

Checking Smartness “On the Ground”: Historically Rooted Dilemmas, Future Challenges and Visions for a Smarter Metropolitan Area of Rome

Cecilia Scoppetta

(PhD Cecilia Scoppetta, Sapienza University of Rome)

1 ABSTRACT

Without establishing a link between theoretical reflection and empirical inquiry, “smartness” as well as “smart development” risk to be nothing but what Star and Griesemer (1989) would call a «boundary object» (i.e.: something that can be interpreted in so many different ways). On the one hand, in fact, three main different smart urban development approaches can be distinguished; on the other, existing resources and local weaknesses, possible opportunities and challenges play a relevant role. The aim of the paper thus consists of checking “on the ground” the concept of “smart development” by using as a case-study the city of Rome and its metropolitan area.

2 SMARTNESS AS A “BOUNDARY OBJECT”

Contradictions, ambiguities and even unexpected consequences implicated in concepts, ideas, images and imaginaries rotating around “smartness” require a link between theoretical reflection and empirical inquiry: checking “on the ground” existing resources and local weaknesses, possible opportunities and challenges to be considered for a city – in this case, the metropolitan area of Rome – in order to become “smart” is of paramount importance for assessing the present state and the future perspectives of smart cities. In fact, by using a notion originally proposed by Star and Griesemer (1989), we could say that “sustainable development” – as well as the ITC “declination” of smart cities – is nothing but a «boundary object», i.e.: an “object” (which can be constituted by material objects as well as texts, ideas, programs and so on) that can be interpreted differently, given the different perspective and interests, by the actors involved while retaining a core set of shared meanings, allowing mutual understanding or productive misunderstanding.

As well-known, the very idea of “smart development” was first proposed by Meadows *et al.* (1972), but its “official” roots are to be searched in the concept of sustainability (WCED, 1987): since 1987, when “Our Common Future” established “sustainability” and “sustainable development” as part of the global lexicon, such concepts have become a fundamental theoretical framework for urban and regional studies, but they could also be described as one of the most important pieces of rhetoric characterising the last three decades (see, e.g.: Myerson & Rydin, 1996): as both a “catchwords” and a contentious concepts from the outset, scientific literature on the topic is considerable, and yet books and article come out relentlessly (a literature review on the topic can be found in: Jepson, 2001).

Nevertheless, the idea of “sustainability” – too broad, vague and economically-centred – is far from being an effective paradigm: while many scholars highlight how the meaning of “sustainable development” still remains obscure (Lindsey, 2003; Hanan, 2005), even its best-known definition— «development that meets the needs of the present generation without compromising the ability of future generations to meet their needs» (WCED, 1987, p. 8) — is widely criticised on a variety of environmental, economic and ethical grounds (see, e.g.: Daly, 1989; Daly & Cobb, 1989; Broad, 1994; Skirbekk, 1994). In short: what is at stake is how needs are to be defined and anticipated, and by whom. Not surprisingly, although there is substantial agreement about the conceptual meaning of sustainability in ecological and systemic terms, its translation “on the ground” into physical human settlements remains problematic (Harris & Goodwin, 2001).

3 THREE SMART SUSTAINABLE URBAN DEVELOPMENT MODELS

3.1 Smart growth

According to literature on the topic, three main different urban development approaches can be distinguished. First, the model of “smart growth”, which can be understood as an attempt to restrain sprawl through a variety of land-use control and other regional/local policy mechanisms aimed at encouraging more compact development, urban revitalisation/re-discovery, transportation and housing diversity, open space protection, and collaborative decision-making (see, e.g.: APA, 2002; see also: Campbell, 1996). During the 80s, in fact, in many European cities the economic growth has been accompanied with a reduced population density (Newman & Kenworthy, 1999; Bruegmann, 2005), and decentralisation of workplaces and

residences is by many considered an almost inevitable tendency in Western Europe (EEA, 2006), while in the Eastern European countries urban sprawl takes place «at a pace which leaves anything experienced in the west far behind» (Schwedler, 1999). As a consequence, during the latest decades, several studies (e.g.: Newman & Kenworthy, 1999; Williams *et al.*, 2000; Næss, 1993; 2001) have investigated the performance of different urban spatial structures against sustainability criteria.

The smart growth approach particularly focuses on the relationship between urban form and mobility as it is believed that dense and concentrated urban development is more conducive to sustainable mobility than low-density spatial expansion of the urban area (Newman & Kenworthy, 1999; Næss, 2006; 2009; 2010; Zegras, 2010), so that the compact city is proposed as a sustainable urban form (CEC, 1990; Jenks *et al.*, 1996), without considering the relevance of the inhabitants' choices of mode of transportation, which, in turn, are influenced by further factors, such as, for instance, the relative speeds of car and public transport (Næss, 2006). Furthermore, many scholars still tend to focus on a technical invention, as the automobile is, as the cause of the spreading of sprawling pattern, but this is a simplistic view, since not only the city scale represents a specific challenge, but also cities' structures and mobility patterns are arguably highly complex systems that are shaped in so very different ways depending on the natural, social, economic and political conditions. In fact, the “car regime” actually still is something different within European countries: it characterised West European cities during most of the 20th century to an extent higher than the Soviet Union or the East European countries – where collective solutions and, consequently, apartment buildings were dominating – but lower than USA and Canada, where individual solutions and lifestyles and, thus, single-family homes played a relevant role (Pucher, 1990).

Under smart growth, however, an expansive economy and population are not viewed as necessarily incompatible with environmental protection (Daniels, 2001; Porter, 2002; Ye *et al.*, 2005), whereas, instead, what seems to be needed is a critical analysis of overall political-economic structures and mechanisms acting as driving forces towards generally increased consumption levels, single-family housing and mobility schemes, and weak urban land use regulations (Harvey, 2010). In other words, barriers to smart sustainability are to be searched into the capitalist economic system and its growth imperative, competition, uneven spatial development and adersion against regulations.

