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Epistemological critiques to the technocratic planning model: the role of Jane Jacobs, Paul Davidoff, Reyner Banham and Giancarlo De Carlo in the 1960s

Carolina Pacchi* 

Abstract

During the 1960s, different critical voices emerged with regard to the main gaps of technocratic planning (what Jacobs calls 'modern, orthodox city planning'), voices highlighting the oversimplifying epistemological approaches that had been characterising planning in the first half of the twentieth century. Jane Jacobs' thought has been of paramount importance in influencing planning and urban discourses worldwide, but she has not been isolated: in the same years, other critical voices have been shaping a critical thought and fostering debate, on both sides of the Atlantic. Among them, Paul Davidoff, appealing for advocacy planning in NYC, Giancarlo De Carlo, proposing a sharp critique of architectural and planning education in Italy and Reyner Banham and his group, advocating the (paradoxical) possibility of non-planning in the UK. This article proposes to identify a relevant common feature across their positions in the connection between epistemological and political critique; as Jane Jacobs, many critics of traditional technocratic planning underline the inappropriate and ineffective mechanisms of knowledge production and use in urban planning: if cities are characterised by organised complexity ('intricate social and economic order under the seeming disorder of cities', as Jacobs puts it), then it is not possible to reduce them to 'simple problems'. These authors develop their interpretative discourses in different ways, and advance different proposals to bridge this gap, combining in original ways the epistemological dimension with a political and a cultural one.

Keywords: Jane Jacobs, Technocratic planning, Epistemology, Knowledge production, Process planning

Introduction

Jane Jacobs' position on the use of rationality (Jacobs 1961; Callahan and Ikeda 2014; Laurence 2016) and on the over-reliance on scientific and technical reasoning in urban planning and urban regeneration policies has been of great importance for its consequences on the planning and urban studies debate, but it is by no means isolated in the 1960s. Interestingly enough, different scholars and activists from quite different disciplinary and political backgrounds expressed quite similar critiques to the knowledge-action connection in

the traditional technocratic planning model, contributing with their arguments to pave the way for a sort of epistemological 'revolution' in planning theory and practice in the subsequent decades, anticipating to some extent the scientific and philosophical critiques to positivist epistemology that emerged in the 1970s and 1980s (De Roo 2010; Palermo and Ponzini 2014). Also thanks to Jacobs and other critics, in recent years there is a shared awareness that.

"The problems of architecture and urban planning today relate primarily to ends and effects rather than to technique (and the main limit is not the eventual lack of scientific background). These positions are supported by the evolution of epistemological thinking that has long since abandoned any

*Correspondence: carolina.pacchi@polimi.it
Department of Architecture and Urban Studies (DAStU), Politecnico di Milano, Via Bonardi 3, 20133 Milan, Italy

pretence of absolute foundation to recognize the cultural, ethical and social grounds that contribute to the formation of judgments of truth” (Palermo and Ponzini 2014, p. 61).

Among the vast array of emerging voices, criticising the epistemological gap that characterises much planning theory and practice in the first half of the twentieth century, the article will focus on the positions and arguments of Paul Davidoff in the US, Giancarlo De Carlo in Italy and Paul Barker, Reyner Banham and a group of other intellectuals in the UK. Their positions appear quite interesting in relation to Jacobs’s one, because they share some relevant elements with her critique, but each of them introduces a specific and contextual angle to their argument.

There are two main elements in common among the different positions: the first one is the critical discussion of the intrinsic limits of positivist rationality, especially when it is applied to contexts such as urban planning; as Palermo and Ponzini observe, this critique has significantly influenced the ideal of radical modernisation projects, both in architecture and in urban planning:

“the experience of modernity has revealed ambiguities and paradoxes in the traditional aspiration to scientifically establishing public action. The modern project has lost its radical desire for the emancipation and development of human capabilities; what has remained instead is the social reproduction of various rationalization technologies (Palermo and Ponzini 2014, p. 61)

The second common element is an attempt to unveil the opaque connection between epistemology and politics, and ultimately to critically reflect on the role of power in policy making and planning.

Jacobs very clearly highlights the point introducing the ‘organised complexity’ concept, which calls for a completely different form of knowledge production and mobilisation compared to the ones which target simple problems, or problems of disorganised complexity (Jacobs 1961; Laurence 2016). Impinging on Weaver’s examination of the evolution of natural sciences in the preceding half century (Weaver 1958), she proposes to decisively go beyond both the traditional epistemology of simple problems connected to Newtonian physics, and the statistical approach to disorganised complexity, to move to a perspective closer to the life sciences (‘organised complexity’). From this attention to the life sciences derives the metaphor of the city as an organic being, useful to understand how the city develops and therefore to identify the possible strategic directions for its development in a normative perspective.

