

TeMA

Journal of
Land Use, Mobility and Environment

There are a number of different future-city visions being developed around the world at the moment: one of them is Smart Cities: ICT and big data availability may contribute to better understand and plan the city, improving efficiency, equity and quality of life. But these visions of utopia need an urgent reality check: this is one of the future challenges that Smart Cities have to face.

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PLANNING FOR SMART CITIES
DEALING WITH NEW URBAN CHALLENGES

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CENTRO DIREZIONALE OF NAPLES A "SMART" CONCEPT

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ABSTRACT

The topic of urban planning linked to the growth of smart cities is now quite common also in the urban-sociological debate. Recent studies (Besselaar, Koizumi, 2005; Fistola, 2010) identify the main focus of the smart city no longer exclusively in the strategic role played by I.C.T. infrastructures, but above all in the factors enabling urban growth, defined as the ability to stimulate innovative urban developments, along with an increasing attention to the environment, eco-design, improved living levels, as well as the "bio-socio-environmental capital" (Corbisiero, 2013). Based on this theoretical background, the paper highlights the results of a research conducted in Naples on the empirical case of the "Centro Direzionale". It is an intervention of urban design of considerable impact on the city. The design and construction of the Centro Direzionale of Naples is, in fact, an archetype of the smart city; a primal testing of "urban intelligence" in terms of transport systems, infrastructure, logistics, systems for energy efficiency and technology. More generally, a good practice of city administration and of exploitation of strategic spatial planning.

KEYWORDS:

Urban Planning; Smart City; Centro Direzionale; Bio-socio-environmental Capital

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那不勒斯迪雷佐纳莱中心

“智能”概念

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摘要

如今，城市规划与智能城市发展相关的主题在城市社会辩论中也习以为常。近期的研究表明（Besselaar, Koizumi, 2005；Fistola, 2010），智能城市的重点不再局限于ICT基础设施战略角色的扮演，最重要的是促进城市经济增长，即刺激创新城市发展的能力，同时越来越注重环境问题、生态设计、改善生活水平、以及“生物-社会-环境资本”问题（Corbisiero, 2013）。基于这一理论背景，本文重点突出了那不勒斯有关“迪雷佐纳莱中心”实证案例的研究结果。这是一种对城市设计对所在城市影响的干预。事实上，那不勒斯迪雷佐纳莱中心的设计和构造，即智能城市的原型；是对“智能城市”在运输系统、基础设施、物流、能源效率和技术系统的基础测试。普遍而言，是战略空间规划和城市管理的一种有效实践。

关键词

城市规划、智能城市、迪雷佐纳莱中心

1 INTRODUCTION

In many cities in Europe, between the sixties and the nineties, new urban planning procedures were experimented, designated as "strategic territorial planning" (Martinelli, 2005). They belong to the trend usually called participatory planning, where the "centralization of authority" is removed and decisions are not imposed "from above" (Healey, 1997).

The objectives of the strategic planning can be analyzed from a dual perspective. On the one hand there are the specific goals of the plan; they are usually structured according to the specificities of the area and of possible future scenarios: reconversion, relaunch, internationalization, recovery, innovation, decongestion, quality of life, etc... From another point of view, the strategic plan should be understood as a partly or mainly social process (Fera, 2005).

Over the years the way cities are planned has been changing and planning has taken on new dimensions. In fact, planning is oriented toward the realization of smart cities. The principle of environmental sustainability, also related to the natural environment, is given a stronger emphasis and a broader meaning. Within this principle, the "cultural environment" is considered as an element of the planning action and as a resource to be protected and to be used creatively to meet the needs of life quality as well as of cultural and socio-economic development. The cultural environment is thus considered as a category including both the preservation of landscape and nature and the protection and enhancement of cultural heritage as well as the promotion and development of the human activities established in the territory. The goal is to create a reference paradigm for the development of the territory not only in financial terms, but also in terms of creativity and participation in cultural, social and political development (Carta, 1996).

These new models of urban planning should be supported by such new technologies that can "help" the cities to be "smart", turning them into "intelligence laboratories" capable of finding clever and ingenious solutions (Granelli, 2012).

Another central theme in planning in recent years concerns the use of the territory, the questions about investments to make, the use of public resources and governance processes. The concept of "smart planning" is based on the dimensions of "smart economy", "smart environment", "smart people", "smart mobility", "smart living", "smart governance"... (Villa, 2011).

The first signs of change are observed between the seventies and the nineties, when in several European cities - Paris, Liverpool, Copenhagen, Rome, Milan, Naples... - attention is focused on the question of re-distribution of tertiary activities in the urban setting. At the same time, the redevelopment of city centers, saturated by the concentration of activities related to trade and services, was discussed.