3.2 New urbanism

Supported by a strong interest group in both US and UK, the model of “new urbanism” (CNU, 2009; Barnett, 2004; see also: Næss, 2011), instead, is strongly design oriented, representing an “architecture of community” that is more humanised in scale and character. With a focus on physical appearance and neighbourhood layout to improve quality of life, it calls for more compact, mixed-use development, housing diversity, architecture that is consistent and sensitive to place, common open space abundance and internal circulation that is pedestrian friendly and oriented (Katz, 1994; Wheeler, 2004). Problems concerning the model of “new urbanism” consist of the fact that the latter is nothing but a “niche solution”, which will have to co-exist for a very long time with the inertia of the existing urban built environment: a long-term affair also representing an investment that unavoidably creates strong path-dependencies. Thus, such niches of innovation are smart only in a relative sense, not in absolute terms, since old material structures are rarely being removed to the same extent as new ones are added. Smart urban development, in fact, is not only about promoting the environmentally less damaging solutions, it is also about actively constraining and shrinking the existence of the unsustainable “objects”.

Furthermore, the actors promoting such niche solutions and the vested interests they represent seem to be somewhat overlooked, being a little focus on struggles between different interest groups each seeking to realise their specific desired version of a smarter sustainable society: a practice of “offering something for every taste”, which appears to be closely tied to the prevailing neo-liberal and economic paradigm and to the related consumerism represented by ever-increasing mobility and soil consumption. Not surprisingly, Krueger and Gibbs (2007) highlight a strong correlation between US cities which have prospered in the so-called “new economy” and those which have adopted sustainable policies, since increasing green public areas, decreasing traffic and road congestion, promoting green energy systems and alternative ways of recycling may be considered as factors in the attraction of talent, tourists, and investors, also contributing to both an increase in housing costs and a fostered process of gentrification: an unintended result that has been defined as «eco-gentrification» (Keil, 2007).

In this sense, the model of new urbanism clearly mirrors discourses of ecological modernisation (Mol *et al.*, 2009) as it seems to be permeated by a tacit assumption of continual economic growth, according to which innovation can redefine ecological limits, so that economic growth can be de-coupled from environmental degradation by re-directing production towards environmental goals (Smith *et al.*, 2010) and thus promoting a sort of green competitiveness in the market economy (see: Bluhdorn & Welsh, 2007; Vavouras, 2011), without considering the need to ensuring a decent standard of living for the least affluent inhabitants. What is to be highlighted here are risks in policies which are theoretically framed in a smart sustainable approach but which in practice are simply sustaining a green economic growth: in fact they can end fostering inequalities among social groups (Cucca & Tacchi, 2012).

3.3 The “ecological” approach

Finally, the perspective of what can be summarised as the “ecological” approach is local, but its area of concern is systemic, as it considers the community as the product of a collection of interactions that must be kept in balance over time. The aim is to develop communities that do not exceed the limits of nature to sustain them, according to the concept of carrying capacity. This is accomplished primarily through public policies that encourage the replacement of non-renewable energy and other resources, the protection of open space (particularly in relation to biological and natural processes, assets and services), the use of “appropriate” technologies, the reduction and natural assimilation of waste, and local economic and functional self-reliance (Platt, 2004; Kline, 2000; Register, 2002; White, 2002). Nonetheless, as Pellizzoni (2012) argues, the undeniable successes towards eco-efficiency due to new technological and regulatory instruments «look geographically, socially, politically and technologically fragmented», so that they end to be «often questionable in their eventual result».

On the one hand, as the connections it establishes between economic, ecologic and social aspects constitute a cornerstone of the notion of sustainability, according to which profit, planet and people are to be seen not only as reciprocally implicated but as mutually reinforcing, Connelly (2007) argues that the image of three intersecting circles «neatly capture[s] the difference between sustainable development and the previously separated concerns of policy and politics, suggesting not only the holistic scope of the concept but also its characteristic claim to integration». On the other hand, Marcuse (1998) points out two main critical aspects of the concept of sustainability: the first one concerns the limitations imposed by the technology of the present and near future on the ability of the environmental resources to fulfil human needs; the second consists of the barrier, represented by the social organisation of the economic means of production, to the possibility of following a sustainable pattern of development.

Therefore, as Burns (2012) remarks, «rather than precise scientific concepts», “sustainability” and “sustainable development” «are political and normative ideas». As such, they do not imply semantic disputations but political arguments (Jacobs, 1999) because «they are contested and part of struggles over the direction and speed of social, economic, and political initiatives and developments» (Burns, 2012; see also: Davidson, 2009; Krueger & Agyeman, 2005; Bluhdorn & Welsh, 2007). Risks, in fact, concern that «in place of radical new openings» the term could be (and usually is) «attached uncritically to existing practices and policies that might benefit from ‘re-branding’», on the broader frame of «the re-emergence of market economics and neo-liberal policies», and the consequent attempt «to transform environmental choices into market preferences, following neo-liberal orthodoxy» (Redclift, 2005; see also: Swyngedouw, 2007; 2010; Pellizzoni, 2011; Pellizzoni & Ylönen, 2012).

In fact, although «human well-being, equity, democratic government, and democratic civil society are central constituents of sustainability» (Magis & Shinn, 2009), the social pillar of the concept has entered the political agenda to a limited extent (Dillard *et al.*, 2009). On the one hand, despite some exceptions (e.g.: Pòlese & Stren, 2001; Magis & Shinn, 2009; Boström, 2012), especially topics relating to social inequality, justice and inclusion seem to be both less integrated into studies considering sustainability and replaced by more intangible and less measurable concepts, such as “identity”, “sense of place”, and the benefits of social networks (Colantonio, 2008). On the other hand, traditional themes, such as equity, poverty reduction and livelihood, have instead been gradually left to the broad and independent literature concerning overlapping concepts such as “social cohesion” and “social exclusion” (Pahl, 1991; Littig & Griessler, 2005).

