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Urban density after Jane Jacobs: the crucial role of diversity and emergence

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Abstract

Background: In the early part of the twentieth century, planning theory and practice always voiced strong opposition to density. The error of this insistence was persuasively argued by Jane Jacobs in the 1960s. Subsequently, planning theory and practice came to recognise the importance of density, but this return to favour requires remaining constantly alert to the possible dangers and pitfalls.

Methods: Critically considering the traditional and contemporary urban planning literature and the empirical evidence in the recent economic and geographical research, this article investigates the whys and wherefores of density in urban planning. It addresses two main questions: Is urban density really desirable (and why)? Is it effectively manageable (and how)?

Results: Density per se is meaningless unless it is a tool or condition for achieving something further. And even if the instrumental function of density were to be acknowledged, it is crucial to take into account that density is not solely (or merely) a tool which—in certain conditions—can be useful in reducing commute times and minimising the encroachment on undeveloped land. Its primary advantage concerns favouring the concentrated diverse admix of human preferences, tastes, abilities, know-how, uses, activities, and so forth.

Conclusions: After having expressly laboured to avoid it for so long, the aim is not to create density directly, but to open the door and allow density to happen in our cities, thanks to more abstract and general planning rules.

Background

In the early part of the twentieth century, planning theory and practice always voiced strong opposition to (building/population) density. The error of this insistence was persuasively argued by Jane Jacobs. Indeed, many current movements that recognise the ideal of the so-called *compact city* have rediscovered the advantages of density, and some have even made it their clarion call. Yet there are two caveats to bear in mind if we intend to prevent this new fad for density from losing its way and failing to grasp Jacobs' lesson. First of all, it is vital to realise that density per se is meaningless unless it is a tool or condition for achieving something further. Density is not solely a means to reduce commute times and address other sustainability issues. Its primary advantage concerns favouring the socially diverse admix of human preferences, interpersonal relations, abilities, uses, activities, etc. In second

place, the aim is not to create density directly in our cities,¹ but to open the door and allow it to happen through the application of a more abstract and general set of planning rules that give greater leeway for experimentation.

The article is organised as follows: the first section considers the pitfalls of traditional urban planning and its anti-density agenda; the second section deals with the risks of current density-oriented planning approaches and suggests a new regulatory approach; the third section summarises the main findings.

Traditional urban planning and the anti-density agenda: the pitfalls

During the twentieth century, a great deal of planning theory and practice was strongly opposed to density in the urban context. This was largely due to the fact that at

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¹ The term city is used, in this article in the classical-Jacobsian meaning. A certain idea of the city is therefore assumed here both in a functional sense and as a desirable reality.

the beginning of the 1900s many large cities found themselves with boroughs that suffered from urban blight. These boroughs were characterised by three features: large numbers of persons per acre; large numbers of dwellings per acre; the overcrowding of dwellings (with too many people per room).²

Many planners failed to draw due distinctions between these features and, as Jane Jacobs observes (1961), they deplored them equally. Despite its genuine concern for the living conditions of the inhabitants of these boroughs, the profession's indiscriminate antipathy to density was a sign of a lack of focus. As Jacobs (1961/1993: 288) notes: the development of modern city planning “has been emotionally based on a glum reluctance to accept city concentrations of people as desirable, and this negative emotion about city concentrations of people has helped deaden planning intellectually.”

Added to this was the equally misguided hostility toward any mixing of urban functions and uses. As a consequence, a sort of anti-urban approach began to see an outright threat in all forms of human concentration and mingling of functions. “City air” no longer “makes you free” (as claimed by a famous medieval maxim),³ instead, the city was perceived as a wicked, unhealthy place.⁴ As Rosenberg (1966: 6) observed in the 1960s: “It is axiomatic with western town planners that the higher the densities, the lower the standards.”

To sum up: “Much of the concern with density in planning and other related fields has been over high urban density and its assumed negative effect on the quality of life of urban residents. The city has historically been perceived to be a place of overcrowding, noise, dirt, crime, poverty, disease, and so forth” (Churchman 1999: 392).

Taking this as a point of departure, in the course of the twentieth century considerable efforts were made to reduce urban density wherever possible, and to separate the various uses (housing, commerce, industry, etc.) through the application of a rigid type of mono-functional zoning.

Also at the regional level, an analogous approach sought to de-concentrate city activities and inhabitants. In Great Britain this was the hallmark of the movement that spawned the *garden cities* conceived by Howard (1902). The influence of Raymond Unwin was also crucial in this regard. In one of his best-known works he sought to demonstrate that reducing the “overcrowding

of building upon the land” was both desirable and economically viable (Unwin 1912). In the United States there emerged a similar movement whose most influential exponents—usually known as *Decentrists*—included Mumford (1938), Stein (1957), Bauer (1956) and Henry Wright. “They endorsed enthusiastically Howard’s view that cities should be thinned-out and their populations dispersed into smaller towns” (Broadbent 1990: 152). At base, the decentrists were “antiurban” (Graham 2016).⁵

In his reinterpretation and eulogy of Howard’s work, Mumford (1938: 397) for instance stated that:

“Not merely did Howard seek to eliminate the private landlord: he eliminated the temptation to increase density in order to raise land values [...]. The second important characteristic is controlled growth and limited population [...]. Once the area and plan and density of such a plan were determined, its upward limit of growth was set. [...] Further growth could take place, not by overcrowding [...], as in existing cities, but in the foundation of a new garden city.”

