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Expanding the 'dark side of planning': Governmentality and biopolitics in urban garden planning

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Abstract

This article analyses Bent Flyvbjerg's 'dark side of planning' theory and proposes to increase its critical strength by including, together with ideas of rationality and power, two further theoretical tools: the Foucauldian concepts of governmentality and biopolitics. The potentiality of this inclusion is exemplified by the analysis provided about the influence of 18th-century colonial governmentality on the real rationality of public garden planning in the modern liberal cities of most western European colonising countries. It aims to show that Flyvbjerg's concept of 'real rationality' can be usefully regarded as the product of a broad interpretation of biopolitical technologies, including the disciplining of non-human further than human life, which makes it possible to control the 'uncivilised' instincts of society through public garden planning. This article aims to suggest, that by digging deep into the hidden rationality of planning, even in those cases in which only the progressive face of power is apparently involved, a dark side of planning is unavoidably present in the form of a disciplinary power.

Keywords

Biopolitics, dark side of planning, governmentality, power, public garden planning, rationality

Introduction

In the analysis of the influence of political power on urban planning rationality, Bent Flyvbjerg elaborated his 'dark side of planning' theory in order to provide a theoretical foundation to the practical evidence that spatial planning works as a materialisation of the dominant political agenda; regardless of planners' stated intentions, it displays at the same time both the progressive and the repressive face of power (Flyvbjerg, 1996, 1998,

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2003). Flyvbjerg's theory allows appreciation of the aims and functioning of urban planning practices by exploring the subterranean relationships between politics, science and the art of governing people through spatial arrangement.

Flyvbjerg's genealogical perspective on planning practices stands as a reference point for the present article which aims to suggest a theoretical expansion of the 'dark side of planning' theory by complementing the interplay between power and rationality Flyvbjerg describes with two further Foucauldian concepts: those of governmentality and biopolitics. By introducing governmentality and biopolitics as further descriptive and explicatory tools in the 'dark side of planning' theory, this article suggests a more subtle account of its generation processes can be provided, together with a more critical consideration of the sociopolitical implications of the urban planning activity itself.

In the section 'Exploring rationality and power in the "dark side of planning"', the argumentation moves from the description of Flyvbjerg's analysis of the relationships between power and rationality as they manifest in the 'dark side of planning'. By following Flyvbjerg's line of thought, the article refers (in an oppositional way) to the works of Jurgen Habermas for better contextualising the 'dark side of planning' theory. The section 'Flyvbjerg's Foucault' investigates how Flyvbjerg has adapted Foucault's concept of power, knowledge, rationality and governance to the analysis of planning theory. In this regard, a most relevant point in this article's view is represented by the somehow elusive contrast between Flyvbjerg's implicit suggestion that it might be possible to plan out of the darkness and Foucault's claim that an unalloyed right way to plan will be not possible, as we will never be able to predict all the possible outcomes, effects or implications of planning.

In order to expand this point and dig deep into the critical potentialities of the 'dark side of planning' theory, the section 'Governmentality and biopolitics: expanding the "dark side of planning" theory' introduces this article's reading of the Foucauldian concepts of biopolitics and governmentality as missing points of Flyvbjerg's account; it advances the suggestion that these can contribute to exploring the sociopolitical mechanisms underpinning the real rationality of planning.

The remaining sections attempt to exemplify the opportunity for including governmentality and biopolitics in the 'dark side of planning' theory by providing an interpretation of the influence of colonial governmentality and biopolitics on public garden planning in some large western European cities in the early modern age. First, in light of Foucauldian and postcolonial literature, the section 'From colonial governmentality to urban planning' considers how the tight link between science production and regulatory political power in the colonial age determined the emergence of a distinctive form of colonial governmentality, and how this influenced the planning of urban infrastructures, specifically public gardens in the colonising – and not only in the colonial – countries. Some specific cases are reported to clarify how garden planning can be regarded as a specific example of the general planning theory. Then, the section 'Biopolitics of gardens: the dark side of garden planning' considers how colonial governmentality has been equipped with spatial biopolitical technologies that materialised colonial power and the related rationality into garden design and planning, in the context of the emerging modern liberal cities. In particular, the 'dark side of planning' manifests in the modern public garden with the willingness to control the uncultivated (i.e. potentially revolutionary) instincts of *human* nature via the control of non-human nature.

On the basis of the theoretical exploration and the discussed examples, the concluding section summarises how the introduction of the concept of biopolitics and governmentality can increase the analytical and critical strength of the 'dark side of planning' by thickening the relationship between power and rationality in planning.

Exploring rationality and power in the 'dark side of planning'

While urban planning has generally been regarded as an aiming-for-better activity intended to make people's lives easier, healthier and happier, it is today clear that it is also closely connected with the less progressive aspects of the exercise of power (Dehane and De Cauter, 2008). By critically engaging with the long-lasting philosophical debate on knowledge, truth, spatiality and power (from Plato to Machiavelli and Nietzsche, to the French post-structuralists Derrida and Foucault, to Habermas' critical thinking or Rorty's pragmatism), Flyvbjerg (1988) advances his 'dark side of planning' theory and shows that when directed by a mastering rationality, planning can turn into a tool for the control and disempowerment of social life. The ambivalent nature of planning between progressive reformative intents and oppressive control was also analysed by some planning scholars, notably Oren Yiftachel and Sam Roweis, who developed the 'dark side of planning' theory in their researches about the discrimination of minorities in urban space (Gunder, 2003; Roweis, 1983; Yiftachel, 1995). In particular, Yiftachel (1995), in contrast with the generally accepted view of planning as benign and emancipatory, described the 'dark side of planning' as a conservative force leading to the institutionalisation of a prescriptive planning practice: 'Recent empirical and theoretical work has demonstrated that contrary to conventional wisdom, urban and regional planning is not just a progressive arm of government, but also has the potential for *oppressing* subordinate groups' (Yiftachel, 2001: 117–118).