4 CHECKING SMARTNESS ON THE GROUND: THE METROPOLITAN AREA OF ROME AS A CASE STUDY

4.1 The role of rent and the spreading of illegal settlements

4.1.1 The “real estate block” as collusive oligopoly

At the beginning of the 19th century the city of Rome was surrounded by the vast emptiness of the so-called “Roman Campagna” and a new bourgeois class was emerging. These were the so-called “*mercanti di campagna*” (“countryside merchants”): about 80 former shepherds who accepted to rent lands from aristocratic landlords even with lease contracts based on 15-years prepayments in order to manage all the economic activities linked with the latifund. After the unification of Italy (1860), when Rome began the capital city (1870), such emerging social group – more and more involved in building activities – will constitute a serious obstacle for modernisation: first for its systematic evasion of taxes on agricultural products, and, second, for its complicity with the aristocratic landlords to retard, through false purchase and sale, the selling off of ecclesiastic properties according to the Law no. 1402/1873 (Della Seta, 1987). This coalition constitutes the basis of what, in the mid-20th century, Parlato (1970) will call «*blocco edilizio*» (“real estate block”). As a result, from 1873 to 1881 about a fourth of the land of the Roman Campagna changed its owner, but without being divided in smaller plots, as the law required, so that large and very large latifunds (50% more than 500 ha., 20% between 2,000 and 5,000 ha.) were 396, and owners 204.

Thus, what will become the distinctive features of the urban development of the city of Rome are already highlighted here: first, the assumption of rent (especially “waiting” rent) as *primus movens* for urban development, resulting in a collusive oligopoly of the holders of building areas (Insolera, 1962; Tocci, 2009; Natoli, 1953; Cederna, 1956; 1965; 1991; Della Seta & Della Seta, 1988); second, the weakness of the local public administration, who renounces claiming a non-partisan position (Insolera, 1959). In addition, a cultural debate highly dissociated from the effective management of the city, although architects and planners, as depositories of “specialist” knowledge, tended (and still tend) to establish themselves as members of the ruling class (in: Sanfilippo, 1992).

On such a background, two distinctive movements characterising the cyclical process of urban expansion can be clearly distinguished: a first one consisting of the establishment of legal or illegal settlements as isolated outposts in the rural space, outside the borders defined by the city’s master plans; then, a second movement corresponding to their legitimisation through the inclusion within further borders of further plans (i.e.: their “phagocytation” by the urban, but without really “digesting” them). For this reason, differently from north-European countries, urban sprawl in Rome cannot be interpreted as the outcome of sub-urbanisation, guided by the demand for a better quality of life, but rather as the expression of an over-urbanisation: a sort of «overflow» (Scoppetta, 2009). Such double movement – building outposts in the rural space, then including them into master plan thus providing them with public infrastructures and services so that the in-between areas may be granted of planning permissions – means a process of rent accumulation given by the betterment value (i.e.: the increase in the value of land determined by changes in the planning regime). In other words: the increase of the value of land is clearly concerned with planning decisions as the latter may consist of granting of planning permission for a higher value. Both infrastructure improvements and provision of new services are further forms of betterment that increase the value of land.

Parlato’s «*blocco edilizio*» (1970), dominating the city for so many years, was a heterogeneous coalition politically supported (and largely favoured) by the right-wing, with a hegemonic nucleus of landlords (widely including the Catholic Church for obvious historical reasons) and financial groups. Among these, the Società Generale Immobiliare (SGI), a land-credit bank controlled since 1935 by the Vatican thanks to money deriving from the compensation by the Italian State within the frame of the Lateran Agreements (Vidotto, 2005; Caracciolo, 1956). In 1945, in fact, the Vatican was one of the four major shareholders (32%, while the other three: 5,1%, 2,9%, 1,8%) (Bartolini, 2001). Such coalition used for rent-seeking what Parlato (1970) has identified as «the ideology of privately owned house» (see also: Rochat *et al.*, 1980). In fact, in 1951 a relevant unbalance existed between the total amount of flats and resident families, as many of them arrived in Rome from the central and southern Italy during the final bombing phase of WWII and informally settled outside the urbanised area. They lived in crowded (600.689 families) or overcrowded (520.517) conditions, and less than a half of the inhabited flats were not provided with kitchen, drinking water,

bathroom, electrical and gas equipment (103). In 1951, in fact, the urban areas with illegal and informal buildings occupied 1.300 ha. and hosted 150.000 inhabitants (De Grassi, 1979).

In 1948 the SGI promoted the Istituto per l'edilizia economica e popolare (IEEP), a public/private partnership for social housing involving the Vatican, some private banks and some of the major national public or private companies as well as the (public) Cassa per il Mezzogiorno, established for promoting the development of the disadvantaged Southern regions. The IEEP was widely favoured by the funding provided by the so-called "Tupini's Law", and, then, by the Decree no. 399/1947 (then: Law no.22/1950). Thus, after the stop due to WWII, at the end of the 40s the building sector impressively grew. In the decade 1951-1961 the population increased (+32,4%), and between 1951 and 1971 the total amount of flats tripled (from 319.230 to 873.802). Between 1951 and 1958 4.000 ha. were urbanised (+80%). In the decade 1951-1961, at the beginning of the so-called "economic miracle", 253.016 flats were built, corresponding to the city of Genoa (Avarello, 2000). Then, at the end of the 60s, building activities decreased, and between 1971 and 1981 new flats were less than a half than the previous decade (from 301.556 to 141.967). Anyway, the direction of the expansion was always given by land-ownership (precisely: by lands owned by the SGI).

4.1.2 The public, the private and the illegal city

Between 1951 and 1961 a 15% of legal buildings were directly promoted by the public sector, while a 20% was built by more or less publicly-supported cooperatives and the remaining 65% by the private sector. In the 60s, when the total population of the city reached 2,167,285 residents, the total amount of legal buildings provided by both the public sector and cooperatives decreased (4,4% and 5%), while private building activities increased (90%). But such tumultuous expansion could not solve the housing problems, as the housing supply was widely unbalanced towards higher and middle classes. In fact, in 1981 there was an increasing of urban areas with illegal and informal buildings (8.500 ha., i.e.: 28% of the urbanised areas), with 800,000 inhabitants and families living in crowded (29,1%) and overcrowded (21,3%) conditions (Insolera, 1962; see also: Ferrarotti, 1974). The «spontaneous metropolis» (Clementi & Perego, 1983) that emerged in the "Roman Campagna" was made by settlements that «do not seem having any definitive goal», as they are the «result of unstable additions and adjustments», so that each settlement «during a month can be changed; during a year it certainly will», since «the simple possibility in achieving any balance does not have a sense, because there has never been a project to be implemented» (see also: Berdini, 2010).