And he continued by observing, in broader terms, that: “There is an optimum numerical size, beyond which each further increment of inhabitants creates difficulties out of all proportion to the benefits. [...] Limitations on size, density, and area are absolutely necessary [...]; they are [...] the most important instruments of rational economic and civic planning” (Mumford 1938: 488).

Along similar lines, Stein (1957: 218) wrote:

“It seems to me that the sane policy is first to direct our energy toward building new and complete communities from the ground up: that is to say on open land outside developed urban areas. [...] We have adequately demonstrated [...] how unworkable and wasteful are the obsolete patterns of the old cities, and how completely they demand replacement. [...] Life [...] is imprisoned by gridiron streets forming an archaic pattern within which houses, factories, shops, and offices are crammed.”

² Here it should be noted that the 19th century was crucial for urbanisation in Europe. In 1700 only 13 million people actually dwelled in cities. The figure grew to 19 million in 1800, and in 1900 the urban population totalled 108.3 million (Zimmermann 1996).

³ “*Stadtluft macht frei nach Jahr und Tag* [city air makes you free after a year and a day]”. See Weber (1922).

⁴ For more on this, see the broader discussion in Zimmerman (1996).

⁵ This is how Jacobs (1961/1993: 28–29) describes the impact of their ideas: “The Decentrists’ analyses, the architectural and housing designs which were companions and off-shoots of these analyses ...—none of these had anything to do with understanding cities. [...] They were reasons and means for jettisoning cities, and the Decentrists were frank about this. But in the schools of planning and architecture, and in Congress, state legislatures and city halls too, the Decentrists’ ideas were gradually accepted as basic guides for dealing constructively with big cities themselves. This is the most amazing event in the whole sorry tale: that finally people who sincerely wanted to strengthen great cities should adopt recipes frankly devised for undermining their economies and killing them.”

And he continued: “Look at the ugly, dangerous, irrational, chaotic messes we call cities: certainly these are not the result of a purposeful plan. [...] The essential reality of these cities has not been conceived, devised, predetermined” (Stein 1957: 220).

Approaches of the kind denounced by Jacobs continued unchecked for many years. As noted by Véron (2006), even the early basic guidelines for *eco-cities* were imbued with anti-urban attitudes: their central purposes were to increase green space as far as possible, and to reduce density.

Current density-oriented planning approaches: the risks

Once the problem of *overcrowding* (clearly undesirable) was isolated from the issues of population and building density (without any severe overcrowding), as suggested by Jacobs, planners began to pay more attention. Many current movements that recognise the ideal of the so-called “compact city” (i.e., the Smart Growth approach, and New Urbanism: see Talen 2005 and Grant 2006) have rediscovered the advantages of density, and some have even made it their clarion call. In both theory and practice today, what used to be abhorred by modern planners is now increasingly considered a virtue, *marking a complete about-turn of attitude*. Hence planners have now swung in favour of fostering compact urban situations (Holden and Norland 2005; Rice 2010). The new enemy is low-density development—in a word: sprawl (Flynt 2006).

There are two caveats to bear in mind if we intend to prevent this new fad for density from losing its way: in the first instance, density itself is not an asset on its own; secondly, density is something to be encouraged and nurtured, not directly determined by planning.

Density: intrinsic value vs. instrumental value

First of all, it is vital to realise that density *per se* is meaningless unless it is a tool or condition for achieving something further. On its own, density (population, building, etc.) actually has little significance.⁶

And even if the instrumental function of density were to be acknowledged, another crucial point must be taken into account: density is not solely (or merely) a tool that can be helpful (at certain conditions) for reducing

commute times and minimising the encroachment on undeveloped land.⁷ Its primary asset concerns favouring the *concentrated* diverse admix of human preferences, tastes, abilities, know-how, uses, activities, and so forth.

From this perspective, urban density fosters myriad informal and spontaneous exchanges at interpersonal level with diversity, the Other, and also the transmission of *practical knowledge* (Desrochers 1998, 2001b; Holcombe 2012). Practical knowledge is both *situated* (i.e., it is specific know-how in a specific space and time) (Hayek 1948) and *tacit* (i.e., know-how acquired through a process of learning-by-doing or learning-by-using, and therefore one that is internalised in the mind of the individual, who makes use of it without deliberate, explicit reflection, and without being able to codify it in an easily transferable form) (Polanyi 1958, 1966). Practical knowledge is therefore both context-specific and person-specific. It is exactly because practical knowledge is situated and tacit that absorbing it is easier in situations of concentration and proximity; while *explicit*, codified knowledge can be acquired through education, for instance, *implicit* knowledge is acquired through sharing experiences and situations.⁸