In Flyvbjerg's (1996) words, the 'dark side of planning' corresponds to 'the domain of power' (Flyvbjerg and Richardson, 2002: 45), and it can be recognised by investigating what *has been done*, rather than what *should be done* in terms of planning; that is, by shifting attention from the naive normativism of a 'formal rationality', to the analysis of real planning rationality (*Realrationalität)* that turns ideals into practice. While the normative rationality is the upfront planning model presented for public scrutiny, the real rationality corresponds to the backstage hidden from public view and often contrasting with the most celebrated aims of advancing democracy, participation, equity or similar (Flyvbjerg, 2003). This last can be detected by considering the relation between rationality and power, and, particularly, the way in which power defines what counts as knowledge and rationality – and, thus, as reality: 'Defining reality by defining rationality is a principal means by which power exerts itself. […] power *defines* what counts as rationality and knowledge, and thereby what counts as reality' (Flyvbjerg, 1998: 227).

By adopting a Foucauldian view, power is conceived by Flyvbjerg as pervasive and dynamic; but, depending on how it is exercised, it is not only restrictive as it can be also empowering (O'Farrell, 2005).

Flyvbjerg elaborates his critique of modern planning by opposing Habermas' to Foucault's view as each other's shadow, and by proposing the second as an antidote to

the failure of the first in recognising that the actual realisation of political rationality largely betrays its ideal prescriptions. In Flyvbjerg's (2000) words,

> Habermas's approach is oriented toward universals, context-independence, and control via constitution writing and institutional development. Foucault focuses his efforts on the local and context-dependent and toward the analysis of strategies and tactics as basis for power struggle. (p. 14)[1]

Macchiavelli's *verità effettuale*, Nietzsche's will of power and Foucault and Derrida's deconstruction of power are convened together by Flyvbjerg to uncover the limit of Habermas' normative discourse ethic and to support a genealogical analysis of modern articulation of planning politics (Flyvbjerg, 2001). Flyvbjerg (2000) contests Habermas' approach by claiming that

> The basic weakness of Habermas's project is its lack of agreement between ideal theory and real rationality […], and it is rooted in an insufficient conception of power.[…] In short, Habermas lacks the kind of concrete understanding of relations of power, which is needed for political change. (pp. 4–5)

On the contrary, Flyvbjerg (2000; Tsey, 2010) reminds us that Foucault, while sitting with Habermas on the side of rationalism, opposes ideals as the adequate answer to the request for normative rules of action and warns that this view should never prevent the analysis of how rationality works in practice, that is, the *real* rationality.

The way in which rationality takes a spatial form and its relationship with power does not only affect the planning domain but also the very theoretical foundation and functioning of modern liberal States and the possibility for an efficient and effective (thus, rational) political planning.

Flyvbjerg's Foucault

As Flyvbjerg thinks that we need to consider the concrete contingencies if we want to discover the rationality beneath them and the substantive micro-politics they originate, Foucault's contextualism can be of better help than Habermas' universalism. Flyvbjerg claims that Foucault's work advances an analytics of power that makes it possible to appreciate the real rationality of the 'dark side of planning' and to make 'effective understanding […] and effective action possible, something planners and planning theorists have typically said they want' (Flyvbjerg and Richardson, 2002: 45).

By particularly referring to the works *Madness and Civilization* (1967) and *Discipline and Punish* (1979), Flyvbjerg and Richardson (2002) point out that Foucault helps understand how the rise of rationality has been used as a legitimation of power rather than as a challenge to it (Jones and Porter, 1994) because '"rationality is penetrated by power", and the dynamic between the two is critical in understanding what policy is about' (Flyvbjerg and Richardson, 2002: 50). In their view, one of the principal legacies of Foucault's work is the capability to understand how power works in the practical realisation of *Realpolitik* and *Realrationalität* and how this is challenged in specific contexts. From *Discipline and Punish*, for instance, they affirm that one can understand how

different planning policies construct their own spatial structures, and produce different planning options that embody distinctive views of society:

> This idea that spaces are socially constructed, and that many spaces may co-exist within the same physical space is an important one. It suggests the need to analyse how discourses and strategies of inclusion and exclusion are connected with particular spaces. (Flyvbjerg and Richardson, 2002: 57)

Different spatialities (thus, different plans), however, always involve power – still in diverse forms (empowering, disempowering, oppressive, etc.) (Flyvbjerg and Richardson, 2002); power, in its turn, defines reality by creating physical, economic, ecological and social spaces through (context-dependent) rationalities (Flyvbjerg, 2003), as Foucault's examples of the panopticon explains (Flyvbjerg and Richardson, 2002: 55; Foucault, 1975). The spatialisation of rationality is the main Foucauldian contribution to planning theory, Flyvbjerg claims, because it requires answering the question 'what has been actually done', before turning to the normative – and secondary – question 'what should be done'.