Even because of the flourishing of both innovative approaches in sociological research (Ferrarotti, 1970; 1974) and Pasolini's literary works (1955; 1959), such dualism between the legal and the illegal city led, however, to the emerging of the periphery as a new active social subject, and this, in turn, during the 70s, resulted in urban struggles for social housing that, finally, led to a shift in both political coalition and urban regime that ended influencing the national policy. In fact, the welfare regime of the new left-wing coalition, by focusing on the periphery utilised the so-called "Fanfani's Law" (Law no.43/1949) for social housing (see: Di Biagi, 2001) in order to increase the "public city" and to compensate with a large amount of public investments for the severe rent speculation of the previous conservative urban regime, occurred outside any regulative framework. The public activism in constructing the city, therefore, increased, and in the 70s the public city reached the 17% of the total amount of built flats. But, however, it remained below average with respect to the other European countries (Dematteis, 1995). Furthermore, the new welfare regime paradoxically ended favouring the "real estate block", as the newly built neighbourhood were located far from the extreme edge of the urbanised areas, and often in-between large privately-owned lands, so that landlords could exploit through the mechanism of the so-called «*saldatura edilizia*» ("building soldering") (Insolera, 1962) the public infrastructure and services that provided their land with an increased value.

During the 60s, several reform proposals were unsuccessfully made in order to eradicate or capture the betterment value created by the planning system. In 1962 the Demo-Christian Minister for Public Works Fiorentino Sullo elaborated a comprehensive bill aimed at requiring prior public ownership of land before any development could take place: no development was to be allowed on private land and the expropriation costs were to be based on the agricultural value of land. Municipalities in turn were to service the bought land and then sell it at a value increased by the costs borne to build infrastructures and utility facilities (Sullo, 1964). But, surprisingly (or not?), the Prime Minister and leader of the Demo-Christian Party Aldo Moro withdrew his support to the reform (which was proposed by a member of his own party!). The latter was subject to a violent campaign of denigration in the national press and portrayed as wanting to "steal homes"

from Italians, so that the reform was definitively abandoned in the name of the Parlato’s (1970) «ideology of privately owned house».

During the 60s was also approved a new master plan. The plan making process took about 12 years to come to approval, so that the original plan prepared during the 50s had a completely different strategy from the final version: about 5 million people and rooms (2 million more than the current registered population, according to Campos Venuti, 2001) to be accommodated in future years in the city. In this way, private property landowners were granted development rights for about 3 million rooms of which around one third remained unused at the present time. Such overdevelopment still represents one of the major challenges for constructing a really smart sustainable vision.

4.2 The unsustainable metropolitan area of the city of Rome in neo-liberal times

4.2.1 Overflowing outside city limits

The current urban form of the metropolitan area of the city of Rome is the result of the described rent-guided pathway: despite many proposals and also official comprehensive plans aimed at decentralising the urban growth according to polycentric principles, it appears as still centralised, with an extensive and discontinuous outlying “nebula”. Expansions, in fact, have been developed around the core area according to the historical radial routes and following subsequent sprawling, which were led by both the direction of public housing neighbourhoods and the spread of illegal suburbia. The result is a fragmented more or less protected rural discontinuity within the urban fringe.

If analysed according to an approach based on the theory of the cities’ life cycle (Berry, 1976), the situation in 1961 consists of the first stage of urbanisation. In fact, the settlement pattern is still centralised on Rome (2.167.285 residents, i.e.: 78,1% of population of the Province of Rome) and the space occupied by urban uses (10.262 ha.) is almost 70% of the urbanised area in the Province (Scoppetta, 2009). In 1991, both lower population and settlements dynamics can still be interpreted, according to an evolutive approach, as the effect of the second phase of relative de-centralisation. During the 80s, in fact, Rome lost its population (-2,45%) while the other municipalities grew (+15%). Also the urban land use area in Rome grew (+14.8%). The other municipalities, instead, for the first time overcame Rome, where there was a significant residential de-centralisation. According again to an evolutive approach, the effects of the phase of absolute decentralisation of the 90s clearly appeared in 2001. Rome (2.546.804 residents, i.e.: 68.8% of the provincial population) lost population more relevantly than in the 80s (-187.104, -6.8%) with a smaller increase of urban land uses (34.122 ha, +9.7%) with respect to the previous decade. In the adjacent centres, instead, the increase was +494 ha. (including 350 ha. near the borders with Rome).

However, if analysed as related to the exponential increase in house prices, data gain a different meaning: in Rome, in fact, the real estate sector grew by 4,1% in 2001, by 2,3% in 2003 and by 4,7% in 2004 but, nevertheless, this abundance of supply could not “meet” the growing demand for low-cost housing, which, instead, remained unsatisfied also because of the substantial absence of adequate housing policies (see: Caudo & Sebastianelli, 2007; Berdini, 2008). The association between performances of real estate market and settlement dynamics of Roman metropolitan area seems to suggest, therefore, a different interpretation. Sprawl is not the outcome of a sub-urbanisation stage and of the demand for better quality of life, but it is the expression of a growth trajectory rather tending to an over-urbanisation. In short, the breaking of compact city do not stretch towards a settlement pattern based on diffusion, but – on the contrary - to a kind of demographic-building “overflow” without discontinuities from the more central areas to the suburban ring. In other words: the city of Rome “spontaneously” tends to shift the demand to low-income housing towards the contiguous territories, thus spreading towards the hinterland an extensive and undifferentiated metropolitan suburbia, as the housing demand tends to be simply resolved through the further enlargement of the existing urban form.

According to such trends, therefore, the housing resumption of Rome (especially if devoted to high-income social groups) will allow the absorbing of an insignificant share of the constant (even if low) population growth (recorded in 2005). A main portion of this would be instead absorbed by neighbouring centres, emphasising the widespread nature of settlements, while functions and activities supply and the resulting commuting would continue to focus on the central urban area and its peri-urban periphery. This means that settlement processes of almost equal weight to those in the central area will arise and will result in the

disintegration of the historical little-sized surrounding centres through diffusive patterns, by “nebulising” the morphologies of the original polycentric settlement system and thus establishing a substantial homogenisation of different territories. In fact, the forms of such an “overflow” of the city of Rome appear as substantially homogeneous and indifferent to the existing structures.

