, where finally cultural and civil dignity was ensured for manual work. It lasted a few years.

The three-year period 1962-64 was problematic for the whole country due to a rise in prices, higher labor costs, lower government bills, credit restrictions, increased foreign competition, and the internal market crisis.

Following this period, several episodes announcing progressive de-industrialization caused the loss of 24,000 jobs and a substantial use of the public fund named "Cassa per il Mezzogiorno" began to occur.

In the meantime, the Italsider (IRI group) was founded, which detected and relaunched the ancient Ilva plant in Bagnoli (a western Naples district by then already producing one million metric tons of steel and 600,000 metric tons of laminates).

This resulted in a remarkable increase in production, greater automation, but also problems of disposal and high pollution. Connected to the Istalenter were some smaller ironworks in Torre Annunziata

(Dalmine, Deriver).

New factories, of medium size, with typically 200–300 workers, were founded by the Northern Industry (Ignis Sud, Pirelli) or multinationals (Alisco Malugani, Ciba-Geigy, Richardson-Merrell, Knorr, Pepsi Cola, Unilever, Fag, and others) attracted by incentives and by the policy of the Cassa del Mezzogiorno, cheap labor, and the expansion of the Italian market.

In the meantime, after 1964, both private and public Italian industry resumed its journey and increased the gap with the South. The Neapolitan economy survived at a certain level only through public works, construction and state-owned investments, mostly based on isolated interventions, without efficient planning.

An important answer to this situation came a few years after the creation of the Alfasud automotive plant in Pomigliano d'Arco: designed in 1966, the plant was built after 1968 and began production a few years later with over 6000 employees, executives, technicians and workers.

After the birth of Alfasud, the Italian private industry invested in the Naples province, attracted by tax breaks and by the lower unionization of the working class.

In October 1973, the energy crisis crushed Italsider and Alfasud and pushed foreign corporations to shut down factories. After the energy crisis, the Naples province industry restarted growth although there were many lost jobs and extensive use of the public integration fund for jobs.

In the following years there was some progress in the construction sectors for means of transport (consisting of a series of small and medium-sized production units serving mainly Alfa Romeo and the Aeritalia plants in Pomigliano d'Arco), leather, and the polygraph. All the other manufacturing sectors, even metal mechanics, which remained the largest ones, began to fall, which contributed more or less to the period of de-industrialization.

The important innovation field was then represented by the aeronautical pole, which consisted of the Alenia (Finmeccanica group), Avio of Pomigliano, Magnagh of Naples (specialized in landing systems), and Casoria Partenavia (light vehicles). At the end of the 1980s, 11,000 employees were employed in the 5 leading factories, achieving excellent results in research, modernization and training. The subfund was supplemented by about thirty medium-sized companies tied to supply contracts, employing 2000 workers and an artisanal galaxy of small and very small production units, who set themselves up as sub-contractors or providers of ancillary services.

Two centuries have passed since the early settlements of the industry in Naples. It is a long history marked by primacy, great technical achievements, struggles and civil conquests, but also by contradictions, periods of crisis and decadence. The work produced over such a long period of time has allowed the city to acquire a wealth of knowledge and technical skills, giving it the role of third industrial city in Italy, at the center of an area rich in strong production ferments and in the era of great industry advance.

From the nineties to today, companies discovered a new frontier: markets became global. Even small business could not ignore that their comparison was with all the competitors in the world. Companies leveraged all factors to improve their competitiveness. Meanwhile, the new economy, the economy traveling along the internet network, was imposed.

In addition to these aspects, it must be taken into account that new factors and new players, such as the so-called "emerging countries", including China, which have now become the most powerful economic powers, reducing the quota of international products made in Italy, market saturation, and cost relocation.

In an increasingly productive reality shifting towards services based on knowledge, competencies became fundamental, but to these, the environment context, the local and economic territorial system must be added as a matter of primary importance.

Therefore, the new phenomenon that characterizes Vesuvius valley



in recent years is the industrial decommissioning, de-industrialization and desertification, the downsizing and the disappearance of large industrial enterprises (eg. Italsider), and the opening up of major industry crises (metal and chemical engineering) leading to the disappearance of medium-small businesses as well.

The Vesuvius industrial field during this time was represented by a myriad of small enterprises that work mainly on behalf of third parties (hence without their own market), with an average of 3.5–4 employees, unable to reorganize their productive capacity.

This situation, in part negative, however, was characterized by a positive difference between foundation and closure of enterprises, and was also characterized by a new focus on quality production and innovation that make small enterprises able, in some cases, to assert themselves as leaders in market areas to the same extent as medium-sized enterprises in other markets.