Despite his enthusiasm for Foucault's work, it should be noted that differently from Foucault, Flyvbjerg seems to believe that it is possible to plan out of the dark side. He does not think that a planning activity with no dark side *actually* exists, but that we can unveil the pervasive relation between power and rationality in every specific context, and that this can lead us, given the appropriate conditions and willingness, to plan with no oppressive or coercive intents (Flyvbjerg and Richardson, 2002: 61). The possibility for planning on this 'light side' does not require ignoring or denying the role of power; rather, it is inspired by the very complex interpretation of power Foucault offers. In fact, while Foucault has been charged as the philosopher who describes the most oppressive side of power, he actually thought that however terrible the governing system could be, there would always be forms of disobedience and oppositional resistance (Foucault, 1986: 60–61). By working with this, Flyvbjerg foresees the possibility for including power as a changing force in planning:

> Exploring the dark side of planning theory offers more than a negative, oppressive confirmation of our inability to make a difference. It suggests that we can do planning in a constructive empowering way, but that we cannot do this by avoiding power relations. (Flyvbjerg and Richardson, 2002: 62)

At the same time, however, this statement also clearly signals the distance of Flyvbjerg from Foucault. While Flyvbjerg emphasises the possibility for urban planning and design to determine social conditions and offers the choice to plan at the dark or at the light side, Foucault claims that it is not in the structure of things to guarantee the exercise of freedom or oppression as this pertains to the social practice of liberty. Planning per se – particularly urban planning – in Foucault's (1986) view cannot have effects on people's liberation if not joined with people's practices of liberation; he explains that

> there may, in fact, always be a certain number of projects whose aim is to modify some constraints, to loosen, or even to break them, but none of these projects can, simply by its

> nature, assure that people will have liberty automatically, that it will be established by the project itself […] I think that [architecture] can and does produce positive effects when the liberating intentions of the architect coincides with the real practice of people in the exercise of their freedom. (pp. 245–246)

The political role of architecture and planning, according to Foucault (1986), became explicit from the 18th century onward when the goal of governing societies was pursued by the development of appropriate infrastructures for keeping a city in order, as a precondition for granting decent sanitary conditions, avoiding epidemics and social revolts (p. 243). From that time, every discussion of politics as the art of government of human societies necessarily included a chapter on urbanism, and politicians started to give attention to architectural techniques and their effects, because 'the cities, with the problems that they raised, and the particular forms that they took, served as a the model for the governmental rationality that was to apply to the whole of the territory' (Foucault, 1986: 241).

Governmentality and biopolitics: expanding the 'dark side of planning' theory

While Flyvbjerg has expanded Foucault's considerations on power and rationality in his analysis of the real rationality of planning, the analytic and critical potentiality of the 'dark side of planning' theory could probably be increased by taking into account the Foucauldian concepts of governance and biopolitics. These can be of help in exploring how power and rationality actually entwine in the government of population *through* spatial settings.

Governmentality was presented differently by Foucault himself in time (see Osborne and Rose, 1999; Wells, 2008); however, in general, it can be defined as a means of policing a society, 'a plane of thinking and acting concerned with the authoritative regulation of conduct towards particular objectives' (Osborne and Rose, 1999: 737). In order to explore the functioning of power, it is necessary to consider the specific historical and geographical contexts where it materialises through the establishment of governmentality, that is, a process that – while controlling things and people up to the finest detail – is not necessarily repressive or predatory in kind (Crampton and Elden, 2007; Elden, 2001). What is particularly relevant for the 'dark side of planning' is that governmentality works as a real rationality immanent to micro-politics of power (Dean, 1999; Foucault, 2007;) and generated by the reciprocal constitution of power and knowledge – otherwise said, from the relation between the political order and the rationality underpinning it (Foucault, 1990). It entails the existence of diffuse control and disciplining technologies aimed at shaping people's mentality (Pløger, 2008) and, by enlarging the classic sphere of government (conventionally limited to State politics alone), it requires a broader understanding of power as not merely pertaining to the State but also emanating from heterogeneous social formations – notably the self-government of individual and collective behaviour (Huxley, 2006; Rose, 1999).

In this framework, knowledge production is linked with power production because science discourses are progressively internalised in collective mentality and constitute

the terrain for the emergence of planning rationality. In fact, Foucault (1991) reminds, governmentality results 'on the one hand, in the formation of a whole series of specific governmental apparatuses, and on the other, in the development of a whole complex of *savoirs*' (pp. 102–103). *Savoir* (knowledge) does not only provide a description of reality but also shapes desires, aspirations, roles, needs of people and direct social behaviours (Foucault, 1998); thus, science interweaves government because it allows the creation of a discursive field in which the exercise of power is interpreted as a rational act that contributes to the establishment of a specific governmentality (Lemke, 2000).