The peculiarity of such a pattern more clearly appears when comparing data on soil consumption in the Roman metropolitan area with those of similar European territorial contexts: significantly, higher values result not only as concerns the territory of the municipality of Rome, but also and especially the territory of neighbouring centres having higher values than the “rings” of European capitals, which are characterised, in general, by planned settlements.

4.2.2 Neo-liberal planning and path-dependency

During the more recent decades, the historically rooted role of rent in shaping the urban form of the city of Rome has been re-launched by the new-left coalition that has governed the city from 1993 to 2008 through the developer-led planning practice called “planning by doing” (see: Berdini, 2008) – i.e.: single large-scale projects instead of comprehensive plans – whose starting point consists of the establishment of special legislation (Law n.396/90) for the Jubilee, including a more manageable planning procedure based on a public-private agreement (the “*accordo di programma*”).

Such planning practice was presented as a way to overcome what Sullo (1964) had indicated as «the slowness with which plans (do not) come to adoption – slowness that can last ten to fifteen years», which «is not the result, as someone wants to believe, of lack of commitment by administrators and public officers, but it is determined above all by harsh private negotiations for the use of areas to be developed». In fact, once development rights are assigned (and massive increases in the value of land are thus determined), the private developers acquire wide discretion on timing of implementation, since such rights (which are reversible in theory) will never be withdrawn by local administrations so as to avoid major opposition. This highlights what has been identified as a distinctive feature of Italian planning practice (Chubb, 1981; 1982; Fried, 1973), i.e.: dark (sometimes degenerating into illegal) negotiations and networks (see: Raab & Brinton, 2003; O’Toole & Meier, 2005) aimed at influencing urban development towards already available areas or areas of easy acquisition. In this sense, it is worth underlining that, surprisingly (or not?), Italian planning literature (especially the academic) has not taken such a crucial element into consideration, being most of the studies on this subject carried out by British or US scholars (see e.g.: Banfield, 1958; Giordano, 2006). Even in the case of well-known critical scholars, such as Edoardo Salzano and Vezio De Lucia, and although in their works we can find some references to pressures on planning decisions (De Lucia, 2010; Salzano, 2010), such a phenomenon is never interpreted in terms of power relationships.

On the contrary, if analysed by using political lens, in the «triumph of real estate speculation and commercial boxes» (Berdini, 2008) occurred in the most recent decade – i.e.: the most intense real estate cycle since the WWII occurred from 1997 to 2006 – we can find traces of what Peck and Tickell (2002) have called «roll-out neo-liberalism» (see also: Raco, 2005), based on a more active role (rather than a reduction) of the State in facilitating the accumulation of capital. In fact, while the previous phases of speculation had occurred outside any regulative framework (the “illegal city”) and were compensated by public investments of the welfare state (the “public city”), the current trend – resulting in an unsustainable urban form – is legitimised by the new master plan (2003) on the background of the erosion of welfare policies at the local and national level.

By referring to a non-updated idea of merely physical polycentrism (see: Scoppetta, 2011; 2013), the new master plan foresees 18 “new centralities” aimed at de-centralising the main employment locations that are traditionally located into the congested historical city centre. They are planned to be located along railway connections, in close proximity to rail stations with a strategy called the «steel cure» (Marcelloni, 2003), according to which, in the case of a new design scheme, public transport infrastructure must be in place and functioning before the new development is built.

But such new developments – often consisting of a mere juxtaposition between residences and commercial boxes as the only reserves of urban life – have been located into or close to the properties of a few powerful (always the same) developers rather than in close proximity with already existing rail tracks and they have been carried out faster than the public infrastructure necessary to guarantee metropolitan connections. In addition, the promised public infrastructure remained unfinished (being them never started), with a

consequent strong car-dependent mobility, and, in certain cases, further project financing schemes have then been proposed as a way to find further funds for mobility infrastructures through further residential developments. Finally, in the more recent years, many scandals concerning corruption have arisen especially as regards calls for tenders related to infrastructures, with an impressive illegal appropriation of public funds.

As the new Provincial Territorial Plan foresees not only further centralities (!) but also road extensions in order to both connect the latter with the city centre and reduce congestion thus causing a higher proportion of the commuters to choose the car mode (Scoppetta, 2012) – whereas faster and better public transport may have the opposite effect (Mogridge, 1997; Næss *et al.*, 2001) – things will obviously get worse. Not to mention the lack of criteria for the settlement of garbage disposal installations so that the emergency conditions can be used for favouring always the same landowner by locating such installations on his property or, more generally, for setting aside planning rules concerning the foreseen (and improperly called) “ecological network”.

5 CONCLUSIONS

Rent-seeking policies and dark networks clearly highlight not only «the path-dependent character of neo-liberal reform projects» (Brenner & Theodore, 2002), but also the reasons for which Rome can difficultly be intended as a smart city whatever the privileged approach (smart growth, new urbanism or the ecological). In fact, according to Campos Venuti (2010) «land rent represents the main pathological factor of the real estate regime and it is responsible for all its perverse effects on cities, [...] the environment and landscape». Such effects involve speculation, overdevelopment and reduced resources available for other kind of smart investments in other sectors of the economy and the need to provide for more and smarter infrastructure. In fact, the landowners who benefit from the increase in the value of land cannot be considered among the productive factors as such increment – which is neither the fruit of personal investment nor the consequence of individual efforts – unavoidably ends to result in taking away a quota of national income from the categories which produced it. Therefore, the way for Rome to become a smart city consists of collecting the increase of land value thus forcing developers and landowners to share with the wider community at least a part of the unearned increment they appropriate thanks to practices related with dark networks.