## 6. From dismantled industrial areas to knowledge farms: evidence from the east area of Naples

As discussed in the last paragraph, Vesuvius valley is characterized by a myriad of small knowledge services oriented enterprises. The transition from being a creative city based on knowledge to its policy coding began in 2006, proven by the following statement from the strategic action of the city of Naples, as shown in Table 1.

In this strategic action plan the will to regenerate east area of Naples was declared.

The eastern area of Naples is an example of how innovation can not only be a development flyer, but also an opportunity for environmental reclamation in peripheral areas, characterized by the discovery of activities and the need for land reparcelling (Palmentieri, 2017).

The area, including the centers of Ponticelli, Barra, Poggioreale and S. Giovanni a Teduccio, with a total of more than 200,000 inhabitants, represents a significant and organic portion of the urban system in the metropolitan city.

As is well known, the architectural conformation at the center of Naples inhibits the existence of large industrial poles or mammoth sized companies. That is why, since the mid-1700s, the eastern part of the city was identified as an industrial area. It was far from 1779 when the first major building was constructed, the great Granite factory, a Bourbon megastructure destroyed during the last war, destined for grain silos, factory, wires and an artillery depot. A manufacturing structure began to be defined at the beginning of the 1800s, with large settlements mainly belonging to the textile and mechanical industry, and others, of a smaller size, to the sectors of colored glassware and leather processing. In the 1920s, a large plant-conservation company, the Cirio, was born. It was a huge complex near the Vigliena area, a natural extension of the Naples harbor. At the end of the 1930s the company already had 5000 employees at San Giovanni a Teduccio, but it closed in the 1980s. Similarly, Corradini was founded by the Swiss entrepreneur Giacomo Corradini, and became a large complex for the

production of copper artifacts, generated by the extension of a previous metallurgical plant, the Delny-Gravié. Corradini was also on the coast of Vigliena, between the railway that leads from Naples to Portici and the sea. Founded in 1882, it reached an area of about 6000 square meters and had up to 7500 employees. Damaged during World War II, it closed in 1949. That area now belongs to the City of Naples. Another remarkable reality is that of SNIA Viscosa, a company that began by shipping and then producing textile fibers such as viscose. Also, like Cirio, it was founded in the 1920s and had up to 10,000 employees. The SNIA Viscosa, above all, represented a true social revolution for the territory. In fact, on the initiative of the company, a residential district, police clinic, asylum and other social and recreational services were created, all structures that established a very strong link with the territory, and which remains in memory of the inhabitants of San Giovanni a Teduccio. It was dismissed in the 1970s. Also at the Vigliena, the Capuano Central was impressive. The construction work was started in 1930 by the Southern Electricity Company (SME), founded in 1899 on the initiative of a long-standing Geneva finance company led by engineer Maurizio Capuano. The plant integrated the supply of energy that the Sme produced elsewhere and was involved in the city. The Second World War, however, caused serious damage to the Capuano Central, which, unusually, would be demolished only after the 1980 earthquake. It was in 1953 when Sme, with American funding from the Marshall Plan for post-conflict reconstruction, gave birth to the new Central Thermoelectricity of Vigliena. So, the electrical compartment has also been a driver for the economy of the East Zone for more than half a century.

Subsequently, several petrochemical industries emerged. In 1937, the first refinery was built, directly connected via a particular pipeline to the oil port of Naples harbor. In 1938, OCREN was set up in this area, today known as Ansaldo Trasporti. Not far away, in 1956, Ignis Sud emerged, today known as Whirlpool, which soon became one of the most important mills in southern Italy for the production of washing machines. Also significant for the Neapolitan economy was the Tobacco Factory on via Galileo Ferraris; inaugurated in 1956 with a high of 3000 employees, it was abandoned in 2000. It is clearly evident, in almost all cases, that the end of that industrialized era, one that gave vitality, occupation and freedom to the citizens of those neighborhoods, otherwise a differently destined rural footprint, which could be traced back to the seventies and eighties of the last century. The weakening of this well-established and solid industrial pole began to emerge with the expansion of the tertiary sector and building boom of those years. Homes were supposed to replace small factories, because the industry then was considerably more profitable for entrepreneurs and less polluting in compliance with standards. Large companies were too close to homes, causing a huge pollution rate, especially with reference to power plants. Thus, the beginning of the national crisis in the manufacturing sector, the development of the tertiary sector, the construction sector and finally the pollution represented the major factors of deindustrialization of the entire area.

The connotation of the eastern part as the industrial-manufacturing pole of the city, however, was clearly defined in the first half of the nineteenth century, when the benefits of proximity to the sea and the city increased the availability of labor.