The planning of the business districts (it. Centri Direzionali), in this scenario, is viewed by the international city-planning culture, and the Italian one in particular, as "the keystone of the new city: heart of urban renewal, but also a mediating element between planning and architecture" (Tafuri, 1964, p.27). The principle guiding the design of business districts is to create tertiary-oriented neighborhoods, designed mainly in order to place offices and political-administrative, economic and financial activities in a specific part of the city. The aim is to define a new dimension of urban space and the relative design methods.

In this regard, the business districts foreshadow the new principles of city planning in recent years, when cities become home to the "new challenges" that mankind is called to face. The achievement of environmental sustainability, social and cultural integration of billions of people, economic development, new forms of welfare state are just some of the goals which urban planning focuses on nowadays.

Although "smart planning" is oriented towards the development of I.C.T. (Information Communication Technology) infrastructures, it can also be viewed as a trigger of urban growth and innovative evolution. That's

a reason why “smart planning” takes care of environment, eco-design, living quality and in general of human and social capital (education, culture, etc.).

On the basis of these assumptions, this paper presents the results of an empirical study, whose object is the Centro Direzionale of Naples (CDN) as a case study. This district, especially in its ongoing extension or “step two”, recalls the planning logic of smart cities.

Although smart cities are based both on I.C.T. and human and social capital (De Luca, 2012), the CDN concept insists mainly on the latter and focuses on eco-design.

CDN actually appears as an institutional and business center as well as a residential area, planned after Jacobs' concept (1961) of “planning for vitality”, that is of a city based on a “smart capacity” to mix urban and social types. The center hosts, in a wise distribution of spaces, the Courts, the region's administration, universities and other institutions. The planners also left much space to private uses: trade, shops, “communication” towers (Wind and Telecom Italia) projecting towards the sky as vertical silos. Cdn also hosts many inhabitants, mainly middle-class and employees.

At the time when CDN was planned, the connection of the smart city concept to I.C.T. was just being conceived, but its planning includes the core idea to use the new communication technologies to link administration and urban infrastructures. The CDN concept does indeed include the innovative and sustainable criteria for a smart city in its structural and social planning.

The reasons for starting the research arise from the will to understand the impact of this operation, notably in relation to the socio-morphological context in which it is inserted. It is, in fact, an intervention of urban, social and economic planning of major importance for the reorganization of the metropolitan system, which produces inevitable effects on the local context.

The research aims to reconstruct the project's history and the developments leading to the creation of the district, in order to describe the current state, to identify the elements of support and contrast in the planning phase and thus to highlight the peculiarities and the criticalities of this experience.

With respect to what has been already built we will try to answer two main questions: what planning principles was the project stage based on? How does the district appear today?

As for future prospects, the questions addressed are: what scenarios should be assumed in view of the completion of the Centro Direzionale expected in the coming years? Can we speak of a “smart Centro Direzionale”? Will it represent a starting point to define the city of Naples as a smart city?

2 SMART PLANNING

Among the components of the economic and environmental crisis that struck the western world in recent years, some aspects concern the “quality of the development” (Vianello, 2011).

It is apparent that this crisis is imposing patterns of production, consumption and life quite different from those so far known, and urban areas represent the scenario in which these transformations are being tested. The development process which starts from the Second World War, and lasted until today through “new forms of development”, aims to ensure the welfare of the people. In this direction the technologies I.C.T. are oriented, ie the tools that support citizens and authorities in the processes of government and participation in an innovative way.

The information and communication technologies began to spread in the sixties. In those years techniques of “contamination” between IT and telecommunications were first tested. These two sectors had hitherto progressed independently of each other because the telecommunications industry was mostly based on an analog technology. In the seventies and eighties, the spread of personal computers starts a digital revolution

that applies to the audio-visual field. Only in the nineties, thanks to the web, a path is completed that determines the multimediality and the interconnection; millions of people are able to share information through audio-visual devices to the point of encouraging dialogue and communication. In recent years, several local authorities in Europe decide to start using these tools experimenting with new models of urban planning, managing new technologies in support of participatory processes to an extent which they had never reached before.

But who governs these processes in a globalized world? In the social imaginary it is the sum of the national states and international organizations (eg the UN).

In reality, these competitive and aggregation processes occur between the cities.

The competition for attracting manufacturing facilities and generating knowledge and learning takes place between the urban areas. The protection guaranteed by the welfare systems, the quality of life, the environmental sustainability are issues that are being discussed more and more at a city level.

Today, when it comes to development of the city reference is made to specific development parameters including "economic strength", "physical capital", "financial maturity", "institutional effectiveness", "human capital", "environment and natural risk", etc... Therefore, in order to be competitive and to grow in an intelligent way it is necessary to fulfill the above criteria through synergy, putting aside particularism: to grow avoiding to "consume the territory" by generating environmental unsustainability.

Thus, in the design of urban environments one should not waste environmental resources, as space is an asset which can not be reproduced. The logic of the plan should be "smart", subject to the capacity to attract capital, to develop specific economic activities and stimulate the establishment of valuable human resources in the area. To be competitive, cities need to become "cities dreaming the future and practicing innovation" (*Ibid.*, p. 16) Following these principles, planning should foster social inclusion and the promotion of innovative activities. The cities must be first and foremost "able to detect and gather information through a system of sensors, from the most innovative, which perceive the characteristics of the environment, to the more traditional" (Farioli, 2011).