6 REFERENCES

- AVARELLO, P.: L'urbanizzazione. In: DE ROSA, L. (ed.): Roma del Duemila. Laterza, Roma-Bari, 2000.
- BANFIELD, E.C.: The Moral Basis of a backward society. Free Press, New York, 1958.
- BARNETT, J.: Codifying New Urbanism, Planning Advisory Service #526. American Planning Association, Washington, DC, 2004.
- BARTOLINI, F.: Roma borghese. La casa e i ceti medi tra le due guerre. Laterza, Roma-Bari, 2001.
- BERDINI, P.: Breve storia dell'abuso edilizio in Italia, dal ventennio fascista al prossimo futuro. Donzelli, Roma, 2010.
- BERDINI, P.: La città in vendita. Donzelli, Roma, 2008.
- BERRY, B.J.L. (ed.): Urbanization and Counterurbanization, Sage, New York, 1976.
- BLUHDORN, I., WELSH, I.: Eco-politics beyond the paradigm of sustainability: a conceptual framework and research agenda. In: Environmental Politics, Vol.16, pp.185-205, 2007.
- BOSTRÖM, M.: A Missing Pillar? Challenges in Theorizing and Practicing Social Sustainability: Introduction to the Special Issue. In: Sustainability: Science, Practice & Policy, Vol.8, pp.3-14, 2012.
- BRENNER, N., THEODORE, N.: Cities and the Geographies of 'Actually Existing Neoliberalism'. In: BRENNER, N., THEODORE, N. (eds.): Spaces of Neoliberalism: Urban restructuring in North America and Western Europe. pp.2-32, Blackwell, Oxford, 2002.
- BROAD, R.: The poor and the environment: Friends or foes?. In: World Development, Vol. 22, Issue 6, pp. 811–822, 1994.
- BRUEGMANN, R.: Sprawl: A compact history. University of Chicago Press, Chicago, 2005.
- BURNS, T.: The Sustainability Revolution: A Societal Paradigm Shift. In: Sustainability, Vol.4, pp.1118-1134, 2012.
- CAMPBELL, S.: Green cities, growing cities, just cities?. In: Journal of the American Planning Association, Vol. 62, Issue 3, pp. 296–312, 1996.
- CAMPOS VENUTI, G.: Il piano per Roma e le prospettive dell'urbanistica italiana. In: Urbanistica, Vol.116, pp. 43-46, 2001.
- CARACCILOLO, A.: Roma capitale. Dal Risorgimento alla crisi dello Stato liberale. Editori Riuniti, Roma, 1956.
- CAUDO, G., SEBASTIANELLI, S.: Per la casa passa la città: Roma e la nuova questione abitativa. Egea-Università Bocconi Editore, Milano, 2007.
- CEC: Green paper on the Urban Environment. Office for the Official Publications of the European Communities, Luxembourg, 1990.
- CEDERNA, A.: Brandelli d'Italia. Newton Compton, Roma, 1991.
- CEDERNA, A.: I vandali in casa. Laterza, Bari, 1956.
- CEDERNA, A.: Mirabilia Urbis. Einaudi, Torino, 1965.
- CHUBB, J.: Patronage, power and poverty in southern Italy: a tale of two cities. Cambridge University Press, Cambridge, 1982.
- CHUBB, J.: The Social Bases of an Urban Political Machine: The Case of Palermo. In: Political Science Quarterly, Vol.96, Issue 1, pp.107-125, 1981.
- CLEMENTI, A., PEREGO, F.: La metropoli “spontanea”. Il caso di Roma. Di Donato, Bari, 1983.