“Cities present situations in which a half-dozen or even several dozen quantities are all varying simultaneously and in subtly interconnected ways. Cities, again like the life sciences, do not exhibit one problem in organized complexity, which if understood explains all. They can be analyzed into many such problems or segments which, as in the case of the life sciences, are also related with one another. The variables are many, but they are not helter-skelter; they are interrelated into an organic whole” (Jacobs 1961, p. 433)

One first entry point into this argument is the acknowledgement of the different sources of urban knowledge, and of the fact that they are necessarily dispersed among a large number of actors, all potentially users and designers at the same time. As noted by Moroni when he discusses the relationship between knowledge and markets ‘it is impossible to intentionally concentrate the dispersed knowledge that enables complex economic systems to function’ (Moroni 2014, p. 15), because this knowledge has three fundamental features: it is *situated*, therefore specific in space and time, it is *tacit*, which means that it is acquired through forms of learning-by-doing and not formally codified, and thirdly it is *dynamic*, which means that it changes over time; the impossibility to intentionally concentrate and make this knowledge ‘public’, calls for more direct forms of societal involvement and direct experimentation (*ibidem*).

Secondly, whereas one of technocratic planning’s fundamental tenets was the declared ‘neutrality’ of technical decisions vis-à-vis the political dimension of society (be it read as an interest-based pluralist society, or in other perspectives), Jane Jacobs and the other authors in the 1960s, insist on the inherently political dimension of planning choices (and, more in general, of policy making) and on the limits of the instrumental use of technical expertise, which contributes to distort information and knowledge and to impose simplistic solutions to complex societal problems. The unveiling of this power connection is very clear in Paul Davidoff’s call for openly partisan planning positions, as well as in De Carlo’s oriented critique of the role of architecture and planning knowledge in society, and therefore of technical education and training.

Thus the epistemological critique becomes also a political critique, even if this dimension is differently present in the critical discourses. The positions are nuanced in the four authors, and the political side to the critique might emerge more or less explicitly, while for instance it is frequently implicit in Jacobs, who manifests an interest in urban economic and social vitality

from a substantive point of view (Laurence 2016, 2018), more than a specific interest in decision-making and in the process dimension.

The following paragraphs will first highlight the main recurring features of the technocratic planning model, looking in particular at the knowledge-action nexus and at the ambiguities in the relations with the political dimension, and then they will focus on the nature of some 'critical voices' of the 1960s, trying to identify the most significant commonalities and differences with Jane Jacob's thought. Finally, the conclusions will summarise the previous arguments also in the light of some recent developments of planning theory *vis-à-vis* the mentioned critiques.

Emerging features of technocratic planning in the first half of the twentieth century

Under the rather wide and comprehensive definition of *technocratic planning* we can gather a number of theoretical positions and practical experimentations, which emerged in Continental Europe in the last decades of the nineteenth century and in the US around the first decades of the twentieth century (Benevolo 1967; Boyer 1983), aiming at establishing the (public) legitimacy and at setting the ground rules and specific guidelines for urban planning; this last therefore gained status as an activity and a discipline separated from civil and sanitary engineering on the one side and from *Beaux Arts* and monument design on the other. This technocratic planning perspective had a significant and long-lasting influence on urban planning and design throughout the twentieth century, notwithstanding a series of well-argued and, from a certain point in time, extremely diffused critiques. According to Moroni technocratic planners.

believe themselves able to gather and analyse a priori and in quantitative terms the relevant information regarding the city. They consider themselves able to rely on specific predictions of future events. Thanks to this kind of competence, planners presume that they are able to design the desired urban end-state and to define, as precisely as feasible, target sites for particular uses (Moroni 2018, p. 145)

The evolution of technocratic planning has followed slightly different paths in European and American cities, due to their different cultural, political and institutional conditions; we will recall here some of the fundamental tenets of technocratic planning in the US, using the works of some pioneers such as Lewis and Howe, bearing in mind that some of the issues are present across both contexts.

First, planning can be conceived at the same time as 'foresight' or 'remedy', as proposed for instance by Lewis

(1916) in that it may be an anticipation of the inevitable accumulation of negative externalities deriving from the uncontrolled growth of the industrial city, or it can be conceived as a correction, an ex-post attempt at minimising the worst (public) impacts of such evolution. 'City Planning is simply the exercise of such foresight as will promote the orderly and sightly development of a city and its environs along rational lines' (Lewis 1916, p. 11). Or, according to Howe, City Planning 'anticipates the future with the farsightedness of an army commander, so as to secure the orderly, harmonious, and symmetrical development of the community' (Howe 1913, p. 1).