The value of these sensors plunged into the city is tested to the extent in which citizens are enabled to interconnect all the information, to make it interact in the network and then take it to the "intelligence engine". The "intelligence engine" has as its center the local administration, which generates the government and the planning of an urban system.

Being an intelligence engine means to gather this information and integrate it through systems of data analysis and governance (*Ibid.*,2011). The organization and the government of cities is undergoing profound changes and therefore also "smart policies" are needed whose scope has not yet been completely understood. The speed and pervasiveness of innovation of I.T. technologies that "change" the knowledge, transforming it into value added, undermines the strategic planning of urban development (Fistola, 2013).

3 NEW MODELS OF THE CITY: THE SMART CITIES

In recent years, city planning seems entirely oriented toward the horizon of smart cities. This is mainly due to a strong thrust of the European Union which has allocated substantial funds as an "investment" towards urban innovation and formalization of the "smart city model". It is difficult to achieve a clear definition of this concept that describes an intervention on the city proposing definitions only partially convergent, but often not related to each other. In the socio-economic field, for example, it is fundamentally related to the existence of I.C.T. districts with a high degree of employee training and capabilities. The idea of smart city also refers, however, to the use by the public administration of the new communication channels to interact with citizens, by focusing

on e-governance and e-democracy. Very often it signals a significant use of information technologies in the daily life of a city in terms of transport systems, infrastructure, logistics and systems for energy efficiency. In other cases, the term smart city will emphasize softer factors of urban development such as good practices of participation, high levels of security and enhancement of cultural heritage.

In the scientific community the concept of smart city also evokes aspects of quality of life, paying more attention to the aspects of urban life such as housing, or the development of sustainable energy platforms...

The European institutions, on the other hand, mainly connect this concept with the fight against pollution, and in general to the "Europe 2020" strategy. In this respect, in Europe there is a growing interest in the themes of "smartness" so as to induce the EU to make them a central part of its financial planning.

The tendency of the European Union is to interpret "smartness" from the point of view of the environment and energy, and this is confirmed by some of the main instruments of this strategy: "The Strategic Plan for Energy Technologies" (European Commission, 2007) and "The Technology Road Map" (European Commission, 2009) where the reference to the smart city, and the budget allocated to it, appear clearly.

Therefore, it is possible to say that a smart city is a city where all the resources become accessible thanks to an efficient online network that allows the citizen and the municipality to dialogue (Fistola, La Rocca, 2001).

The term "smart" implies being able to get the resolution of a problem "operationally", indicating what may be the "tools" to be used, designed for this purpose. In other words, choosing the reference models and "operating" through specific "devices".

The smart city is the place where the planner effectively uses available structures, spaces and technologies or invents new ones.

The smart city can therefore represent a physical space in which a widespread and inclusive technology supports the growth of social capital and enables the development of functional systems that virtualize activities (*Ibid.*,2001). This saves space and time and helps to raise the quality of living in the urban system. This is the theoretical basis of the case study presented here.

4 THE BUSINESS CENTRE AS THE ARCHETYPE OF SMART CITY. THE CASE OF NAPLES' CENTRO DIREZIONALE

In the full development of strategic planning, in the period between the sixties and the nineties, in Europe and especially in Italy, several so-called "business centers" were created.

One of the earliest in Europe was the "Secteur de la Défense" in Paris. In Italy, a first example is in Rome with EUR, Rome Universal Exhibition, designed as a structure for housing exhibitions, which has become over the years a true Centro Direzionale. Another example is represented by the Centro Direzionale of Milan, who was meant as a new "center", not only for Milan and its hinterland, but for the entire Lombardy Region.

Its goal was to create a new administrative and financial core, easily accessible because close to the railway stations and major highways.

In those years, the debate on the "city-region" started (city region) (Scott, 2001), considering the possibility of vast territories with the function of "urban joints" between the cities of the same region. The complexification of the services of the tertiary sector, the transformation and the uncertainty of industrial processes, the importance of rapid economic transactions, are factors that lead to a reconfiguration of the urban context in "multiple administrative districts" (Corbisiero, 2013), rooted in second-generation metropolises (Martinotti, 1999, p. 56). The birth of the Business centers not only responds in full to the new Italian territorial morphology - whose structure is defined by the complementarity of functions between centers and peripheries of the metropolitan complexes - but promises to be a platform for "smart urban development". In fact, the business

center is defined as an "architectural element, able to test critically the growth potential of whole parts of cities" (Ferrari, 2005, p. 54). It must, in short, take on the role of financial-economic pivot of big cities, but at the same time of a "smart district" such as to represent the symbol of territorial innovation. So business centers should represent places where the planner "exploits" the space and technological innovations for the benefit of the area.