- CNU-CONGRESS FOR THE NEW URBANISM: Charter of the New Urbanism. 2009. Available at <http://www.cnu.org/charter> (accessed 22 October 2013).
- COLANTONIO, A.: Traditional and Emerging Prospects in Social Sustainability. In: EIBURS Working Paper Series, Vol.02, 2008.
- CONNELLY, S.: Mapping Sustainable Development as a Contested Concept. In: *Local Environment*, Vol.12, pp.259-278, 2007.
- CUCCA, R., TACCHI, E.: Trade-offs and tangles between sustainability dimensions. Case of accessibility as a missing pillar of sustainable mobility policies in Italy. In: *Sustainability: Science, Practice & Policy*, Vol.8, pp.70-81, 2012.
- DALY, H.E., COBB, Jr, J.B.: *For the Common Good*. Beacon Press, Boston, 1989.
- DALY, H.E.: Steady-state and growth concepts for the next century. In: ARCHIBUGI, F., NIJKAMP, P. (eds) *Economy and Ecology: Towards Sustainable Development*. Kluwer Academic, Boston, 1989.
- DANIELS, T.: Smart growth: A new American approach to regional planning. In: *Planning Practice and Research*, Vol.16, Issue 3/4, pp. 271–279, 2001.
- DAVIDSON, D.: Social Sustainability: A Potential for Politics?. In: *Local Environment*, Vol.14, pp.607-619, 2009.
- DE GRASSI, M.: Le condizioni abitative e la struttura dei redditi a Roma. In: DE GRASSI, M. (ed.): *La situazione abitativa a Roma*. Die, Roma, 1979.
- DE LUCIA, V.: *Le mie Città, Mezzo Secolo di Urbanistica in Italia*. Diabasis, Reggio Emilia, 2010.
- DELLA SETA, P., DELLA SETA, R.: I suoli di Roma: uso e abuso del territorio nei cento anni della capitale. Editori Riuniti, Roma, 1988.
- DELLA SETA, R.: La liquidazione dell'asse ecclesiastico. In: *Storia Urbana*, Vol.40, 1987.
- DEMATTEIS, G.: Le trasformazioni territoriali e ambientali. In: *Storia dell'Italia repubblicana*, Vol.II, Einaudi, Torino, 1995.
- DI BIAGI, P. (ed.): *La grande ricostruzione. Il piano Ina-Casa e l'Italia degli anni '50*. Donzelli, Roma, 2001.
- DILLARD, J., DUJON, V., KING, M. (eds) *Understanding the Social Dimension of Sustainability*. Routledge, London, 2008.
- EEA-European Environmental Agency: *Urban sprawl in Europe: The ignored challenge*. EEA report No.10.; EEA, Copenhagen, 2006.
- FERRAROTTI, F.: *Roma da capitale a periferia*. Laterza, Roma-Bari, 1970.
- FERRAROTTI, F.: *Vite da baraccati*. Contributo alla sociologia della marginalità. Liguori, Napoli, 1974.
- FRIED, R.C.: *Planning the Eternal City: Roman Politics and Planning since World War II*. Yale University Press, Yale, 1973.
- GIORDANO, C.: Appropriating the Common Good by Personalising Social Relationships. *Acquaintances, Patronage, and Corruption in Low Trust Societies*. In: *European Journal of Law Reform*, Vol.6, Issue 3/4, pp.461-486, 2006.
- HANAN, K.S.: Planning for sustainability: Experiences in two contrasting communities. In: *Journal of the American Planning Association*, Vol.71, Issue 1, pp. 27–40, 2005.
- HARRIS, J.M., GOODWIN, N.R.: Volume introduction. In: HARRIS, J.M., WISE, T.A., GALLAHER, K.P. GOODWIN, N.R (eds): *A Survey of Sustainable Development*. Island, Washington DC, 2001.
- HARVEY, D.: *The Enigma of Capital*. Oxford University Press, Oxford, 2010.
- INSOLERA, I.: *Roma moderna. Un secolo di storia urbanistica, 1870-1970*. Einaudi, Torino, 1962.
- INSOLERA, I.: *Storia del primo piano regolatore di Roma: 1870-1874*. In: *Urbanistica*, Vol.27, 1959.
- JACOBS, M.: Sustainable Development as a Contested Concept. In: DOBSON, A. (ed.): *Fairness and Futurity*. Oxford University Press, Oxford, 1999.
- JEPSON, E.J. Jr: Sustainability and planning: Diverse concepts and close associations. In: *Journal of Planning Literature*, Vol.15, Issue 4, pp.499-510, 2001.
- KATZ, P.: *The New Urbanism: Toward an Architecture of Community*. McGraw-Hill, New York, 1994.
- KEIL, R.: Sustaining Modernity, Modernizing Nature: The Environmental Crisis and the Survival of Capitalism. In: KRUEGER, R., GIBBS, D. (eds): *The Sustainable Development Paradox: Urban Political Economy in the United States and Europe*. Guilford, London, 2007.
- KLINE, E.: Planning and creating Eco-cities: Indicators as a tool for shaping development and measuring progress. In: *Local Environment*, Vol.5, Issue 3, pp.343-350, 2000.
- KRUEGER, R., AGYEMAN, J.: Sustainability Schizophrenia or Actually Existing Sustainability? Toward a Broader Understanding of the Politics and Promise of Local Sustainability in the US. In: *Geoforum*, Vol.36, pp.410-417, 2005.
- KRUEGER, R., GIBBS, D. (eds): *The Sustainable Development Paradox: Urban Political Economy in the United States and Europe*. Guilford, London, 2007.
- LINDSEY, G.: Sustainability and urban greenways: Indicators in Indianapolis. In: *Journal of the American Planning Association*, Vol.69, Issue 2, pp. 165–180, 2003.
- LITTIG, B., GRIESSLER, E.: Social Sustainability: A Catchword between Political Pragmatism and Social Theory. In: *International Journal of Sustainable Development*. 8, pp.65-79, 2005.
- MAGIS, K., SHINN, C.: Emergent Principles of Social Sustainability. In: DILLARD, J., DUJON, V., KING, M. (eds) *Understanding the Social Dimension of Sustainability*. Routledge, London, 2008.
- MARCELLONI, M.: *Ripensare la città contemporanea, Il nuovo piano regolatore di Roma*. Laterza, Roma, 2003.
- MARCUSE, P.: Sustainability is not enough. In: *Environment and Urbanization*, Vol.10, pp.103-111, 1998.
- MEADOWS, D.H., MEADOWS, D.L., RANDERS, J., BEHRENS, W.: *The Limits to Growth*. New American Library, NY, 1972.
- MOGRIDGE, M.J.H.: The self-defeating nature of urban road capacity policy. A review of theories, disputes and available evidence. In: *Transport Policy*, Vol.4, pp. 5-23, 1997.
- MOL, A., SONNENFELD, D., SPAARGAREN, G. (eds): *The Ecological Modernisation Reader: Environmental Reform in Theory and Practice*. Routledge, London-New York, 2009.
- MYERSON, G. RYDIN, Y.: *The Language of Environment: A New Rhetoric*. UCL Press, London, 1996.
- NÆSS, P.: 'New urbanism' or metropolitan-level centralization? A comparison of the influences of metropolitan-level and neighborhood-level urban form characteristics on travel behavior. In: *Journal of Transport and Land Use*, Vol.4, pp.25-44, 2011.
- NÆSS, P.: Can Urban Development be Made Environmentally Sound?. In: *Journal of Environmental Planning and Management*, Vol.36, pp.309-333, 1993.
- NÆSS, P.: Residential Self-Selection and Appropriate Control Variables in Land Use-Travel Studies. In: *Transport Reviews*, Vol.29, pp. 293-324, 2009.