In Foucault's (1982) analysis, the concept of governmentality emerges from a broader exploration of the different forms power may assume and of the 'rationalization of governmental practice in the exercise of political sovereignty' (Foucault in Sennelart, 2008: 168). Among them, government is a mechanism for systematising, stabilising and regulating social relationships and for exploiting social asymmetries. It refers to regulated modes of powers that 'go beyond the spontaneous exercise of power over the others, following a specific form of reasoning (a 'rationality') which defines the *telos* of action or the adequate means to achieve it' (Lemke, 2000: 5). Different practices of government are widely dispersed throughout society; coercive forms (norms to be followed, surveillance mechanisms, etc.) coexist with consensual forms of government that work as mentality guidance by generating a broad array of 'microphysics of power' (Foucault, 1991). These do not pertain to

> the acts that were permitted and forbidden but with the feelings represented, the thoughts, the desires one might experience, the drives to seek within the self any hidden feeling, any movement of the soul, any desire disguised under illusory forms. (Foucault, 1982: 16)

Microphysics of power that operate as 'technologies of the self' at the level of subjectivity refrain the 'technologies of domination' working at the macro-level of societal control; from their encounter, governmentality originates (Foucault, 1982; Foucault, 1984). This suggests that governmentality entails two principal means of population control, marking the emergence of biopolitics (Rabinow, 1989): the disciplining of individual bodies and the ordering of things, spaces and events entwined with social life (Foucault, 1991).

In his lectures at the *Collège de France*, Foucault (2003) presented biopolitics as power's hold over life and the basic trait of modern politics (p. 243) comprising a set of techniques for disciplining, keeping under surveillance, training or punishing individual bodies (Genel, 2004). The extension of power over life has been accomplished with the adoption of interwoven disciplinary and regulatory techniques (including for instance, rules on hygiene, insurance and pension systems, town planning, and child care services) (Foucault, 2003). These made possible the governing of population by signalling that life is no longer inaccessible to intervention:

> To say that power took possession of life, in the nineteenth century, is to say that it has, thanks to the play of technologies of discipline on the one hand and technologies of regulation on the other, succeeded in covering the whole surface that lies between the organic and the biological, between the body and population. (Foucault, 2003: 253)

In fact, together with the permanence of premodern disciplinary techniques used for exerting power upon individual bodies (which Foucault calls 'anatomo-politics'), from the 19th century onward, regulatory techniques have also been applied over collective life in order to control the rate of reproduction, fertility, longevity, the mortality rate and similar metrics of life (Burchell, 1991; Foucault, 2003: 242; Legg, 2005). Foucault (2003) explains that the transition from the use of disciplinary techniques of body control in 17th-century governmentality, to the 18th-century liberal governmentality, through a biopolitics of populations and environments is determined by the attempt at ruling

> a multiplicity of men, not to the extent that they are nothing more than their individual bodies, but to the extent that they form, on the contrary, a global mass that is affected by overall processes characteristic of birth, death, production, illness, and so on. (p. 242)

The very possibility for specific governmentalities to emerge and establish is, thus, regarded, in the present work's understanding of Foucault's suggestions, as determined by the exertion of both the anatomo-politics and the biopolitical techniques for population control. These rely on the tied relationship between humans and their environment:

> This includes the direct effects of the geographical, climatic, or hydrographic environment […]. And also the problem of the environment to the extent that it is not a natural environment, that has been created by the population and therefore has effects on that population'. (Foucault, 2003: 245)

Still recognising that the extension of power over life determines an overlap of the environmental and social domains, Foucault did not apply the idea of biopolitics to non-human life.

However, in line with some recent cultural geographical interpretations (Hinchliffe and Bingham, 2008; Murdoch, 2006; Whatmore, 2002), a broader understanding of biopolitics including non-human life can probably be useful in complementing the 'dark side of planning' theory. This broader interpretation of biopolitics should include plants, animals, the environment and so on as objects of biopolitical control deeply conditioned by technologies of power (Murdoch, 2006), rather than as mere background for human-related biopolitics. Urban planning plays a most relevant role in the exercise of this broad conception of biopolitics because space is intrinsically entangled with the politics of life regulation (Huxley, 2008: 1647). The attention towards the technologies of power affecting the biological aspects of human populations and the environment provide a useful standpoint for considering the emergence and functioning of Flyvbjerg's real rationality of planning.

By introducing the concept of governmentality and biopolitics in the 'dark side of planning' theory, it is possible to appreciate how power materialises in space and how the spatial disposition of things signifies specific rationalities; this provides a detailed account of the transformative power of knowledge-production processes over collective life via the mediation of political government and of its relationship with spatial planning. Planning activity, also when directed by (apparently) progressive aims, such as in the case of the setting up of public gardens (which are commonly regarded as innocent and unproblematic), actually presents a 'dark side' that materialises in the intentional

arrangement of space and things for regulating and controlling society life (Legg, 2007b; Nichols, 2010). By building upon the evidences reported in postcolonial literature, the example presented in the following paragraphs is exactly intended to show how:

- A specific governmentality, namely colonial governmentality, determined the use of multiple biopolitical technologies that, in their turn, embodied the relation between power and rationality.
- The introduction of the concepts of governmentality and biopolitics can be useful to complementing rationality and power in revealing the 'dark side of planning' in the realisation of the modern public gardens in most European cities.