Jacobs (1961) termed this form of knowledge *local knowledge*, that is, the perception of ordinary people of their local environment. And she observed that no single expertise can substitute for this kind of dispersed contextual knowledge that is crucial for the functioning of complex urban systems.⁹

In this perspective, face-to-face relations are still crucial (Ikeda 2004; Storper and Manville 2006). Videoconferences, for instance, will never create the opportunities of a dense work environment where people meet even in unplanned situations and learn from observing the random actions of individuals around them (Glaeser 2011: 37). “Cities make it easier to watch and listen and learn. Because the essential characteristic of humanity is our

⁶ For instance, as Gordon and Ikeda (2011: 438) observe, “density alone is not sufficient to generate economic development. [...] If it could, county prisons or the streets around Yankee Stadium as fans crowd into and out of games would be economically diverse and dynamic places—they are not. The former is not dynamic for obvious reasons while the latter lacks dynamism because it fails to provide the foundation for dynamic long-term growth, although it may sustain business such as baseball cap and hotdog sales.”

⁷ Notoriously, these questions are much debated (for the pros and cons of density/compactness, see for instance Breheny 1995; Gordon and Richardson 1997; Alberti 1999; Dieleman and Wegener 2004; Holden and Norland 2005; Neuman 2005; Geurs and van Wee 2006; Jabareen 2006; Lin and Yang 2006; Adolphson 2010; Rice 2010; Crewe and Forsyth 2011; Ferreira and Batey 2011; Ewing and Hamidi 2015). I assume here that certain environmental advantages can occur (in other words: they do not necessarily occur), and only if certain conditions are satisfied (in other words: they do not occur in any case). For lack of space I will not go into this aspect of the issue. Moreover, it lies outside my argument in favour of urban density.

⁸ The relevance of tacit knowledge and proximity spillovers has been widely recognised also in the recent economic literature; for the critical debate on this issue, see for instance Kirat and Lung (1999), Howells (2002), Lever (2002), Malmberg and Maskell (2002), Simmie (2002), Bathelt et al. (2004), Cook et al. (2007), Sonn and Storper (2008) and Gabe and Abel (2011).

⁹ On this specific aspect of Jacobs's thought, see in particular Ikeda (2004) and Callahan and Ikeda (2014).

ability to learn from each other, cities make us more human” (Glaeser 2011: 245). Despite all the hype concerning telecommunications and globalisation, places and space proximity are still crucial (Florida 2008).

The understanding that density is not in itself the issue, but merely one of the crucial conditions of urban diversity¹⁰ was amply developed again by Jane Jacobs (1961/1993: 288):

“People gathered in concentrations of city size and density can be considered a positive good, in the faith that they are desirable because they are the source of immense vitality, and because they do represent, in a small geographic compass, a great and exuberant richness of differences and possibilities, many of these differences unique and unpredictable—and all the more valuable because they are.”

See also Jacobs (1961/1993: 192): the diversity that is generated by cities “rests on the fact that in cities so many people are so close together, and among them contain so many different tastes, skills, needs, supplies, and bees in their bonnets.”

For Jacobs, diversity is one of the chief assets of a desirable city, and intrinsic to its proper functioning as a multifarious hub of humanity; as she observes, all kinds of diversity, intricately mingled in mutual support, are crucial (Jacobs 1961/1993: 315). Indeed, the very vitality and prosperity of the city depends on this diversity. These differences enable individuals to live and work in constant contact with others, and learn from their failures and successes through the countless experiences that this varied urban texture offers. In this case, the city is a vast, dynamic open laboratory of human experience and trial and error (Jacobs 1961/1993: 9).

The importance of diversity for economic urban vitality—that is, the possibility for economic actors to experiment frequently with different sources and forms of backgrounds, experiences and knowledge—has been subsequently claimed by many authors (Florida 2005, 2007, 2008; Glaeser 2011).¹¹ Diversity has been recognised as a fundamental precondition for creativity (Landry 2008). The crucial point here (Desrochers and Leppälä 2011b: 427) is not that creative individuals are only present in

socially and economically diverse urban environments; but, rather, that in such environments (creative) individuals are frequently faced with new problems and have more opportunities to address them, also because of the possibility of interacting with individuals who possess different and variegated expertise (these formal and informal interactions take place at the level of individuals, rather than between industries as such).

Density: deliberate design vs. spontaneous emergence

But there is more. The policies touted by certain anti-density planners throughout the last century were weirdly similar to the policies now being declared in the twenty-first by planners actually in favour of density (Bruegmann 2001). The introduction of growth boundaries and green belts, for instance, along with ensuring the centrality of certain types of public transport, are elements present both in planning schemes formerly used to *reduce density* and in those now employed for *increasing density*. (As Bruegmann 2001, observes, these tools were like a set of solutions searching for problems).