Even though development did not stop with the unity of Italy, a part of the industries, however, began to enter into crisis afterwards. This was not only because of difficulties in joining the national economy but also because of a lack of an organic plan linking the localization of new industrial settlements, infrastructure networks, and adaptation of the historical settlement system. This would have avoided the growth of the productive apparatus that took place in a context characterized as the great urban disorder. In 1904, in order to counteract the general industrial crisis, the special law "Risorgimento Economico di Napoli" was issued, with which the Industrial Zone was established and the concessions for the productive activities were established. It was a success that promptly delivered some 60 implementation requests to Naples for

**Table 1**  
Strategic action of the city of Naples. (Source Comune di Napoli).

|                        |  |
|------------------------|--|
| For a "Knowledge City" | a To promote the activation of integrated systems of excellence (University-Research-Enterprise)<br>b To facilitate the location of businesses operating in an urban technology district<br>c To develop the knowledge chain (education-training-work) |
| For a "Connected City" | a To facilitate broad access to networks (materials and intangible)<br>b To promote new metropolitan centralities  |
| For a "Creative City"  | a To promote creative regeneration of suburbs and historic centers<br>b To fight violence and social inequalities<br>c To promote Naples as the center of Mediterranean culture  |

a total investment of almost 200 billion. During the Fascist period, urban planning aimed at creating large urban areas as integrated autarchic systems led to the annexation of the Ponticelli, Barra and San Giovanni in Teduccio, Naples. Throughout the first half of the twentieth century, however, still lacking an organic urbanization plan, the city continued to witness a process of chaotic and disordered expansion. After the First World War, the creation of major infrastructural works had ignored the system of relationships that characterized the urban armor of the eastern part of the city. During the Second World War the area increasingly assumed the characteristics of a suburban territory, used for productive and service activities, through structures traditionally located where the city ended, such as prisons, markets, large industrial plants, purifiers and power plants. The formation of the Naples-Salerno motorway, whose track was alongside the Circumvesuviana, the train line around the Vesuvius, reinforced the barrier between Barra and Ponticelli. This has resulted in the creation of an industrial urban periphery characterized by a high degree of indiscriminate and disarmament between urban and suburban entities. It was a deterioration that today appears much more evident in the dismantling of many of these plants and the resulting creation of urban voids. The ancient farmhouses that were involved in the incontrovertible urban growth of Naples underwent a progressive process of peripheral destruction with respect to the city itself. The balance between population, activity and mobility, which had in the past characterized the settlement system, was abolished, while the inhabited centers began to lose their autonomy and identity, turning into marginal areas with the city, often dull and degraded dormitories for the weaker social layers, where even the fast-moving road system was poorly dimensioned because it was superimposed and not integrated in the original configuration of primary and secondary paths. At the beginning of the new millennium, there was an urgent need for a productive restructuring, requiring a great deal of reflection on the objectives, methods and tools to be used in relation to the current layoffs, and the perspectives for reintegration of new productive activities characterized by size and qualification profoundly different from the industrial past. Previously denied, the need to redefine the very character of the city as a whole, in the sense of its opening to the territory, began to emerge.

Today, the east area is characterized by a variety of productive poles: the Pole of Mechanical Machining, with about 150 local units, the Petroleum and Energy Pole, with 44 local units, the Textile, Clothing and Food Center with 75 local units, the pole of paper, wood, plastic and miscellaneous machining centers with 94 local units, the Pole of transformation of ferrous material with 40 local units, the Wholesale Business Pole with 263 local units and the High-Tech Pole with 3600 working units.

In this area is the research center CESMA, Center for Advanced Metrological Services of the University Federico II has been present for two years (Figs. 3–5). It is here that a pre-existing laboratory network uses new laboratories to perform measurement activities in several different fields such as Engineering, Physics, Chemistry and Biology. The Center CESMA comes as node connection between the University Federico II and the industries and enterprises of the east urban area of Naples (De Falco, 2015a,b; DeFalco & Angrisani, 2015; DeFalco & Polese, 2015; De Falco, 2014).

In addition, the previous government headed by Matteo Renzi, signed the, so called, “Pact for the South” with the mayor of Naples, of which 40 million euro for a transport infrastructure, a light tram traveling in a preferential road in order to enhance the area, and another 89 million euro was allocated in a project aimed to clean up the sea of the east coast of the city.