From colonial governmentality to urban planning

In the 18th century, as Foucault (1986: 246) noted, architecture and planning was recognised as having a crucial role in the institutional and social innovation processes brought about by modern States in most European countries (Osborne and Rose, 1999). The urban government was, in fact, associated with the possibility of imposing an order on the population live and the dangers, immoralities and risks it was subject to (Barry et al., 1996). From the 19th century onward, the biopolitical techniques aimed at controlling population have been supported by the scientific evidences produced by statisticians, engineers, medical specialists, biologists and social scientists, gathering together information that may lead to effective governing strategies (Barry et al., 1996). Vibrant and densely populated cities turned to be privileged loci where newly acquired knowledge did not only require disciplinary or repressive measures but also underpinned liberal government strategies 'intended to make urban existence the site of a certain regulated and civilised' (Osborne and Rose, 1999: 740) society. The liberal governmentality foresees the creation of dedicated areas for specific social activities (coffee, theatres and gardens being among them) in the cities (Hetherington, 1997; Hunt, 1996; Rabinow, 1989) where individual liberty could be enjoyed and sociability and moral codes created (Joyce, 2003; Osborn and Rose, 1996). Urban gardens, in particular, represented a space where both public and private life was deployed as an intrinsic part of a liberal governmentality,[2] and it can be claimed that they acted as a showcase for government political programmes and as a practical tool for directing citizens' desires, bodily experience, knowledge and mind-setting.

Colonial governmentality (Jazeel, 2009; Scott, 1995) set forth an understanding of the colonial-based articulation of power over bodies, spaces and mentalities that made normal and possible, European domination and the emergence of new forms of subjectivity (Agrawal, 2005; Pratt, 1992; Rabinow, 1989; Tropp, 2006).[3] Actually Foucault failed to consider that the 'fundamental aspects of the rationalities, strategies, plans and practices of discipline and government in Europe were the consequences of inventions and experiments in the government of the "colonial other"'.(Huxley, 2006: 1652) However, postcolonial literature filled this gap (Morton, 2003; Spivak, 1988) with a wealth of researches that considered the making and regulation of both colonial and European cities as a product of the colonial governmentality (Huxley, 2008; Legg, 2007a; Robinson, 1996). This was equipped with dedicated tools, procedures and rules

for making of space and the environment both the object and the means of colonial governmentality (Huxley, 2006).

There is now a growing number of researches documenting how, largely inspired by the romantic narrative (Driver, 1988) and the positivist faith in scientific progress, colonial scientists mobilised things, people and ideas through remote channels (Clayton, 2004), penetrated unexplored regions of the world and generated a process of ecological imperialism (Crosby, 1986) when colonisers, by bringing with them a biota *portmanteau* (including diseases, pests and seeds), induced a deep transformation in colonial ecologies (MacKenzie, 1997). In some cases, they were economically supported by the colonial administrations as they collected profitable plants (deemed valuable for medical, economic and military purposes) (Headrick, 1981; Padge, 1994; Schiebinger, 2004), and some sought fame and fortune – although actually many failed to receive reward for their tireless efforts (Schiebinger and Swan, 2008; Thomas and Eves, 1999). Different routes were traced for specimen collection aimed at establishing industrial plantation in the colonial and imperial possessions, and those transferred to Europe for enriching private gardens (Nigel, 1998); an international system of institutions and infrastructures, such as routes, botanical gardens, laboratories and cabinets, enacted plant bioprospecting and transportation (Gorer, 1980; Klemun, 2012; PlantExplorer, 2013; Rigby, 1998) from the colonies to Europe (Lane, 1950; Law, 1986; Waters, 1958). Techniques, procedures and devices played a key role in defining the new material and semiotic order of the world (Bennett, 2004; Law, 1986; Wise and Wise, 2004) that, instead of being distinct from the political domain, needs to be regarded as 'complex relays and linkages that tie techniques of conduct into specific relations with the concerns of government' (Barry et al., 1996: 13).

The 'discovery craze' was the first step towards the emergence of a colonial science whose scientific truths and natural laws were largely functional to the government of the imperial territories; while empires themselves were legitimated as part of the natural providential order (Livingstone, 1953). Geographical and natural sciences became the 'tools of empire' (Headrick, 1981); by drawing the map of 'unknown' places and plants (Gunther, 1945; MacLeod, 1996), they enabled at the same time an ideological and political process of inclusion and exclusion (by making awkward exotic creatures fitting into the Western political and moral order), of name giving and place inscription into the dominant masterframe (Berthon and Robinson, 1991; Lafuente and Valverde, 2004; Said, 1978; Schiebinger, 2004) differently performed by different governments with a key role played by the geographical societies (Clayton, 2002; Withers, 2007).

As 'power over space and knowledge about space proceeded together' (Sluyter, 2002: 216), techno-scientific rationality allowed the emergence of a colonial governmentality (Agrawal, 2005) that, in its turn, took a material and spatial form thanks to planning practices over colonial territories (Bishop et al., 2003; Holston, 1989; Perera, 1998, 2007; Perera and Tang, 2007; Ross and Telkamp, 1985). This determined a sort of dependency of European modern planning rationalities from the colonial governmentality and colonial urban development theory elaborated in the peripheries of the empire (King, 1976, 1990; Porter, 2010), as 'modern planning is constituted within colonialism itself' (Porter, 2010: 3).