While following the basic principles of the construction of the Business centers in Europe, the CDN seems to overcome the limitations that characterize the centers of Milan and Rome assuming that "elastic form" that would revitalize the entire metropolitan area and connect it with satellite towns (Cavola, Vicari, 2000).

It is not possible to establish with certainty a beginning and an end of its story, for we can still consider it as a "work in progress".

The debate on the establishment of the CDN dates from the early sixties. In 1964 the Commission for the New General Plan of Naples, conceived in response to the nefarious speculation of the post-war period, reflects the initiative of Mededil S.p.a. (Mediterranea Construction Company) which is assigned the task of "promoting urban renewal and the creation of new districts in the city of Naples" (Cerami, 1994). An area suitable for the establishment of a "Centro Direzionale" is selected in Poggioreale, an industrial neighborhood in the east-central part of the city (fig. 1).



Fig. 1 Site boundaries, undergoing executive urban plan

The urban project, which covers an area of about 110 hectares near the Central Station, divides the district into two macrozones put to different use: one for the buildings of the tertiary sector (courts,

Local authorities, public offices) and another intended for residential use. Its location was meant to favor the decongestion of the entire coastal line. The construction of the new CDN was also a response to the speculation that plagued Naples in the fifties. The first project was entrusted to a team of Neapolitan architects, coordinated by Giulio De Luca's, in the early seventies (*Ibid.*, 1994).

In 1980, due to ongoing disagreements between architect De Luca's team and the city administration, the implementation of the complex is entrusted to a starchitect, the Japanese Kenzo Tange, an emblematic figure in the international scene, in the hope of a "touristic-culturalistic turning point" of the project.

The choice of Tange is mainly political and is the expression of a radical change, a genuine technological innovation. The basic concept of Tange's project is to obtain a design concept that offers the city a of "multifunctional complex", competitive on several fronts: urban, economic, financial, cultural. The attention to the "cultural" dimension is just one of the most interesting and innovative of "Tange's project", one that can be called the "humanization of urban spaces" (*Ibid.*).

The Japanese designer reads the urban space as an agora in which the constituent element is the human relationship: even the space in front of a building must be characterized to encourage the phenomena of social life, allowing people to move freely, away from vehicles.

The project somehow anticipates the basic principles of urban planning as concerns innovation and the awareness of environmental, economic and social-relational factors. The Japanese architect wants to "put the man and not the machine to the center of the city scene... Make the Centro Direzionale as a place for socializing, integrated with the territory" (Tange, 1995). This produces a number of aspects that characterize the center as a real prototype of the smart city.

The designer suggests an urban structure articulated around three symmetrical "Axes", along which the whole complex is spread: 1 "Green Axes", in east-west direction, about 900 meters long and 70 wide, is designed exclusively for pedestrian traffic, below which is a two-story parking lot with two driveways around; 2 "Public Axes", with two squares, where public buildings and advanced services will be placed; 3 "Sport Axes", dedicated to green spaces and sport and *leisure* (fig. 2).



Fig. 2. Diagram map of Business District according to Kenzo Tange

Within a "smart logic", the idea of a public transport system to connect CDN to the city center is also very relevant: "I believe that the completion of the transport system will harmonize CDN and the city center, certainly favoring the urban development" (*Ibid.*, 1995).

Tange's basic concept was to achieve a unitary project enriching the city with a multi-function complex linked in innovative ways to the city's historic area and the surrounding region.

Since the nineties, the presence of an "advanced tertiary" is strengthened, which provides a further boost to investment in the area by various public and private entities.

Below we discuss some results obtained from the survey conducted in the field and showing what it looks like today at CDN.

5 AN "EMPTY BOX"?

The research is carried out in quali-quantitative approach, combining ethnographic observation, interviews with qualified and questionnaires submitted to city users and residents. The interviews were conducted following different tracks (history of the CDN, mobility, security, future planning), and according to them a number of specific questions have been asked. The topics were placed in non-rigid order, a form of "targeted" interview, leaving the interviewee the opportunity to manage the conversation.

The semi-structured interview revealed the point of view of several qualified witnesses. Among our tools we also used a semi-structured questionnaire with mainly closed questions, to be administered on a non-probabilistic sample of fifty city users. The questionnaire focused on socialization, security and accessibility. The decision to include closed- and open-ended questions is to provide greater uniformity to the information collected. The former allowed a univariate analysis while open-ended responses produced richer meanings and nuances.

The questionnaire was especially useful for the emergence of the perception of residents and city users compared to the goals of planning and of "Tange's project".

The analysis of the security issue was particularly interesting because the perception of the subjects who live a public place is considered of fundamental importance for the reliability of the same place and for the improvement of quality of life.

5.1 A SMART IDEA, BUT NOT TOO SMART AFTER ALL

Strolling down the CDN in the morning hours, you will come across a fast-paced flow of people moving in every direction, workers, visitors, athletes that populate the district, as it happens in global cities (Sassen, 1997).