Concerning the Apple Academy, located in the Naples East area, Apple is investing several million euro in order to make courses free for all students. Engineers and faculty members carry heterogeneous skills including design, business and marketing, and programming. Apple also provides hardware and software for courses, including an iPhone

and Mac for each student. Apple and the Federico II University specially designed the facility with a focus on collaborative and open working spaces. The Academy, first in Europe, was inaugurated in October 2016 by hosting the first hundred students and another 100 started the courses in January 2017, each selected from a pool of 4000 candidates. In three years, 1000 developers and entrepreneurs will study in the structure.

The real facts about the Apple establishment and those of other important companies such as Deloitte, the achievement of the university campus, and finally the recent opening of southern Italy's largest accelerator incubator for companies, the Campania New Steel, are beginning to regenerate the local territory in a very substantial way. Many induced activities (such as bars), business support services) are emerging, according to the theoretical model of the amplification coefficient, according to which 1 job as  $k$  workers generates 5 traditional jobs (Moretti, 2013): the transport system is becoming more and more efficient and recently the metropolitan train station was opened and inaugurated by the authorities in front of the university campus; touristic agencies are also entering their routes to visit the east area to discover the oxymoronic “peripheral-center” of the Vesuvius valley innovation.

Finally, in the puzzle of elements on the Vesuvius face of innovation, it should be mentioned that in 2017, the National Innovation Prize, the most important business plan competition in Italy, was held in east Naples, promoted by the Italian Association of University Incubators, PNICube, in partnership with the University of Naples Federico II, and the incubator Campania New Steel.

Founded in 2003 to promote and disseminate entrepreneurial culture in the academic sphere, and to stimulate dialogue between researchers, business and finance, PNI can be accessed by the winners of the 16 regional Start Cups who join the circuit. It is a challenge among the best Italian hi-tech enterprise projects, with a total prize pool of around 1.5 million euro: over 500,000 euro in cash and about 1 million in services offered by the NPICube universities and incubators.

To conclude the analysis, the relationship between a city's creativity and innovation, which animated the previous paragraphs, must be put aside in order to consider real data without reflection or guesswork.

The east area of Naples can be a good projection of a generalized tendency to innovate, of which, for example, the startup number represents a good index.

Startups in Italy are growing year after year. In March 2015 there were 5439 registrations registered in the Register of Companies; at the end of June 2016 there were 5943. There was an increase of 504 registrants in just over a year. In percentage terms, the growth amounts to 9.27% (that of corporations is 1.16%).

Startups with teams mostly composed of young people under the age of 35 count 1,323, or 22.3% of the total. It is a considerable percentage compared with that of youth-dominated capital companies, which amount to only 6.7%.

Not only has there been an increase in the number of companies, but also an increase in the average share capital for startup. From April to early July 2016 this grew by 8.3%, with a total capital of 328.4 million euro (on average 55 thousand euro at startup).

The value of average production keeps growing. Up to 2860 startups with balance sheets produced just over 20,000 euro.

One of the most interesting aspects of these young businesses is, as mentioned above with reference to Moretti's amplification effect, the generation of new jobs: at the end of March 2016, 2356 startups with employees employed 8193 people. Compared to the end of December, there was an increase of 1669 units, i.e. in 3 months each company, on average, took on 3 more employees.

Most, exactly 71.3% produces services for businesses. In particular: 30% produce computer software and consultancy; 14.8% are engaged in research and development; 8.2% provide information services.

Even in the industrial sector, startups are not lacking: they amount to 18.9%. In detail:





Fig. 3. East area of Naples.



Fig. 4. The east area of Naples pre-university settlement.



Fig. 5. The east area of Naples post-university settlement.

3.7% manufacture computers, electronic and optical products;  
 3.4% produce machinery;  
 2.1% deal with electrical appliances.  
 Trade start-ups, however, amount to 4.4%, a lower percentage than

other sectors.

According to the InfoCamere report, Lombardy has won the largest number of innovative startups, 1,285, or 21.6% of the total. Followed by Emilia-Romagna with 703 companies, Lazio with 601, Veneto with 450 and Piedmont with 387.

Milan is the province with the most fertile ground for innovation. Here 874 innovative startups grew, 14% of the total. Followed by Rome with 520 companies, Torino with 291, Naples with 190 and Bologna with 178.

So, here the link with the creative territory of the Vesuvius valley can resume, Campania is not in the standing, but Naples is one of the top places in the city rankings with startup numbers. Perhaps precisely this singularity, with respect to the rest of South Italy, must be regarded in the light of the creative power of the Vesuvius valley! The reader will decide.

## 7. Final remarks and conclusions: innovation is not Jacobin but characterized by plural identity!

The subject dealt with in the present work has in essence attempted to answer an even more general question than the more specific ones analyzed, i.e. if a positive synergy can be found between apparently competing factors that determine an urban plural identity.