The transposition of colonial planning competences in European contexts resulted in the attempt to overcome the constraints of urban space by including, for instance, large public spaces (particularly squares, gardens or plots reserved for public purposes) in the city plan, and in considering the city as a machine 'for producing the social field rather than just a spatial milieu for already immanent social processes' (Osborne and Rose, 1999: 747). To this end, public gardens occupied a primary role in both the colonies (Home, 1997; Favretti, 1972) and the home countries, where displayed plants, animals and technologies (such as fountains or temples) reframed the scientific knowledge of the time and its connection with the political authorities (Osborne and Rose, 1999).

Biopolitics of gardens: the dark side of garden planning

As the architecture of medieval churches aimed to introduce uneducated people to the Christian cosmology, urban gardens can be equally regarded as the 'churches' of modern urban life. Through their being public spaces where social, personal and political life was deployed, public gardens displayed the modern, liberal and positivist (still fashioned with some romantic features) worldview. They transferred the essence of colonial governmentality in the very centre of the colonial empires, by advancing – thanks to the lessons learned in centuries of scientific and social exploration and experimentation in the colonies – a broad form of biopolitics, including policing over human and non-humans as effective means for the realisation of government's aims. Jason Byrne and Jennifer Wolch (2009) expand the point by explaining that park reformers in the 19th century describe urban parks as biological 'machine[s] to transform a flawed society' (p. 7). In a deterministic mood, urban planners thought that exposure to the right kind of environment could make people healthy, morally proper and socially responsible, and thus,

> Park reformers […] imbued parks with the power to overcome anarchy, immorality, crime and indolence […], and parks became in effect both the 'lungs' and 'conscience of the city' […]. Social mixing, moral uplift and physical fitness (both individual bodies and how those bodies 'fit' within society) became principle roles of parks […]. But social control remained the primary impetus behind park-making. (Byrne and Wolch, 2009: 7–8)

While planned as places for leisure, most public gardens in modern European cities were, in fact, used as biopolitical tools for disciplining the physical and material life of individual citizens by disciplining the non-human life they hosted. While celebrating both social order and governmental values, public garden planning (including design and functioning roles) regulated individual bodies and behaviours in the social space (dressing, time-organisation, class relationship, games, etc.) and educated individual minds. They can, thus, be regarded as spatial devices for controlling and imposing an order over the whole society via the materialisation of scientific colonial planning rationalities (Bennett, 1997; Barnett, 1998).

Biopolitical control over citizens' bodies, thought and behaviours required, first, control over non-human life in the urban environment. Not incidentally, most of the public parks in modern cities were former botanical gardens, such as the Hortus Botanicus in

Amsterdam, 1638; the Botanical Garden in Berlin, 1672; and the University of Copenhagen Botanical Garden, 1600, to name but a few (Johnson, 2011). At the beginning of the 19th century, there were about 600 botanical gardens worldwide (Turner, 2010), including in colonising and colonial lands (Grove, 1995), acting as cabinets for scientific experiments for a large number of international research societies interested in analysing plant properties and their possible uses (e.g. the Kew Royal Botanical Gardens, established in 1759), as dedicated places for *ex situ* conservation of plants and animals, and as loci for knowledge democratisation and social reform (Rutherford, 2007). They actually worked as complex devices practically translating knowledge into a form of power able to gather, display, scrutinise, exploit and modify nature – and, thus, symbolically and 'materially' supporting liberal governmentality (Bennett, 2004: 5). The rhetoric of liberal philanthropy, of class integration and scientific knowledge diffusion, led to open most of governors or by wealthy private citizens' gardens to the public and to establish public gardens *ex novo*, with the formal intent (or, under the formal rationality) of providing townspeople with recreation and fresh air in rapidly growing urban areas. For instance, in 1767, the Austrian emperor opened the Prater to the public as a *Volksgarten* aimed at praising both nature and the nation; in Berlin, the Friedrichshain was granted to citizens from the crown in 1846 in order to sustain the growing spirit of citizenship, and the Tiertegarten was donated by the Prussian King Friedrich I in 1830 and enriched with patriotic rooms and war memorabilia (Bartels, 1982). There were similar occurrences in London where St. James's Park was refashioned under the reign of Charles II in 1871; Regent's Park was provided for the north part of the city in 1835; and a total area of 1200 acres was covered by Hyde Park which become a venue for national celebration in 1814 (Van Zuylen, 1995).

Different kinds of gardens materialised different planning rationality; the 18th-century ordered botanical gardens, for instance, mainly reflected mercantilist governmentality, while the leisure gardens of the 19th century marked the affirmation of liberal governmentality. While botanical garden biopolitics mainly consisted of the categorisation and imposition of order in the micro-cosmos of the garden which symbolised the order of the world; the biopolitics of leisure gardens made them stages for displaying plants, infrastructures and animals, so to fuel specific moral, political and social behaviours. This distinction, however, is not always so neat, as often, for instance, botanical gardens were transformed into leisure gardens (e.g. the Jardin de Luxembourg in Paris).

In general, the liberal strategy of science democratisation in the 19th century hid the reality of 'knowledge as power' beyond the ideology of 'knowledge as progress', because owners, garden planners and botanists in the material arrangement of space transferred specific ideas about social order and culture intended for working-class pacification and the maintenance of ruling-class exclusivity (Kociumbas, 1993). For instance, Andrew Goss (2009) explains how the development of Dutch colonialism went in hand with the development of the civilising mission ideology supported by so-called 'pure science', that is, a scientific knowledge that supposedly transcended ideology and politics but actually allowed the administrative apparatuses to continue repression and dominance under the flag of a decent colonialism. So, in the temple of botanical science, the *Buitenzorg Botanical Gardens*, under the direction of Jacob Christiaan Koningsberger,

scientists produced universal knowledge that was actually intended to support colonial government's intents (Goss, 2009).