- NÆSS, P.: Urban Planning and Sustainable Development. In: *European Planning Studies*, Vol.9, pp.503-524, 2001.
- NÆSS, P.: *Urban Structure Matters: Residential Location, Car Dependence and Travel Behaviour*. Routledge, NY/London, 2006.
- NÆSS, P.; MOGRIDGE, M.H.J., SANDBERG, S.L.: Wider Roads, More Cars. In: *Natural Resources Forum*, Vol.25, pp.147-155. 2001.
- NATOLI, A.: La speculazione fondiaria nella Roma dei clericali. In: *Rinascita*, dicembre, 1953.
- NEWMAN, P.W.G., KENWORTHY, J.R.: *Sustainability and Cities. Overcoming Automobile Dependence*. Island Press, Washington DC/Covelo (CA), 1999.
- O'TOOLE, L.J., MEIER, K.J.: Networking in the Penumbra: Public Management, Cooptative Links, and Distributional Consequences. In: *International Public Management Journal*, Vol.9, Issue 3, pp.271-294, 2006.
- PAHL, R.: The Search for Social Cohesion: From Durkheim to the European Commission. In: *European Journal of Sociology*, Vol.32, pp.345-360, 1991.
- PARLATO, V.: Il blocco edilizio. In: *Il Manifesto*, Vol.3-4, 1970.
- PASOLINI, P.: *Ragazzi di vita*. Garzanti, Milano, 1955.
- PASOLINI, P.: *Una vita violenta*. Garzanti, Milano, 1959.
- PECK, J., TICKELL, A.: Neoliberalizing space. In: *Antipode*, Vol.34, Issue 3, pp.380-404, 2002.
- PELLIZZONI, L., YLÖNEN, M.: Hegemonic Contingencies: Neoliberalized Technoscience and Neorationality”. In: PELLIZZONI, L., YLÖNEN, M. (eds): *Neoliberalism and Technoscience: Critical Assessments*. Ashgate, Farnham, 2012.
- PELLIZZONI, L.: Governing Through Disorder: Neoliberal Environmental Governance and Social Theory. In: *Global Environmental Change*, Vol.21, pp.795-803, 2011.
- PLATT, R.H.: Toward ecological cities. In: *Environment*, Vol.46, Issue 5, pp. 10-27, 2004.
- POLÈSE, M., STREN, R.E.: *The Social Sustainability of Cities: Diversity and the Management of Change*. University of Toronto Press, Toronto, 2001.
- PORTER, D.R.: *Making Smart Growth Work*. Urban Land Institute, Washington, DC, 2002.
- PUCHER, J.: Capitalism, Socialism, and Urban Transportation Policies and Travel Behavior in the East and West. In: *Journal of the American Planning Association*, Vol.56, pp.278-296, 1990.
- RAAB, J., BRINTON, H.: Dark Networks as Problems. In: *Journal of Public Administration Research and Theory*, Vol.13, Issue 4, pp.413-439, 2003.
- RACO, M.: Sustainable development, rolled-out neoliberalism and sustainable communities. In: *Antipode*, Vol.37, Issue 2, pp.324-347, 2005.
- REDCLIFT, M.: Sustainable Development (1987-2005): An Oxymoron Comes of Age. In: *Sustainable Development*, Vol.13, pp.212-227, 2005.
- REGISTER, R.: *Ecocities: Building Cities in Balance with Nature*. Berkeley Hills Books, Berkeley (CA), 2002.
- ROCHAT, G., SATERIALE, G., SPANO, L. (eds): *La casa in Italia 1945-1980. Alle radici del potere democristiano*. Zanichelli, Bologna, 1980.
- SALZANO, E.: *Memorie di un Urbanista: l'Italia che ho Vissuto*. Corte del Fontego, Venezia, 2010.
- SANFILIPPO, M.: *La costruzione di una Capitale*. Roma. Silvana editoriale, Milano, 1992.
- SCHWEDLER, H. U. (1999) Greenfield development versus inward urban development challenges in sustainable development in central and eastern Europe. Berlin:European Academy of the Urban Environment. <http://www.eaue.de/Vortrag/Greenfield.htm#top> (accessed 22 October 2013).
- SCOPPETTA, C.: Il policentrismo nell'età della globalizzazione. Il caso dell'area metropolitana di Istanbul. In: *Proceedings of the XVII International Conference "Living and walking in cities. The linear metropolis"*, Brescia, 2011.
- SCOPPETTA, C.: Il territorio come infrastruttura.. In: *TEMA*, Vol. 5, pp. 33-48, 2012.
- SCOPPETTA, C.: *Immaginare la metropoli della transizione: la città come living machine*. Campisano, Roma, 2009.
- SCOPPETTA, C.: The Multidimensionality of Contemporary Urban Spaces. Implications for Design. In: SCHRENK, M., POPOVICH, P., ZEILE, P., ELISEI, P. (eds): *Proceedings REAL CORP 2013 Tagungsband 20-23 May 2013*. Rome, 2013.
- SKIRBEKK, G.: Ethical gradualism, beyond anthropocentrism and biocentrism. In: SKIRBEKK, G. (ed.): *The Notion of Sustainability*. Scandinavian University Press, Oslo, 1994.
- SMITH, A., VOSS, J.P., GRIN, J.: Innovation studies and sustainability transitions: The allure of the multi-level perspective and its challenges. In: *Research Policy*, Vol.39, 2010.
- STAR, S.L., GRIESEMER, J.: Institutional Ecology, ‘Translations’ and Boundary Objects: Amateurs and Professionals in Berkeley’s Museum of Vertebrate Zoology, 1907-39. In: *Social Studies of Science*, Vol.19, pp. 387-420, 1989.
- SULLO, F.: *Lo scandalo Urbanistico*. Vallecchi. Firenze, 1964.
- SWYNGEDOUW, E.: Impossible ‘Sustainability’ and the Post-Political Condition. In: KRUEGER, R., GIBBS, D. (eds): *The Sustainable Development Paradox: Urban Political Economy in the United States and Europe*. Guilford, NY/London, 2007.
- TOCCI, W.: L'insostenibile ascesa della rendita urbana. In: *Democrazia e Diritto*, Vol.1, 2009.
- VAVOURAS, I.: From Sustainable Development to Green Growth: The Abandonment of the Social Character of Development. In: *Social Cohesion and Development*, Vol. 6, pp.27-35, 2001.
- VIDOTTO, V.: Il recupero delle proprietà ecclesiastiche a Roma prima e dopo il Concordato. In: VIDOTTO, V. (ed.): *Contributi allo studio delle trasformazioni urbane e della proprietà immobiliare a Roma dopo il 1870*. In: *Dimensioni della ricerca storica*, Vol.XVII, Issue 1, 2005.
- WCED-World Commission On Environment And Development: *Our Common Future*. Oxford University Press, Oxford, 1987.
- WHEELER, S.M.: *Planning for Sustainability*. Routledge, New York, 2004.
- WHITE, R.R.: *Building the Ecological City*. Woodhead, Cambridge (UK), 2002.
- WILLIAMS, K., BURTON, E., JENKS, M. (eds): *Achieving Sustainable Urban Form*. Pion Limited, London, 2000.
- YE, L., MANDPE, S., MEYER, P.B.: What is smart growth. Really?. In: *Journal of Planning Literature*, Vol.19, Issue 3, pp. 301–315, 2005.
- ZEGRAS, C.: The Built Environment and Motor Vehicle Ownership & Use: Evidence from Santiago de Chile. In: *Urban Studies*, Vol.47, pp. 1793-1817, 2010.