The analysis focused on the real case of Naples, Italy, but its corollaries are of general validity according to an inductive process and are extensible to high urban realities that coexist in the same plural identity.

The specific case treated, in fact, also finds evidence in many other cities characterized by a past of strong folkloric tradition and a present oriented to a smart evolution, for example, as in the case of Tallinn in Estonia. It is a hyper-connected city, not only with the network (99% of the population is online), but also with folklore as evidenced by the food product that is the symbol of the entire country, rye bread.

Tallinn, Estonia, is a young city, in perfect balance between tradition and innovation, with the largest number of startups per capita in the world and in which 99% of the transactions are carried out via the internet, where payment via mobile phone and digital signatures is now part of daily life. This is no wonder, in the country that invented Skype. Yet, although this city is projected towards the future, the link with folklore remains strong, witnessed by one of the largest collections of traditional music in the world, with 133,000 songs transcribed and a

unique event represented by the famous music festival called Lulupidu, held every five years in July. The latest 26th edition has gathered more than 10% of the national population, involving 30,000 singers in traditional costumes on stage.

The question that has been asked in this work is found in the different dynamics of urban processes, some slower and others very fast, which can give rise to an inconsistent plural identity.

Among the apparently slower transformations is the great processes of gentrification, in this case also strongly determined by the mechanisms of economic valorization of the city and by the consequent trends of the real estate market, but also by changes in life and living patterns (found, for example, in research on the part of the middle bourgeoisie, of highly qualified urban contexts characterized precisely by entrenched urban identities and by a certain context of social relations).

The problems linked to identity explode precisely in those urban contexts where "identity is lost", where the transformative tensions are stronger and are translated into heated conflicts.

Among the processes that can cause this loss of identity are certainly those characterized by a strong dynamic related to new technology.

Identity is the indefinable a priori outcome of an evolutionary process over time and is the product of a continuous urban narration. Therefore, intrinsically, it does not always remain the same, but by its nature changes. Problems arise when these transformations have disturbing social and cultural effects for the populations that live through them, when these transformations are estranging, hetero-directed and driven exclusively by economic objectives, escaping any critical interpretation.

The shape of the spaces strongly influences the urban identity, but similarly the social and cultural processes shape the spaces. It is a two-way relationship that interprets space as a frame that in any case keeps the two dimensions separate, the spatial and the social dimensions. In the analyzed case of the Naples east suburban area, through the establishment of a university campus and through the establishment of multinational companies such as Apple and Cisco, a forced convergence was operated between the two dimensions creating a short circuit between a social sphere linked exclusively to folklore factors and a field of avant-garde research and technology.

It is not possible to define an identity in a deterministic form, just as it is not possible to associate in a deterministic form an identity defined, and locked in time, to a static urban context. The city is a plural city. It is a plural reality, par excellence. The social and urban identity that is constituted locally is in fact a plurality, the result of the interaction of different subjects and processes, both carriers and producers of different identities.

History, particularly in Naples, has taught this: do not spend (and perhaps defend) the ideals of the lower classes by intellectuals against opponents of such ideals, or at least regarded as such by intellectuals, and oppressors, without involving the masses. It began with the famous historical Neapolitan character named Masaniello, who lost his popular identity, and was followed by the ninety-nine Jacobin martyrs who were carriers (today we would say stakeholders) of the interests of the popular classes without involving them in the intellectual revolution. The results were the restoration of the Bourbons and throwing the masses into the oblivion of powerful games.

So today, if the South will rise, it will be only when the innovation becomes an integral process that will involve the masses, elevating them, while retaining their distinctive features yet as a part of the whole social, economic and political system: that is to say that the shopkeeper on San Gregorio Armeno street of Naples, old craftsman of the shepherds, should not be reduced, only, to an icon of folklore of the city, but must be one of the parts of the system populated by artisans, entrepreneurs, scientists, humanists, politicians and others.

Otherwise there will be a territory that expresses and will express in the future, much potential energy that befits a motionless body, but little kinetic energy of motion.