The CDN, as interpreted by Tange, has among its functions to harmonize the use of space with the times of human connection. However, over the course of two decades, the emphasis on CDN, as a device for socializing and binding the administrative function with the social and cultural life, has been lost. The research shows that the spaces of the CDN do not fulfill the relational functions assumed, but correspond to a plurality of actors in motion along trajectories and interests not necessarily compatible, and all this does not go beyond office hours (fig. 3).

"In addition to a few bars and restaurants, here there are no more shops; because everything closes early. On Saturdays and Sundays all is closed, there is no business. Once the offices are closed, the Centro Direzionale is dead". (T.Q. 11, man, porter).



Fig. 3 A coffee shop at Centro Direzionale, Sunday morning

The predominant category of workers are the operators of the service sector, which flock to the area in a specific time slot, mainly early in the morning (fig. 4).

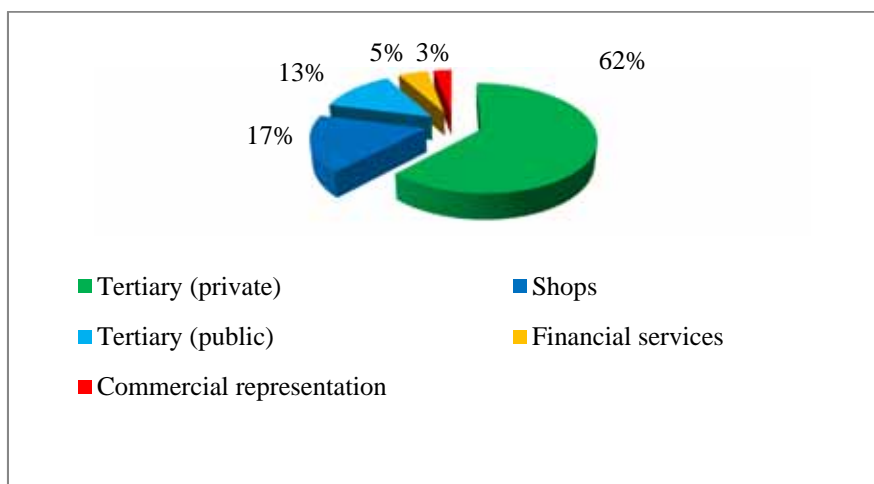


Fig. 4 Economic sectors in the Business District. Macro-categories

The majority of the commercial activities of the Centre follows those same working hours, since the number of potential buyers is drastically reduced after 6 pm. This has an impact on local residents

and, more specifically, on the residents of the Centro who work outside the area. In fact, coming home from work late in the afternoon, residents can not take advantage of the (few) shops that exist:

"When I come home from work at seven in the evening, I have to go shopping in Vasto, because here in the Centro, after six they are all closed" (I. 8, female, resident CDN).

The CDN has turned into a complex with a tertiary connotation, separated from the historic city and the rest of the territory. This problem is increased by an inefficiency of the transport system that serves the area badly. For this reason, users who need to reach the Centro choose mostly private forms of transport rather than opting for the "sustainable choice" of rail transport (Metro-Circumvesuviana), currently the only option that connects the CDN and other parts of the city (fig. 5).

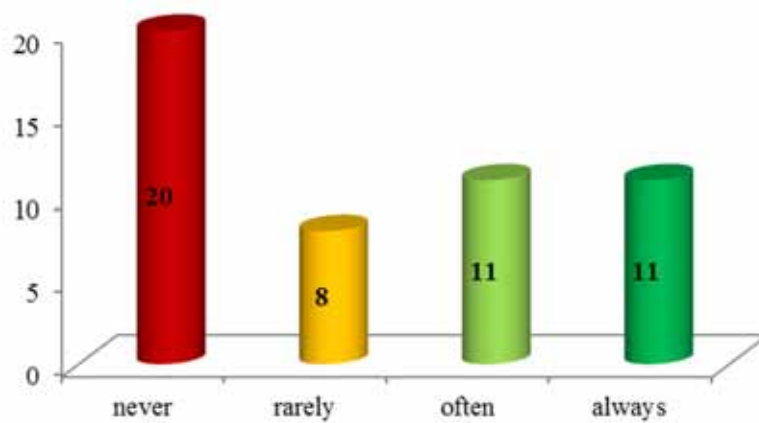


Fig. 5 Use of Public transport (from city center to CDN) - time frequency

The Centre is experienced by different categories of users that alternate in space and time, interact primarily through relationships among peer groups: workers, residents, foreigners, sportsmen, homosexuals. In this interweaving the behavior of social actors and the manner of their relationships are defined (Mela, Belloni, Davico, 2000). All this determines the presence of individuals not always definable as a group; rather they are "situational urban formations", in which relationships are random and unpredictable; situations marked by "civil inattention" of subjects (Goffman, 1971). Through the analysis of some dimensions - socialization, accessibility, security - we have identified the "relational" features and the meanings given to the spaces at CDN. In particular, they have been called "not-homogeneous spaces":

"...Because here you see the building in perfect condition, but you also see the floor completely disconnected or other buildings in a state of neglect". (I. 8, woman, city user).