As noted above, this kind of contradiction arises because planners continue to place too much emphasis on density *per se* (in both a negative and a positive sense), and because planning itself continues to follow an entrenched top-down model, that is, an approach that may be termed *teleocratic*, meaning one tailored to specific ends and outcomes to be imposed by dint of law (Moroni 2010).¹²

It is hardly a coincidence that many new proponents of density—particularly those belonging to the New Urbanism movement—tend to focus on a comprehensive idea of urban design by which they imagine they can envision a city in all its facets and hence fine-tune it for the best outcomes. This approach involves two recurrent errors of judgement: first, the belief that every (urban) problem can be solved through planning and design; second, the belief that form determines the content. Here the New Urbanists accept a new form of *spatial determinism* (Harvey 1997). As King (2004: 109) writes: “The New

¹⁰ According to Jacobs, the other necessary conditions are a small size for each city block, the coexistence of buildings of different periods, quality and conditions, and a healthy blend of functions and amenities. For an attempt to operationalise all Jacobs’s conditions, see for instance Sung et al. (2015).

¹¹ For the critical debate on this point and discussion on empirical evidence, see for instance Desrochers (2001a), Storper and Manville (2006), Thomas and Darnton (2006), Desrochers and Leppälä (2011a, 2011b), Syrett and Sepulveda (2011), Kemeny (2012), Nathan (2015) and Rodriguez-Pose and Hardy (2015).

¹² By *teleocracy* we mean “a form of government—a social ordering system—in which ‘patterning-instruments’ are the main tools used by the state to regulate (not only its actions but also, and in particular) the actions of private parties.” (Moroni 2015: 256). In the case of land use planning, “‘patterning’ refers to a particular configuration or arrangement of the urban system. The typical tool is a comprehensive set of prevalently ‘map-dependent rules’—that is, rules which are different for different tracts of land within the same city [...]. Patterning-instruments try to define the role of the diverse parts or components of the urban structure. They look for a form of ‘substantive coordination’. They try to generate a social order directly: their aim is to obtain a certain correspondence between the rules introduced and the emerging socio-spatial order. They are ‘shaping-devices’, and they are ‘future-oriented’” (Moroni 2015: 256).

Urbanists seem to embrace (with insufficient reflection and argument) a particular vision of authentic and desirable communities, and they suppose that such communities will emerge from particular built forms.¹³ And she comments: Obviously, spatial factors shape and constrain social possibilities; but the relationship is reciprocal and surely non-linear; we should therefore remain sceptical about any claims that spatial forms determine in themselves social processes (*ibid.*).

In this sense, despite their profession of faith in Jacobs, the New Urbanists are sometimes off track. In this regard Gordon and Ikeda (2011: 439) observe: The kind of diversity that Jane Jacobs considers as typical of long-term economic vitality is largely “the result of an ‘organic’ process, typically small scale and at the level of the individual entrepreneur. [...] Today, developers and smart-growth planners, inspired by New Urbanism, seem to want to skip the organic, evolutionary process and instead construct what they regard as the ideal outcome of that process.” In other words: “Too many of those who claim Jacobs as a major influence have missed the spontaneous order message [...] and have instead interpreted her descriptions of successful living cities more prescriptively than she intended” (440). The same point is underscored by Fainstein (2000: 464): although Jacobs’s critique of modernist planners “undergirds much of the new urbanism, she would probably repudiate its effort to prescribe what in her view must be spontaneous.”¹⁴

Put quite simply, there is no way that optimal urban density can be created in advance on the drawing-board: densities fail wherever they impede diversity rather than encourage it. As Jacobs (1961/1993: 267) observes: High concentration of residents is not sufficient if diversity is thwarted; for example, no concentration of residence is sufficient to create diversity in “regimented projects”, because, in these cases, diversity has been paralyzed in any case. In brief, we should look at density in the same way as we view calories: the right amount for *each person* can be discovered solely according to the ongoing performance delivered (Jacobs 1961/1993: 272).

For this reason, it would be appropriate to jettison once and for all certain *directional* planning rules and welcome a new set of *relational* rules that afford greater scope for bottom-up processes: a set that rejects the *teleocratic*

approach in favour of a *nomocratic* one,¹⁵ in which the institutions and the law are only the framework geared to avoiding reciprocal harm, and have no specific, prescribed outcome, thereby allowing the natural interaction and healthy competition among countless, incomparable experiences (Moroni 2010, 2012; Holcombe 2013).