## References

- Alawadhi, S., Aldama-nalda, A., Chourabi, H., Gil-garcia, J., Leung, S., Mellouli, S., et al. (2012). In H. Scholl, M. Janssen, M. Wimmer, C. Moe, & L. Flak (Eds.). *Building understanding of smart city initiatives*. EGOV. Berlin/Heidelberg: Springer.
- Alcatel-lucent (2011). *Getting smart about smart cities; understanding the market opportunity in the cities of tomorrow*.
- Amato, V. (2010). La città tra competitività e creatività. *Rassegna economica* ISSN 0390-010x.
- Angelidou, M. (2014). Smart city policies: A spatial approach. *Cities*, 41, S3-S11.
- Angelidou, M. (2015). Smart Cities: A conjuncture of four forces. *Cities*, 47, 95-106.
- Ashworth, G. J., & Tunbridge, J. E. (2000). *The tourist-historic city: Retrospect and prospect of managing the heritage city*. Amsterdam: Pergamon, Oxford. EGOV. Berlin/Heidelberg: Springer.
- del Barrio, M. J., Devesa, M., & Herrero, L. C. (2012). Evaluating intangible cultural heritage: The case of cultural festivals. *City, Culture and Society*, 3(4), 235-244.
- Bélissent, J. (2010). *Getting clever about smart cities: New opportunities require new business models. Forrester for vendor strategy professionals*. Forrester.
- Beretta, I. (2018). The social effects of eco-innovations in Italian smart cities. *Cities*, 72(Part A), 115-121.
- Bianchini, F., & CLES (1998). *City centres, city cultures: The role of the arts in the revitalisation of towns and cities*. Manchester: CLES.
- Bianchini, F., & Parkinson, M. (1993). *Cultural policy and urban regeneration: The West European experience*. Manchester: Manchester University Press.
- Bria, F. (2012). New governance models towards an open Internet ecosystem for smart connected European cities and regions. In Open innovation, directorate general for the information society and media. *European commission*, 62-71.
- Cauchi-Santoro, R. (2016). Mapping community identity: Safeguarding the memories of a city's downtown core. *City, Culture and Society*, 7(1), 43-54.
- City, Culture and Society (CCS) - Opening up new horizon of urban studies Editorial, City, Culture and Society, Volume 1, Issue 1, March 2010, Pages 1-2.
- Cominelli, F., & Greffe, X. (2012). Intangible cultural heritage: Safeguarding for creativity. *City, Culture and Society*, 3(4), 245-250.
- Copenhagen cleantech cluster (2012). Danish smart cities: Sustainable living in an urban world. In J. Mortensen, F. J. Rohde, K. R. Kristiansen, M. Kanstrup-clausen, & M. Lubanski (Eds.). *An overview of Danish smart city competencies*.
- Currid, E. (2007). *The Warhol economy: How fashion, art, and music drive New York city*. Princeton, NJ: Princeton University Press, Oxford.
- Currid-Halkett, E., & Scott, A. J. (2013). The geography of celebrity and Glamour: Reflections on economy, culture and desire in the city. *City, Culture and Society*, 4(1), 2-11.
- Davenport, T. H. (1997). Ten principles of knowledge management and four case studies. *Knowledge and Process Management*, 4(3), 187-208.
- Davenport, T. H., & Prusak, L. (1998). *Working knowledge: How organizations manage what they know*. Harvard Business School Press.
- De Falco, S. (2014). Measuring the regional dimension of innovation through an economic model based on rectifying technology audits according to the AICTT-RTA protocol. *Archives of Business Research*, 31-47 ISSN 2054-7404 Vol. 2, No 6 2054-7404.
- De Falco, S. (2015a). Measuring the performance of university technology transfer through the estimation of invention disclosure Life: Focus on urban marginal. *Area Archives of Business Research*, 144-159 ISSN 2054-7404 Vol. 3, No 5.
- De Falco, S. (2015b). The role of geographical proximity from universities and research centers in growing resilience of marginal areas: The case of the East area of Naples. *Territorio della ricerca su insediamenti e ambiente. Rivista internazionale di cultura urbanistica* ESI editore, 8, 2281-4574 n.2 print ISSN 1974-6849 electronic ISSN.
- De Falco, S., & Angrisani, L. (2015). *Innovation and entrepreneurship in smart cities: A S-D Logic's application to the role of research centres in deprived urban areas*. Naplesforum.
- De Falco, S., & Germano, R. (2011). *Il Trasferimento Tecnologico*, Franco Angeli Milano.
- De Falco, S., & Polese, F. (2015). *Innovation and entrepreneurship in smart cities: A S-D Logic's application to the role of research centres in deprived urban areas. ECIE 2015 the 10th European conference on innovation and entrepreneurship* Genoa, Italy.
- De Masi, D. (2016). *Una semplice rivoluzione. Lavoro, ozio, creatività: Nuove rotte per una società smarrita*. Rizzoli, Italy.
- Dirks, S., & Keeling, M. (2009). *A vision of smarter cities. How cities can lead the way into a prosperous and sustainable future*. Somers, New York: IBM Global Business Services.
- Drucker, P. F. (1993). *Post-capitalist society*. New York: Harper Business.
- Edensor, T., Leslie, D., Millington, S., & Rantisi, N. (Eds.). (2010). *Spaces of vernacular creativity*. London: Routledge.
- Florida, R. (2002a). The economic geography of talent. *Annals of the Association of American Geographers*, 92(4), 743-755.
- Florida, R. (2002b). *The rise of the creative class*. Basic Books. New York.
- Florida, R. (2002c). Bohemia and economic geography. *Journal of Economic Geography*, 2(1), 55-71.
- Florida, R. (2003). *Creative class war*. Washington Monthly January/February, 31-7.
- Florida, R. (2004). Response to Edward Glaeser's review of the rise of the creative class. [www.creativeclass.org/acrobat/ResponsetoGlaeser.pdf](http://www.creativeclass.org/acrobat/ResponsetoGlaeser.pdf), Accessed date: 12 December 2017.
- Florida, R. (2005). *Cities and the creative class*. London: Routledge.
- Florida, R. (2007). *The flight of the creative class*. London: HarperCollins Books.
- Florida, R. (2017). *The new urban crisis*. London: Routledge.
- Florida, R., Mellander, C., & Stolarick, K. M. (2008). Inside the black box of regional development. *Journal of Economic Geography*, 8(5), 615-649.
- Florida, R., Mellander, C., & Stolarick, K. M. (2010). Talent, technology and tolerance in Canadian regional development. *Canadian Geographer*, 54(3), 277-304.