And "segregation spaces" (fig. 6):

"...Because you see only employees or professionals in suits who eat at the tables of pizzerias and taverns for lunch..." (I. 10 man, city user)

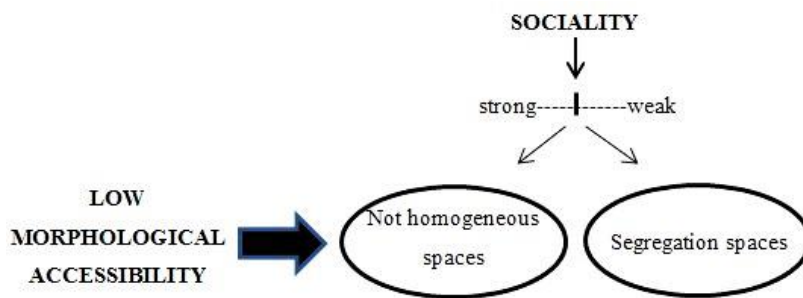


Fig. 6 Not-homogeneous and segregation spaces

In fact, the spaces of the CDN express the lack of strong relationships, and produce only transient relationships between people who meet by chance: one primary use is ineffective as a creator of urban diversity; but a primary use that is combined with another primary use is equally ineffective if they bring in the streets an alternating flow of users in the same hours (Jacobs, 1961; Piselli, 2009). In addition, the categories of persons present are distinct and do not appear to interact with each other. The residents are physically located in an area not too far from the offices, but spatially isolated, and live the spaces they inhabit even after 6:00 pm. Employees pass through the Centro in the morning, meet with colleagues in their offices, or at most in takeaways during the lunch break. The sportsmen perform their exercises when the Centro is preferably semi-desert in the late afternoon or Sunday morning very early (fig. 7).



Fig. 7 Mapping of the Centro Direzionale

* Red rimmed are residential buildings. There is a big distance to other buildings

Some groups of foreigners use the CDN as a meeting place, mostly on Sunday mornings. Therefore many categories of visitors, who take turns in space and time, but mainly by interacting with those who belong to the same “group”. It may be useful to borrow the concept, developed in the context of urban sociology, of “refunctionalization of public space” (Mela, 1996, p. 195). This is what happens in some blocks of the CDN, where the streets and squares lose, for city users, any experiential meaning. The same streets and squares regain their original meaning of “space for humans” when they are frequented by immigrants or by homosexuals (fig. 8).



Fig. 8 A wall in the underground car parks. Now used as a board for private announcements.

The CDN is, therefore, the expression of a public space lived by a plurality of actors which are not connected to each other, pursuing divergent trajectories and targets, often placing their own points of interest and attraction elsewhere. A place of transition and exchange. The speed with which the different categories of users interface, the poor accessibility of the structure and a low degree of perceived safety are all factors that do not enhance the social and territorial capital of the district. In this respect, without pretending to draw a systematic framework of the state of the question, we want to point out some lines of reflection starting from the perception of safety as reported by users. As is clear from the questionnaires and from the information gathered, there is a clear perception of a safety problem. For respondents security is perceived as problematic; A total of 31 of 50 users say they feel unsure: of these, 13 feel very unsure, and 18 feel rather sure. This has consequences for the sense of belonging of the majority of users who identify themselves less and less with such a structure judged as unsafe. In fact, among the 18 subjects who feel rather sure, 17 assess the structure between insufficient and mediocre and adding another 11 expressing the same assessment and feel unsure, a total of 28 users feel not to be safe in relation to the limits of the structures (building condition) (fig. 9).

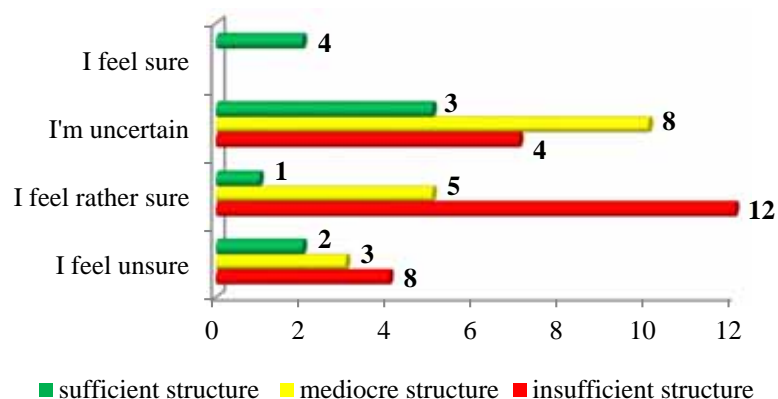


Fig. 9 Building condition Evaluation-security degree

The CDN is designed as a neighborhood divided along levels, axes, towers, etc.; the separation of functions is restored in the large partition of space and time: the urban material on one side and, on the other hand, work time, leisure time, public and private time.