To work in this direction, the city comes to be considered as a tool, as a machine useful for the production process: 'The process of planning conceives of the city as an instrument of capitalist development. Now the nature of the city is to be a functional tool, a machine useful to the process of production' (Boyer 1983, p. 66).

Secondly, sometimes in open opposition with what city design had been in the nineteenth century, technocratic planning legitimises (albeit not without contention) public intervention also on private land, and therefore the possibility to dictate rules and restrictions to private owners, in the form of zoning (firstly concerning heights, setbacks and building ratios, then also land-uses). This is a huge discontinuity with the past, and one of the elements of recurring critique along the subsequent decades. On this point Howe observes: 'City planning, in a comprehensive sense, is only possible where the city has authority to control private property in the interest of the community' (Howe 1913, p. 2).

In intervening on the city, technocratic planning introduces a new epistemology, based on the idea that the production and elaboration of knowledge should precede action, in line with positivistic epistemology gaining ground in many scientific fields in the same age: this traditional knowledge-action connection has had a long lasting and enduring influence over planning throughout the twentieth century, and it somehow resists post-positivist critiques still today.

On this point, Howe very clearly states: 'City planning involves a new vision of the city. It means a city built by experts, by experts in architecture, in landscape gardening, in engineering, and housing, by students of health, sanitation, transportation, water, gas, and electricity supply' (*ibidem*).

This simplification of the knowledge-action nexus and the rigid model of rationality that therefore crystallises in planning thought is at odds with the recognition of multiple forms of rationality, as for instance Schmitt and Hartmann argue, with reference to Mary Douglas' thought and to Cultural Theory (Schmitt and Hartmann 2016). The tensions between a dominant form of rationality

and a plurality of rationalities characterises, on the other hand, the evolution of modernity itself: 'the discovery of multiple forms of reason was an achievement of modernity obscured, however, by the widespread search for a dominant form of rationality' (Palermo and Ponzini 2014, p. 61).

One typical example of the use of technical knowledge in simplifying the inquiry about cities is the emerging attitude to break down cities, and therefore planning processes, into systems, firstly those concerning public activities and initiatives, and then also those concerning the 'private' city. Authors in this period mention the transportation system, the street system, parks and recreation facilities, public buildings and civic centres, the railroad system. In subsequent years, also the residential system, the production system, and so on, will be identified as the foundational bases of 'scientific' planning.

Connecting epistemology and politics: critiques to planning in the 1960s

In the years after the publication of *Death and Life of Great American Cities*, different critical voices within and outside the urban planning field critically discussed the points so clearly highlighted by Jane Jacobs, in some cases in direct connection with her thought, in others independently: among the many interesting ones, we will discuss in particular Davidoff's, Barker and Banham's, and De Carlo's ones.

Paul Davidoff's very famous and extensively quoted article on advocacy and pluralism in planning, appeared in the *Journal of the American Institute of Planners* in 1965, the same year of Alan Altschuler's critique of planning theory and practice in the US (Altschuler 1965). Its content is significantly influenced by the racial and class tensions emerging in American society and politics in the first half of the 1960s, as well as by classical pluralist thought (as expressed for instance by Dahl 1961). The core of Davidoff's critique to technocratic planning is at the same time epistemological and political, or to put it more clearly, it is political insofar as it is epistemological. Davidoff criticises the traditional planning routine which brings an individual planner or planning office to develop different alternatives, because each alternative course of action should be connected to underlying goals and value systems: 'Appropriate planning action cannot be prescribed from a position of value neutrality, for prescriptions are based on desired objectives' (Davidoff 1965, p. 331).

The pretended neutrality of the rational model, based on the careful analysis of urban issues and problems, the development of a set of alternatives and the choice of the best alternative according to sets of 'technical' criteria unveils here its intrinsic political dimension: if values

are not made explicit, they will tend to correspond to the value systems of the government or public agencies. Hence the proposal of an adversarial planning system, in which plans are designed on the basis of explicitly different interests and values, and are subsequently compared and defended in a public discussion arena: 'In plural planning the alternatives would be presented by interest groups differing with the public agency's plan. Such alternatives would represent the deep-seated convictions of their proponents and not just the mental exercises of rational planners seeking to portray the range of choice' (Davidoff 1965, p. 333).

The intrinsic quality of each different plan proposal would be much higher, because they would be the result of specific decentralised knowledge gathering efforts, thus relying on the mobilisation of situated, tacit and dynamic knowledge (to use Moroni's criteria), and because they would propose solutions consistent with the underlying value systems of different actors, so that goals would be connected explicitly to the means employed to reach them.