- Florida, R., & Tinagli, I. (2004). *Europe in the creative age*. Pittsburgh: Demos/Mellon Software Industry Centre.
- Garner, C., & Dornan, A. (2011). How can knowledge cities become smart? In T. Yigitcanlar, & A. C. Fachinelli (Eds.). *The 4th knowledge cities world summit, 26–27 October 2011*. Brazil: Bento Gonçalves.
- Harvey, D. (1989). From managerialism to entrepreneurialism: The transformation in urban governance in late capitalism. *Geografiska Annaler. Series B, Human Geography*, 71(1), 3–17.
- Hutton, T. A. (2004). The new economy of the inner city. *Cities*, 21, 89–108.
- Kim-Maloney, A., Kim, A., & Tereschenko, A. (2014). Informational field of proper names in mythology and folklore. *Procedia - Social and Behavioral Sciences*, 154, 92–98.
- Kong, L., Gibson, C., Khoo, L.-M., & Semple, A.-L. (2006). Knowledges of the creative economy: A geography of diffusion and adaptation in Asia. *Asia Pacific Viewpoint*, 47(2), 173–194.
- Kong, L., & O'Connor, J. (Eds.). (2009). *Creative economies, creative cities: Asian-European perspectives*. New York: Springer Media.
- Kresl, P. K., & Singh, B. (1999). Competitiveness and the urban economy: Twenty-four large US metropolitan areas. *Urban Studies*, Vol. 36, 1017–1027 No. 5/6, review issue: competitive cities.
- Krugman, P. (1994). *Fluctuations, instability, and agglomeration*. NBER working papers 4616 National Bureau of Economic Research, Inc.
- Landry, C. (2000). *The creative city*. London: Earthscan.
- Landry, C. (2006). *The art of city-making*. London: Earthscan.
- Law, C. M. (1992). Urban tourism and its contribution to economic regeneration. *Urban Studies*, 29, 599–618.
- Lind, D. (2012). Information and communications technologies creating livable, equitable, sustainable cities. In L. Starke (Ed.). *State of the world 2012: Moving toward sustainable prosperity*. Island Press/Center for Resource Economics.
- Lloyd, R. D. (2006). *Neo-bohemia: Art and commerce in the postindustrial city*. New York, NY, London: Routledge.
- Mazzeo, G. (2009). Naples. *Cities*, 26(2009), 363–376.
- Molotch, H. L. (1996). LA as design product: How art works in a regional economy. In A. J. Scott, & E. Soja (Eds.). *The city: Los Angeles and urban theory at the end of the twentieth century* (pp. 225–275). Berkeley: University of California Press.
- Moretti, E. (2013). La nuova geografia del lavoro. *Mondadori*, 15–16.
- O'Connor, J. (2005). Creative exports. *International Journal of Cultural Policy*, 11(1), 45–60.
- O'Connor, J., & Xin, G. (2006). A new modernity? The arrival of 'creative industries' in China. *International Journal of Cultural Studies*, 9(3), 271–283.
- Palmentieri, S. (2017). Innovazione e ridisegno degli spazi urbani: Dai "vuoti" ai poli di sviluppo. L'Area est di Napoli. *Innovazione, competitività e sviluppo nei territori dell'Unione Europea A.A. V.V. A cura di Stefano De Falco, Edicampus Rome* (pp. 109–122).
- Paskaleva, K. A. (2011). The smart city: A nexus for open innovation? *Intelligent Buildings International*, 3, 153–171.
- Peck, J. E. (2005). Struggling with the creative class. *International Journal of Urban and Regional Research*, 29(4), 740–770.
- Peck, J. (2011). Global policy models, globalizing poverty management: international convergence or fast-policy integration? *Geography Compass*, 5(4), 165–181.
- Pentikousis, K., Zhu, D., & Wang, H. (2011). Network infrastructure at the crossroads: The emergence of smart cities. *The 15<sup>th</sup> international conference on intelligence in next generation networks (ICIN), 4–7 October 2011, Berlin*.