Endowed with such a role in the constituting process of modern urban societies, garden planning produces a transformation of nature truth into deliverable rationality, thus into social metaphors and rules (governmentality), and finally into spatial control over non-human life and, by this, over single citizens' lives (biopolitics). As Keith Hetherington (1997) suggests,

> To be able to order space was to be able to order society. The architect was the great designer, who, with knowledge of the classical arts, was able to translate ideas about the ordering of space into the ordering of society. […] [N]ature becomes an ordered system that can be classified and represented and then applied to society. We can […] detect a similar theme in the landscaped gardens and parklands of Humphrey Repton and especially Lancelot 'Capability' Brown; there was a very definite attempt to make nature appear, in the form of parklands, like an ordered garden. (p. 62)

Gardens of 18th century were intended to recreate the experience and the wonder of discovery together with the celebration of local nature and its intimate relationship with people's souls (Wise and Wise, 2004). They aimed to forge the character of modern citizens by inducing them to discover the potentialities of (apparently unplanned) public space, as the architect 'Capability' Brown suggested (Turner, 2010); romantic feeling (love for wilderness, irregularity and unadorned nature) translated into the planning of public gardens (meadows gradually meshing with woods, curving paths, unexpected views and diversity of flora and fauna), for example, Jardin des Plantes in Paris established in 1795 (Gothein, 1913).[4]

One century later, gardens progressively turned into visible affirmations of urban health and social order in the dense industrial cities oppressed by the bad air and the constriction of bodies (Taylor, 1988). The love for flowers and plants instilled in working-class people was intended to provide them with comfort, to offer their bodies an unconstrained space to move, and by doing this, to educate them about their role and duties. Architect John Claudius Loudon, for instance, explicitly and for the first time advocated the opening of private gardens to the public as a means of social reform (Byrne and Wolch, 2009), because gardens functioned as special zones for the articulation of societal control and for taming social conflict (Chadwick, 1966). In fact, as George Mckay highlights, by reporting an anonymous quotation of a British citizen, gardens were planned as tools for training and disciplining people with both their simple presence and distinctive design:

> the more people have the possibility to enjoy plants, and the more they delight in them, the happier and the better they will be; we will let them into Kew Gardens unwatched […]; we build […] Crystal Palaces, and we make for them parks and gardens, where they may walk unrestrained […] And what is the consequence of this? […] We have had no Revolution. (Anonymous, 1854 in McKay, 2011: 12)

Even in Paris, public gardens, such as the Bois de Boulogne (1852), Chaumont (1867) and the Montsouris (1878), planned under the direction of the Baron of Haussmann

(1890), were intended to preserve the illusion of social harmony[5] based on the belief that beauty and amusement may alleviate social tensions and work as counterrevolutionary strategy. Public garden planning became a tool for materialising the new society to come (a society of individuals whose rights and freedom were guaranteed by the State – as far as they were citizens of the State, scientifically and technically educated, self-interested, normalised by the nation-state bureaucracy and integrated in the democratic order of mass society) via subtle and diffuse biopolitical technologies.

The control of the ecologies of plants in the space of the parks was metaphorically resonant with the liberal society's capability for determining people's minds and pleasures not only in a disciplinary way, but by apparently granting everybody the possibility to fit into the social position he was destined to. For instance, the *gardenesque* style displayed exotic plants (kalmias, rhododendrons, camellias, oaks, magnolias, acacias, etc.) in dedicated areas of the public gardens where they could live and prosper (Londei, 1982; Loudon, 1840). Exotic species were not valued per se, rather they were valued *as discovered* by science and *domesticated* by the technical expertise of Western countries, and contributed to celebrating the rationality of the colonial sciences by putting forward control over diverse forms of life (Tachibana et al., 2004). This makes particularly evident the relation between the colonial practices of confinement and segregation of indigenous people in the colonies, the confinement of exotic plants in public gardens and the control of working-class people in European liberal society (Osborne and Rose, 1999: 746). For instance, as Colin Ward (2002) reports, Loudon, in planning Derby's Arboretum, explicitly emphasised a polished and manicured environment by grouping together indigenous and exotic plants. This was planned on the ideal of an educational garden that would cultivate the lower classes and allow the factory workers to enjoy the beauty of nature in collaboration with the factory owners.[6] Ward (2002) also reports the strict social class separation policy that was particularly evident in the disposition of available spaces for different classes to enjoy (and in the prohibitive admission rules) in Hyde Park, at the time of the first international exhibition in the Crystal Palace. This exemplifies the transformation of public gardens:

> The public park was beginning to be seen by the upper-middle class as a leisure environment of the lower classes which in time began to transform its function from a place for the upper-middle class to observe nature to an environment in which this class would observe the workers and their families through the occlusive windows of their carriages. (Ward, 2002: para. 2)

The real rationality underpinning the urban public garden planning in most of the major European cities at the beginning of the modern age can, thus, be identified as the outcome of a multilayered and extended interplay between colonial science (on its turn produced by the mutual support between governments' economic, diplomatic interests and international scientific community, with its own rules, tools and dogmas) and the geographically and temporally differentiated manifestations of power, ranging from the colonial domination to the liberal governmentality and materialising in devices, procedures and techniques that conditioned the material and symbolic character of human and non-human life, and their relationships.