“Relational rules” do not concern concrete overall physical outcomes, but the general process of action and interaction. They are impersonal, simple, and stable. *Impersonality* asks for rules that are abstract (i.e., referring to standard situations or actions, and not to specific ones), and general (i.e., applying equally to everyone, and not to particular individuals or plots); moreover, they must be prevalently negative (i.e., merely forbidding certain undesirable side-effects). Abstract, general, and prevalently negative rules allows individuals (citizens, architects, designers, developers...) to respond to new circumstances through innovative action prompted by their particular knowledge of the circumstances of time and place. In short: they increase the capacity of the social-spatial system to take advantage of dispersed and contextual knowledge (i.e., local knowledge, in Jacobs’s terms). It is the city—its citizens—who must be creative, not the public regulatory framework (Moroni 2011). *Simplicity* requires plain and unambiguous rules; that is, rules that steer clear of technicality, complexity, and indeterminacy (Schuck 1992; Epstein 1995). Responses to them can only be binary, with no room for ad hoc administrative interpretation and discretionality. Note how all this is possible only if and when we renounce the comprehensive and whole-coordinating approach of many forms—both traditional and contemporary—of planning. *Stability* asks for rules that are permanent for sufficiently long periods of time to enable individuals to have dependable expectations with regard to the actions of others, and to the actions of the national and local state too. Stable rules are crucial because entrepreneurs, developers, land owners, simple citizens, and so forth

¹³ For the critical debate on this point, see Talen (2002, 2003), Thompson-Fawcett and Bond (2003), Richardson and Gordon (2004) and Moore and Wilson (2009). For attempts to test certain New Urbanists’ assumptions, see for instance Audirac (1999), Cabrera and Najaran (2013) and Jabareen and Zilberman (2016).

¹⁴ On this point see also Cozzolino (2015).

¹⁵ By *nomocracy* we mean “a form of government in which only ‘framework-instruments’ are used to regulate private actions; whereas patterning-instruments are introduced solely as means to discipline and guide public actions (e.g., to supply basic public infrastructure on public land with public funds). [...] The point is not necessarily [...] the ‘minimisation of collective intervention’, but the idea of radically changing the way in which we intervene” (Moroni 2015: 256). “In the case of framework-instruments, the typical tool is a set of prevalently ‘non-map-dependent rules’ [...]. Framework-instruments do not define the specific role of the various parts and components of the urban structure; rather, they merely exclude certain interrelationships among them. [...] They try only to generate a social order indirectly: the rules they introduce and the emerging socio-spatial order do not coincide. Framework instruments are not future-oriented but ‘present-oriented’, and they are not shaping devices, but ‘filter devices’. Filter devices imply simply avoiding certain [...] effects, and leaving all the other possible outcomes free” (Moroni 2015: 257).

need to know the rules of the game—not simply for their short-term choices, but also for their long-term options. Observe that the only rules that can remain stable are those that deal with abstract and general aspects of local urban reality, and do not claim to control the details. In other words, it is due to the tendency to apply overly detailed and specific regulations that we have omitted or failed to ensure stability to land-use and building rules; (non-relational but) directional rules tend to become obsolete more rapidly; they must be rewritten many times in order to keep abreast of concrete changing situations they intend to shape.

Relational rules serve therefore to reduce, but not to eliminate, uncertainty. Systems of relational rules narrow the range of possible (urban) actions to some typical and general class. They provide a kind of *pattern-coordination*, not a *coordination-of-detail*, amongst individuals' actions and activities (Moroni 2007). They are rules such as: "Every building project or modification must, in whatever place, avoid generating the externalities D, E and F"; "Any building of type W must not be constructed within X metres from buildings of type Z" and so forth. Relational rules assure therefore only an *appropriate degree of predictability*: for instance, X cannot know in advance precisely what will happen to lot Y that lies alongside her/his own land (what specific type of land-use will take place, what concrete activities, etc.); X can only know that, on lot Y (as on other plots of land in the same urban realm), irrespective of the type of buildings that will be constructed there, certain externalities are to be excluded (e.g., specific kinds of pollution, certain noise-levels, and so on) and certain relationships avoided (e.g., proximity between type W and type Z buildings) (Moroni 2012).

To return to Jacobs (1961/1993: 311): "City areas with flourishing diversity sprout strange and unpredictable uses and peculiar scenes. But this is not a drawback of diversity. This is the point, or part of it."

In this perspective, the aim is not to create density *directly*—after having expressly laboured to avoid it for so long—but to open the door and allow density to happen in our cities thanks to more abstract and general planning rules that merely exclude a list of specific negative externalities and give more leeway for experimentation and self-organisation, and which include the *free* transfer of development rights.

The conventional "zoning-integrative" type of transferable development rights is not the only application available. Actually, there is no necessary connection between transferable development rights and zoning as such. In a different perspective, transferable development rights can be conceived in terms of alternatives to zoning—rather than as mere adjuncts (Chiodelli and Moroni 2016). "Zoning-alternative" transferable development rights are a device in their

own right, independent from zoning. In this case, the local government's role is restricted to deciding the overall development quantity to be permitted (through the decision on how many transferable development rights to allocate). Once this overall quantity has been decided, transferable development rights are automatically allocated with an identical ratio (e.g., Y development units per acre) (Chiodelli and Moroni 2016). The real estate market is subsequently free to re-allocate those rights among landowners (Thorsnes and Simons 1999). The municipality may decide to draw a distinction between involved areas and non-involved areas. No further distinction (e.g., between sending areas and receiving areas) will be envisaged. Clearly, all the transfers must be carried out without violating the *relational rules* indicated above (for instance, where the transferable development rights "make landfall" and amass).