- Pike research (2011). Smart cities; intelligent information and communications technology infrastructure in the government, buildings, transport, and utility domains (research report) [Online]. Pike Research LLC <http://www.pikeresearch.com/newsroom/smart-city-initiatives-can-improve-livingstandards-reduce-carbon-emissions>.
- Polanyi, M. (1962). *Personal knowledge, routledge edition*.
- Pratt, A. C. (2008a). Creative cities: The cultural industries and the creative class. *Geografiska Annaler Series B-Human Geography*, 90B(2), 107–117.
- Pratt, A. C. (2008b). Innovation and creativity. In J. R. Short, P. Hubbard, & T. Hall (Eds.). *The sage companion to the city* (pp. 266–297). London: Sage.
- Pratt, A. C. (2010). Creative cities: Tensions within and between social, cultural and economic development: A critical reading of the UK experience. *City, Culture and Society*, 1(1), 13–20.
- Pratt, A. C., & Jeffcutt, P. (2009). *Creativity, innovation and the cultural economy*. London: Routledge.
- Ratti, C., & Townsend, A. (2011). *Harnessing residents' electronic devices will yield truly smart cities*. <http://www.scientificamerican.com/article.cfm?id=thesocial-nexus>.
- Richards, G. (1996). *Cultural tourism in Europe*. Wallingford, UK: CAB International.
- Robinson, R. (2012). *Ten ways to pay for a smarter city*. <http://theurbantechnologist.com/2012/08/29/ten-ways-to-pay-for-a-smarter-city-part-one>.
- Sassen, S. (2011). *Talking back to your intelligent city* [Online]. McKinsey Publishing <http://whatmatters.mckinseydigital.com/cities/talking-back-to-your-intelligent-city>.
- Scott, A. J. (2001a). Globalization and the rise of city-regions. *European Planning Studies*, 9, 813–827 N. 7.
- Scott, A. J. (2001b). Capitalism, cities, and the production of symbolic forms. *Transactions of the Institute of British Geographers*, 26, 11–23.
- Scott, A. J. (2004). Cultural products industries and urban economic development prospects for growth and market contestation in global context. *Urban Affairs Review*, 39 N. 4, pp. 461–190.
- Scott, A. J. (2006). Creative cities: Conceptual issues and policy questions. *Journal of Urban Affairs*, 28(1), 1–17.
- Scott, A. (2007). Capitalism and urbanization in a new key? The cognitive-cultural dimension. *Social Forces*, 85(4), 1465–1482.
- Shearmur, R. (2012). Are cities the font of innovation? A critical review of the literature on cities and innovation. *Cities*, 29(Supplement 2), s9–s18.
- The Australian Geographer, Creativity in 'Peripheral' places: Redefining the creative industries, Issue 1, 2010 pages 1-158.
- Townsend, A., Maguire, R., Liebhold, M., & Crawford, M. (2010). *The future of cities, information, and inclusion: A planet of civic laboratories*. Institute for the Future.
- Urban Studies, Special issue: Trajectories of the new economy: Regeneration and dislocation in the inner city, Issue 5-6, May 2009, pp. 987-1269.
- Vanolo, A. (2013). Smart city, condotta e governo della città. In M. Santangelo, S. Aru, & A. Pollio (Eds.). (a cura di), *'Smart city. Ibridazioni, innovazioni, e inerzie nelle città contemporanee'*. Roma: Carocci.
- Vicari Haddock, S. (2004). *La città contemporanea*. Bologna: Il Mulino.
- Wood, P., & Landry, C. (2007). *The intercultural city: Planning for diversity advantage*. London, Sterling, VA: Earthscan.
- Walravens, N. (2011). The city as a platform. *The 15th international conference on intelligence in next generation networks (ICIN), 4–7 October 2011, Berlin*.