From its large openings to the tall towers CDN includes all the reasons why it was planned: services, administration, communication and leisure.

A social-urban synthesis of post-industrial tertiarisation. The morphology is now a place of instability, heterogeneity, fragmentation and discontinued transformation, does not have a discernible structure as an organic whole, but is an expression of an "unusual" appropriation of space.

The porticoes around the buildings also represent a linkage between public and private life, favoring the socialization between city users.

As to its structural aspects, CDN is planned to minimize the impact on environment. Several buildings are realized in fact with eco-compatible materials such as *curtain wall*, a special anti-seismic structure resistant to wind gusts and fire. Surveillance and maintenance avail themselves of small electric cars and motorbikes.

As mentioned above, one of the bases of "smart planning" is the presence of social-relational capital in urban structures. Under this regard CDN represents an unusual kind of neighborhood, where the "smart idea" can be compared to an agora where urban intelligence is made up of human relations.

The main idea of this forward-looking insula is to "offer the people of Naples a comfortable, healthy environment, with a high social and cultural value" (*Ibid.*).

A business center anticipating the smart city concept inverting its issues, by putting people first and then technology in the center of the urban stage. In this regard CDN attracts intensely some social groups: immigrants and homosexuals.

Paradoxically, the separation of CDN from the city center and the empty streets after dark favors a "spontaneous takeover of space" (*Ibid.*, 2000).

A mix of different styles and uses of the space defining behaviors, goals and stories of these groups, who never even meet along their paths in space and time.

CDN spaces represent important points of reference for the sociality of either group. Immigrants use squares within it as gathering places if the different ethnic groups. Places and paths of CDN mirror different kinds of social relations. Each part of it recalls a particular sociality or maybe vice versa, it's the particular sociality which symbolically connotes a particular area.

The ethnic connotation is assigned to each square by the immigrant groups, youths, adults and elderly who gather especially in their free-time (Sunday mornings and Thursday afternoons) to meet, chat, eat, relax and enjoy the free spaces. Away from the mixed spaces where their daily activities take place in the city, some immigrant groups found in CDN an urban place to express themselves more freely.

Although it is just a make-shift solution, practiced within a "spare" area, it allows them to live their own social practices and their relationships with no outer interference.

Gay men, on the contrary, chose peripheral and underground areas of the complex, which assume for them the symbolic value of masculine homo-eroticism. Walking or standing in their own CDN paths male homosexuals enjoy all advantages of privacy and tolerance, guaranteed by the isolation and the anonymity of the center. Many streets and squares of CDN perform therefore for city users a function totally independent from its original business-aimed meaning and regain a more universal utilization as a place for human relationships when they are crowded with immigrants or gays.

CDN was certainly no perfect example for a sustainable planning, but it sure was a pioneering case of "smart district" in terms of "bio-socio-environmental capital" (*Ibid.*, 2013).

6 A SMART PERSPECTIVE

With the approval of the new Master Plan of Naples in 2004, the debate was resumed on urban planning with the focus on the principles of protection of the physical and cultural identity of the area, the restoration of the old city center and enhancement of green areas.

The aim is to redevelop brownfield sites into new settlements characterized by sustainable urban parks. At the heart of the new programming is the redevelopment of the suburbs, the historical centers, the improvement of services in the neighborhoods, the transformation of the mobility system reorganized around a modern rail network. So there is a trend towards that “sustainable use” of the city that provides for a “zero footprint” on the territory.

In this new frame of urban planning in Naples, an opportunity is represented by “Agora 6”, a project implemented since 2007, which seems potentially capable of enhancing a “bio-socio-environmental” capital (*Ibid.*, 2013) as a resource to revitalize the area and starting point for planning into the future in accordance with the “smart logic” of planning.

The resolutions approved by the City Council and the official acts of the Company “Agora 6” S.p.a. reveal that the project involves an area of 50 acres and plans to build public and private works intended to modify the urban context, providing it with modern facilities and a road system that integrates it with the rest of the city. Metronapoli S.p.a. will also build a subway line between the district and the central station in Piazza Garibaldi, where it will connect with all lines of rail transport in the city (fig. 10).