In brief: the tool of transferable development rights can be seen not so much as a *form of compensation* (in light of more traditional types of zoning),¹⁶ but as a *form of opportunity*, namely a means to allow the formation of density when and where they are deemed appropriate by society and by the market.

To avoid misunderstandings, it must be stressed that beside from granting a framework of relational rules, the nomocratic approach contemplate also the provision of public spaces and infrastructures on public lands via a form of circumscribed planning (Moroni 2012, 2015). This kind of planning is necessarily based on the ascertainment of specific circumstances; it directly regards the actions of the public sector and the land owned by the public sector, not the actions of private parties on private land. The directives introduced in this second case are obviously locationally-specific and map-dependent. Local government have to specify in advance where public services and infrastructure will be located (Holcombe 2012) without any obligation to extend roads, sewers and other infrastructures to *whatever* site the private parties might choose for development.

Final remarks

The primary aim of this article is to show that the traditional aversion to density and the more recent uncritical acceptance of density can both generate problems. In

¹⁶ The transfer of development rights has mainly been used to compensate landowners in areas targeted for restrictive zoning, thereby avoiding takings arguments by those landowners. See Richman and Kanding (1977: 571): "the interest in TDR is primarily related to its potential in avoiding [...] taking deadlock." A similar aspect is stressed by Carlo and Wright (1977: 12): "TDR [...] avoids a potential 'taking' problem by providing residual use to a down-zoned landowner in the form of a development right." Renard (2007: 44) also argue that: "TDR in the USA is more a way of compensating restricted landowners, in order to make zoning more 'acceptable', than developing a market in development rights."

particular, it is important to realise that density is neither *per se* negative nor *per se* positive. As Turok and McGranahan (2013) observe in this regard: “Density can improve the environmental and economic performance of human settlements. [...] It can also support a vibrant public realm and creative atmosphere in which people from different backgrounds mix and mingle. [...] For this to be achieved, however density needs to be [considered] as a tool [...] and should not be an end in itself”

In second place the article suggests that instead of trying to define and determine density, we must foster the conditions by which density can generate itself. As underscored, one of the main advantage of the city and city life is that a certain kind of urban context brings together—thanks also to density—people of all kinds from all walks of life, offering a thriving pool of human interchange. In this sense, cities present a particular *clustering force* (Florida 2008). Advantageous clustering is not necessarily the *direct* outcome of any deliberate planning; many scholars discuss about what might be the “best” (social-economic-spatial) clusters, but the content and the configuration of clusters are really complex, and the best ones for each context are most likely to emerge in a situation of (appropriately constrained) spontaneity (Gordon 2012: 191).¹⁷

Competing interests

The author declares that he has no competing interests.