Conclusion

The article is intended to exemplify how the introduction of the Foucauldian concepts of governmentality and biopolitics can increase the explanatory potentiality of Flyvbjerg's understanding of real rationality of planning as emerging from the relation between rationality and power.

The examples of public gardens, briefly described in the previous paragraphs, moves from the often underestimated claim that 18th-century colonial governmentality – and its related biopolitical technologies – played a crucial role in urban planning in early modern Europe. Public gardens worked as showcases for the liberal governments' aims, linking together metropolis and peripheries within complex and contextualised power rationalities. The affirmation of colonial science required the mobilisation of spatial concepts and metaphors centrally implicated in the epistemological capture and physical movement and (re)arrangement of (samples of) nature; these symbolic and material processes lead to the emergence of a colonial governmentality that backgrounded the real rationality of modern garden planning in Europe. The real rationality of modern urban planning became evident when considering the biopolitical technologies for individual life regulation and social control (including plant selection and disposition, ecological conditions control, garden regulatory norms, etc.) adopted in the public gardens planning.

The theoretical analysis and the long example presented suggest two general conclusions on how the notion of governmentality can expand Flyvbjerg's 'dark side of planning' theory.

First, while confirming Flyvbjerg's idea that power influences rationality in planning, this article adds that, at the same time, dominant scientific rationalities (i.e. the outcome of formalised mainstream knowledge-production processes) can be instrumentally adopted to legitimate government power. This is evident – by broadening Flyvbjerg's account – in the interaction between power and knowledge enacted by the emergence of a distinctive governmentality (i.e. the conduct of people's conducts) determined by the interaction between knowledge-generating and government apparatuses.

Second, the example suggests that by digging dip into the real rationality of planning, the possibility for planning on the 'light side' are likely to vanish because, even in those cases where there is apparently no evidence of the influence of disciplinary power over planning activities, a number of microphysics of power are nonetheless in action and affect planning rationality. In fact, the 'dark side of planning' does not merely emerge from the influence of power over rationality (and thus is, almost in theory, controllable), but it also emerges from the more pervasive and multilayered encounters between the technologies of domination and the technologies of self (i.e. governmentality) and from the spatial and material exertion of power over life (i.e. biopolitics).

With the introduction of more detailed Foucauldian insights into Flyvbjerg's theory, the distinction between rationality and *real* rationality of planning becomes fuzzy because a rationality immune from power influences and distinct from the power-laden real rationality is actually impossible. It remains a regulatory ideal with no effectuality and, thus, with no concrete understanding – which is fundamental for producing political change.

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Notes

1. Flyvbjerg acknowledges that Habermas himself recognised that the modernity project largely failed in its practical realisation; however, he does not want to abandon the project of communicative rationality as he found the opposite relativism or contextualism approaches even more problematic.
2. On this point, it is worth mentioning that Foucault (1998) never referred to gardens in terms of governmentality or biopolitics; however, they were mentioned in his contributions about heterotopias as places that escape mundane time and space and gather together different times and places simultaneously (Dehane and De Cauter, 2008). However, while an heterotopian conception of gardens is definitely pertinent for describing the formal rationality of garden planning overtly celebrated in most of the colonial romantic imaginary (Driver and Martins, 2005; Von Humboldt, 1849), this article is mainly interested in the real rationality that has made public gardens a tool for biopolitical governmentality (Whatmore, 2002).
3. It needs to be acknowledged, however, that the relevant literature disagrees on whether or not this can be regarded as a mere 'tropicalisation' of Western governmentality, or its fundamental dislocation developing in violation of 'the liberal conception that the government was part of a complex domain of dense, opaque, and autonomous interests that it only harmonized and secured with law and liberty' (Prakash, 1999: 125–126).
4. The real rationality underpinning romantic garden planning is described by science historians Norton and Elaine Wise (2004) in their analysis of the influence of the Prussian empire's feeling, just after the defeat of Napoleon, on the public garden drawings:

   > With the allied victory over Napoleon, Prussia turned sharply from France toward England for its model of economic power and political freedom. One highly visible aspect of that turn was the refashioning of royal gardens and parks. […] Natural shapes replaced the rigors of geometry as winding paths replaced straight avenues, variety in colour and texture replaced regimented rows of sharply pruned trees and shrubs, and free-formed meadows appeared where mowed lawn had been. Although aspects of the landscape style already existed […], it had taken on a new significance in Prussia following the war of independence, […] by citizens who saw it opening a new era of political liberalism. (p. 118)

5. In 1871, the commune of Paris made this illusion evident as such by staging a reconquest of the city by the greater part of the population who had been driven out to the suburbs by Haussmann's redevelopment scheme.
6. His intent, however, was dismissed by Derby's upper-middle class desire to segregate itself from the city's workers. As a consequence, while formally open to the public, restrictive and exclusivist access rules, utilisation norms and space availability kept classes physically and symbolically separated and represented an effective means for working-class control (Ward, 2013).

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