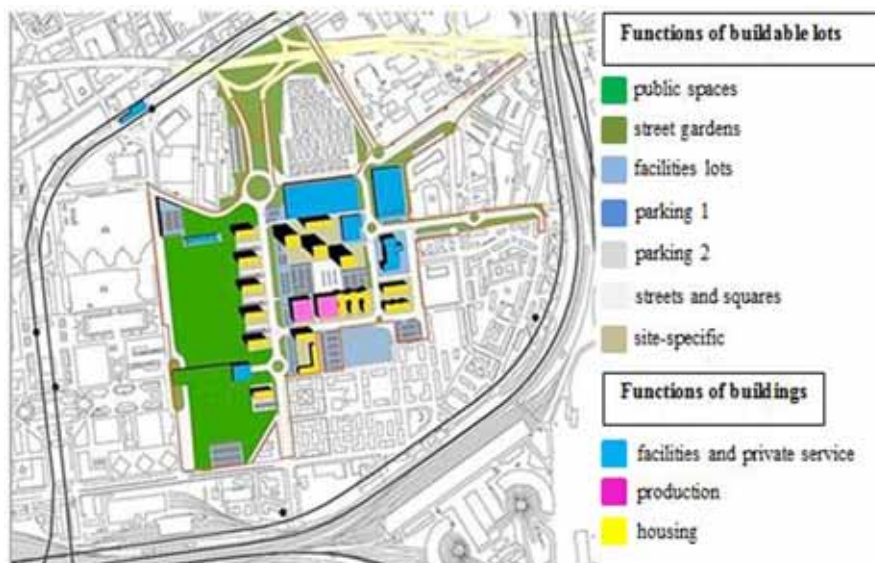


Fig. 10 Business District of Naples. New Planning

“Agorà S.p.A”. is also committed to provide the area with an urban park, in order to overcome the separation between the two levels, now only reserved for pedestrian and cars, respectively.

It is a large urban park located between the section currently existing and the new area, and it will feature a grid of pedestrian walkways and bicycle paths.

“Our project is completely new, and its concept is the smart city. We rely on the principles laid down by the city Administration who does not want to repeat the same town planning scheme as Tange, because it did not work in the management of the territory” (T.O. 8, “Agorà 6” project manager)

Facilities for leisure (cinemas) Sports (gyms, indoor and outdoor pools, soccer and basketball courts) will be built, as well as a school and several green areas, 1,500 car parking spaces at ground level and covered, apartment buildings and finally an area for social housing, with facilities for the disabled.

A system of wireless internet coverage will allow free access to the network in the perspective of smart cities. Finally, a computer network will ensure efficient information services for the dialogue between citizens and the administration.

The idea is to start a new model of relations between the internationally branched I.C.T. companies' supply and the demand of the stakeholders who are well acquainted with local issues.

With such a project, the aim is to "catch" the delay and to "heal the rift" formed between the current CDN and the territory.

The project seems likely to be able to ensure a better integration of the area with the existing urban fabric, leading to a change in the direction of some of the needs of residents and visitors to the CDN who now complain about the lack of infrastructure and services especially for the leisure and fun.

The success of such an attempt would also improve the already existing portion of the Centro. The collaboration between the municipal administration and the team of designers will be essential.

7 FINAL CONSIDERATIONS

Clearly to complete the CDN you need to include those components which, although expected, were never really taken into account in the first stage of planning.

As mentioned above, one of the innovative aspects of Tange's project is to have "put man at the center of the scene" so that during the first phase of the project there is a tendency for a "smart design". At present, however, the CDN looks like an exclusively architectural project, unable to capitalize on social and territorial public space.

It was welcomed as an opportunity given to the city by locating "new and rare functions", and creating an opportunity for the recovery of the surrounding areas, mainly residential. In fact, this "giant" did not trigger any process of redevelopment of the eastern end of town or the neighborhood (Poggioreale) where it was built. The result is evident in the urban and social consequences of which we are witnesses. You may not think to make a smart city through top-down directives; when you draw up the urban and territorial plans you need to enable tools that leverage the practices and principles of governance.

It will be necessary to start again from the impulse towards technological innovation of the original concept of CDN and to relate it to the most advanced principles of participated planning and "smart governance".

It is therefore necessary to consider the vocation of our cities, their specificity - for example, the presence of historical centers and a widespread cultural heritage - and give shape to the vision of the future just mentioned.

An efficient and sustainable city must ensure large pedestrian areas and pollution control. The "smart governance" is accomplished through defined objectives, clear plans, actions with a clear financial plan, ongoing monitoring that accompanies all phases of planning and design and divulgation of results.

Unfortunately there is still a rift between the scientific resources (urban planning, sociology, architecture) and the local administration anchored to old principles of planning, too heavily regulated. If only for a short time, "Tange's project" was for Naples an innovative breakthrough in the field of urban planning; however it was not followed by a phase of "smart relaunch" of the city, due to several structural and political constraints that prevented Naples to fulfill the principles and best practices of a smart city.

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IMAGE SOURCES

Cover image: photo by Fabrizio Canfora

Fig. 1: is from Campania Region, June-July 1998

Fig. 2: is from Mededil S.p.a. Elaborated by the authors

Fig. 3: photo by Fabrizio Canfora

Fig. 4: is from Ge.Se.Ce.Di. (2011). Elaborated by the authors

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Fig. 7: is from Ge.Se.Ce.Di. (database 2011). Elaborated by the authors

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Fig. 10: is from Municipality of Naples-Department of Urban Planning

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