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References

- Adolphson M (2010) Kernel densities and mixed functionality in a multicentred urban region. *Environ Plan* 37:550–566
- Alberti M (1999) Urban patterns and environmental performances: what do we know? *J Plan Educ Res* 19:151–163
- Audirac I (1999) Stated preference for pedestrian proximity: an assessment of new urbanist sense of community. *J Plan Educ Res* 19:53–66
- Bathelt H, Malmberg A, Maskell P (2004) Clusters and knowledge: local buzz, global pipelines and the process of knowledge creation. *Prog Hum Geogr* 28(1):31–56
- Bauer C (1956) The pattern of urban and economic development: social implications. *Ann Am Acad Polit Soc Sci* 305:60–69
- Breheny M (1995) The compact city and transport energy consumption. *Trans Inst Br Geogr* 20:81–101
- Broadbent G (1990) *Emerging concepts in urban space design*. E & FN Spon, London
- Bruegmann R (2001) Urban density and sprawl. In: Holcombe RG, Staley SR (eds) *Smarter growth*. Greenwood Press, Westport, pp 155–177
- Cabrera JF, Najarian JC (2013) Can new urbanism create diverse communities? *J Plan Educ Res* 33(4):427–441
- Callahan G, Ikeda S (2014) Jane Jacobs' critique of rationalism in urban planning. *Cosmos Taxis* 1(3):10–19
- Carlo C, Wright ER (1977) Transfer of development rights: a remedy for prior excessive subdivision. *UCDL Rev* 10:1–30
- Chiodelli F, Moroni S (2016) Zoning-integrative and zoning-alternative transferable development rights. *Land Use Policy* 52:422–429
- Churchman A (1999) Disentangling the concept of density. *J Plan Lit* 14(4):389–411
- Cook GAS, Pandit NR, Beaverstockô JV, Taylor PJ, Pain K (2007) The role of location in knowledge creation and diffusion. *Environ Plan* 39:1325–1345
- Cozzolino S (2015) Insights and reflections on Jane Jacobs' legacy. Towards a Jacobsian theory of the city. *Territorio* 72:151–178
- Crewe K, Forsyth A (2011) Compactness and connection in environmental design: insights from ecoburbs and ecocities for design with nature. *Environ Plan* 38:267–288
- Desrochers P (1998) A geographical perspective on Austrian economics. *Q J Austrian Econ* 1(2):63–83
- Desrochers P (2001a) Local diversity, human creativity, and technological innovation. *Growth Change* 32:369–394
- Desrochers P (2001b) Geographical proximity and the transmission of tacit knowledge. *Rev Austrian Econ* 14(1):25–46
- Desrochers P, Leppälä S (2011a) Creative environments: the case for local economic diversity. In: Andersson DE, Andersson AE, Mellander C (eds) *Handbook of creative cities*. Edward Elgar, Cheltenham, pp 422–434
- Desrochers P, Leppälä S (2011b) Opening up the 'Jacobs Spillovers' black box: local diversity, creativity and the processes underlying new combinations. *J Econ Geogr* 11:843–863
- Desrochers P, Sautet F (2004) Cluster-based economic strategy, facilitation policy and the market process. *Rev Austrian Economics* 17(2/3):233–245
- Dieleman F, Wegener M (2004) Compact city and urban sprawl. *Built Environ* 30(4):308–323
- Epstein RA (1995) *Simple rules for a complex world*. Harvard University Press, Cambridge
- Ewing R, Hamidi S (2015) Compactness versus sprawl: a review of recent evidence from the United States. *J Plan Lit* 30(4):413–432
- Fainstein SS (2000) New directions in planning theory. *Urban Affs Rev* 35(4):451–478
- Ferreira A, Batey P (2011) On why planning should not reinforce self-reinforcing trends: a cautionary analysis of the compact-city proposal applied to large cities. *Environ Plan B* 38:231–247
- Florida R (2005) *Cities and the Creative Class*. Routledge, London
- Florida R (2007) *The flight of the creative class*. Collins, New York
- Florida R (2008) *Who's your city?*. Basic Books, New York
- Flynt A (2006) *This land. The Battle Over Sprawl and the Future of America*. The Johns Hopkins University Press, Baltimore
- Gabe T, Abel R (2011) Agglomeration of knowledge. *Urban Stud* 48(7):1353–1371
- Geurs KT, van Wee B (2006) Ex-post evaluation of thirty years of compact urban development in the Netherlands. *Urban Stud* 43(1):139–160
- Glaeser E (2011) *Triumph of the city*. MacMillan, London
- Gordon P (2012) Spontaneous cities. In: Andersson DE (ed) *The spatial market process*. Emerald, Bingley, pp 181–209
- Gordon P, Ikeda S (2011) Does density matter? In: Andersson DE, Andersson AE, Mellander C (eds) *Handbook of creative cities*. Edward Elgar, Cheltenham, pp 435–455
- Gordon P, Richardson HW (1997) Are compact cities a desirable planning goal? *J Am Plan Assoc* 63(1):95–106
- Graham W (2016) *Dream cities. Seven urban ideas that shape the world*. Harper Collins, New York
- Grant J (2006) *Planning the good community. New urbanism in theory and practice*. Routledge, London
- Harvey D (1997) The new urbanism and the communitarian trap. *Harv Des Maga* 1:1–3
- Hayek FA (1948) *Individualism and economic order*. The University of Chicago Press, Chicago
- Holcombe RG (2011) Cultivating creativity: market creation of agglomeration economies. In: Andersson DE, Andersson AE, Mellander C (eds) *Handbook of creative cities*. Edward Elgar, Cheltenham, pp 387–421
- Holcombe RG (2012) The rise and fall of agglomeration economies. In: Andersson DE (ed) *The spatial market process*. Emerald, Bingley, pp 211–232
- Holcombe RG (2013) Planning and the invisible hand: allies or adversaries? *Plan Theory* 12(2):199–210

¹⁷ With more specific reference to economic activities, see Desrochers and Sautet (2004). Compare also with Holcombe (2011 and 2012).

- Holden E, Norland IT (2005) Three challenges for the compact city as a sustainable urban form. *Urban Stud* 42(12):2145–2166
- Howard E (1902) *Garden cities of to-morrow*. Swan Sonnenschein & Co., London
- Howells JRL (2002) Tacit knowledge, innovation and economic geography. *Urban Stud* 39(5–6):871–884
- Ikeda S (2004) Urban interventionism and local knowledge. *Rev Austrian Econ* 17(2/3):247–264
- Jabareen YR (2006) Sustainable urban forms. Their typologies, models and concepts. *J Plan Educ Res* 26:38–52
- Jabareen Y, Zilberman O (2016) Sidestepping physical determinism in planning: the role of compactness, design, and social perceptions in shaping sense of community. *J Plan Educ Res* 1–11. doi:10.1177/0739456X16636940
- Jacobs J (1961) *The death and life of great American Cities*. Random House, New York [The Modern Library, New York, 1993]
- Kemeny T (2012) Cultural diversity, institutions, and urban economic performance. *Environ Plan A* 44:2134–2152
- King L (2004) Democracy and city life. *Polit Philos Econ* 3(1):97–124
- Kirat T, Lung Y (1999) Innovation and proximity. Territories as loci of collective learning. *Eur Urban Reg Stud* 6(1):27–38
- Landry C (2008) *The creative city*. Earthscan, London
- Lever WF (2002) Correlating the knowledge-base of cities with economic growth. *Urban Stud* 39(5/6):859–870
- Lin J-J, Yang A-T (2006) Does the compact-city paradigm foster sustainability? *Environ Plan B* 33:365–380
- Malmberg A, Maskell P (2002) The elusive concept of localization economies: towards a knowledge-based theory of spatial clustering. *Environ Plan A* 34:429–449
- Moore SA, Wilson BB (2009) Building codes in North America: the case of the Alley Flat Initiative. *Urban Stud* 46(12):2617–2641
- Moroni S (2007) Planning, liberty and the rule of law. *Plan Theory* 6(2):146–163
- Moroni S (2010) Rethinking the theory and practice of land-use regulation. Towards nomocracy. *Plan Theory* 9(2):137–155
- Moroni S (2011) Land-use regulation for the creative city. In: Andersson DE, Mellander C, Andersson A (eds) *Handbook of creative cities*. Edward Elgar, Aldershot, pp 343–364
- Moroni S (2012) Why nomocracy: structural ignorance, radical pluralism and the role of relational rules. *Prog Plan* 77(2):46–59
- Moroni S (2015) Complexity and the inherent limits of explanation and prediction: urban codes for self-organizing cities. *Plan Theory* 14(3):248–267
- Mumford L (1938) *The culture of cities*. Harcourt, Brace and Company, New York
- Nathan M (2015) After Florida: towards and economics of diversity. *Eur Urban Reg Stud* 22(1):3–19
- Neuman M (2005) The compact city fallacy. *J Plan Educ Res* 25:11–26
- Polanyi M (1966) *The tacit dimension*. Doubleday, Garden City
- Polanyi M (1958) *Personal knowledge*. The University of Chicago Press, Chicago
- Renard V (2007) Property rights and the transfer of development rights. Question of efficiency and equity. *Town Plan Rev* 78(1):41–60
- Rice L (2010) Retrofitting Suburbia: is the compact city feasible? *Urban Des Plan* 163(4):193–204
- Richardson HW, Gordon P (2004) US population and employment trends and sprawl issues. In: Richardson HW, Bae CHC (eds) *Urban sprawl in Western Europe and the United States*. Ashgate, Burlington, pp 217–236
- Richman HJ, Kending LH (1977) Transfer development rights. A pragmatic view. *Urban Lawyer* 9:571–587
- Rodriguez-Pose A, Hardy D (2015) Cultural diversity and entrepreneurship in England and Wales. *Environ Plan A* 47:392–411
- Rosenberg G (1966) City planning theory and the quality of life. *Am Behav Sci* 9(4–5):3–7
- Schuck PH (1992) Legal complexity: some causes, consequences, and cures. *Duke Law J* 42:1–52
- Simmie J (2002) Knowledge spillovers and reasons for the concentration of innovative SMEs. *Urban Stud* 39(5–6):885–902
- Sonn JW, Storper M (2008) The increasing importance of geographical proximity in knowledge production: an analysis of US patent citations. *Environ Plan A* 40:1020–1039
- Stein CS (1957) *Towards new towns for America*. Reinhold, New York
- Storper M, Manville M (2006) Behaviour, preferences and cities: Urban theory and urban resurgence. *Urban Stud* 43(8):1247–1274
- Sung H, Lee S, Cheon SH (2015) Operationalizing Jane Jacobs's urban design theory: empirical verification from the great city of Seoul, Korea. *J Plan Educ Res* 35(2):117–130
- Syrett S, Sepulveda L (2011) Realising the diversity dividend: population diversity and urban economic development. *Environ Plan A* 43:487–504
- Talen E (2002) The social goals of new urbanism. *Hous Policy Debate* 13(1):165–188
- Talen E (2003) The problem with community in planning. *J Plan Lit* 15(2):171–182
- Talen E (2005) *New urbanism and American planning. The conflict of cultures*. Routledge, London
- Thomas JM, Darnton J (2006) Social diversity and economic development in the metropolis. *J Plan Lit* 21(2):153–168
- Thompson-Fawcett M, Bond S (2003) Urbanist intentions for the built landscape: examples of concept and practice in England, Canada and New Zealand. *Prog Plan* 60:147–234
- Thorsnes P, Simons GPW (1999) Letting the market preserve land: the case for a market-driven transfer of development rights program. *Contemp Econ Policy* 17(2):256–266
- Turok I, McGranahan G (2013) Urbanization and economic growth: the argument and evidence for Africa and Asia. *Environ Urban* 25(2):465–482
- Unwin R (1912) *Nothing gained by overcrowding*. P.S. King & Son, Westminster
- Veron J (2006) *L'urbanisation du monde*. La Découverte, Paris
- Weber M (1922) *Wirtschaft und Gesellschaft*. Mohr, Tübingen
- Zimmermann C (1996) *Die Zeit der Metropolen*. Fischer Taschenbuch, Frankfurt

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