A quite different stance characterises the *Non-Plan* proposal, advanced in 1969 on *New Society* by four British intellectuals active in the fields of sociology, architecture, urban design and geography. The style of the article is ironic and paradoxical, as the proposal advocated is to leave parts of the UK territory unplanned, and to subsequently check, after some time, the results in terms of quality of the built environment and quality of life of local communities. Such an idea is to a certain extent extreme, but the core of the argument stands out quite clearly:

"... physical planning, like anything else, should consist at most of setting up frameworks for decision, within which as much objective information as possible can be fitted. Non-Plan would certainly provide such information. But it might do more. Even to talk of a 'general framework' is difficult. Our information about future states of the system is very poor" (Banham et al. 1969, p. 442).

The critique to the actual epistemology of planning clearly emerges here, but the evaluation of the very poor results of planning control in the UK brings the authors one step further, to question the legitimacy of (urban) planning at all, and to ask themselves if lifting planning restrictions and leaving land use and design decisions free would in the end produce an environment worse than the one they were witnessing. After a fictional application of *Non-Plan* to three actual areas, the final part of the article summarises the main lines of critique to technocratic planning, as it has been developing in the UK in the interwar period and after WW2 (especially after the 1947 *Town and Country Planning Act*). The main

critique here is about the pretence of planners to impose value-based and aesthetical judgements on other people's decisions: such imposition is problematic, because even planner's judgements are approximate and not founded on sound and reliable evaluations. Reflecting on the effect that Jane Jacobs' positions on the rigidity of technocratic planning should have had on planning culture in the UK, but in fact had not, the authors thus observe:

"The planning system, as now constituted in Britain, is not merely negative. It has positively pernicious results. The irony is that the planners themselves consistently talk – since the appearance of Jane Jacob's Death and Life of Great American Cities – about the need to restore spontaneity and vitality to urban life. They never seem to draw the obvious conclusion – that the monuments of our century that have spontaneity and vitality are found not in the old cities, but in the American west" (Banham et al. 1969, p. 443).

Perhaps surprisingly, in the defence of the spatial and formal effects of the diffusion of pop culture, the example mentioned is that of Las Vegas, 3 years before the publication of Venturi and Scott Brown's pamphlet (Venturi et al. 1972). Interestingly enough, significant links between Venturi's perspective (in particular in *Complexity and Contradiction in Architecture*, 1966) and that of Jane Jacobs herself have been explored in literature, for instance by Peter Laurence, who argues that Venturi's book can be seen as a sort of sequel to *Death and Life of Great American Cities* (Laurence 2006, p. 49).

Going back to re-discuss the Non-Plan proposal after 30 years, and re-examining the main features of the British suburban landscape in a Non-Plan perspective, Paul Barker confirms the validity of the original approach when he writes:

"I have increasingly come to endorse the conclusions we came to, all those years ago. Growth that happens without too much prescription is best. It is, of course, fine to lay down some very basic negative rules, and Non-Plan was never hostile to this; for example, this belt of land shall not be built on; or no building in this city centre shall be higher than ten storeys.

But, outside that, as little should be done as possible. Positive planning is all too often a disaster. For a start, it is usually based on incorrect forecasts about the future. No one is clever enough to know, in advance, how cities will grow" (Barker 1999, p. 108)

Here again we can find echoes of the post-positivist epistemological critique that so many authors have been proposing.

Finally, Giancarlo De Carlo in a 1969 conference (later published in English) (De Carlo 2005), vibrantly criticises the social role and the technical legitimacy of architecture (and hence urban planning), paying a specific attention to the educational dimension. De Carlo belongs to a quite heterogeneous group of architects and planners who worked through the 1960s to a critical approach *vis-à-vis* mainstream urban planning in Italy; among them we can also mention Ludovico Quaroni and Giuseppe Samonà, both of whom tried to introduce innovations and different perspectives in planning, mobilising different knowledge forms, paying attention to the societal aspects and fostering a stricter relationship with the urban design dimension, compared to mainstream contemporary planning (Di Biagi and Gabellini 1992).

Uprisings and revolts in universities, diffused on both sides of the Atlantic in 1967–1968, had been in fact anticipated in Italian Schools of Architecture as early as 1964 (De Carlo 1968; Granata and Pacchi 2009). This anticipation can be connected, according to De Carlo, to the lack of legitimacy that architectural knowledge had in the eyes of students in the 1960s, due to two unsolved problems: the substantial failure of a never perfectly matched merge between *Beaux Arts* academic education and technological education on the one side, and the very old and conservative attitude of such schools, which resulted in their inability to tackle the most pressing societal problems.

The main point of De Carlo's critique focuses on the artificial and oppressive distinction between designer and user, both at architecture and urban planning scale 'Architecture has become too important to be left to architects' (De Carlo 2005, p. 13). Such distinction should be blurred in a very different design process, able to actively involve a variety of actors and stakeholders:

"But identifying with the user's needs does not mean planning 'for' them, but planning 'with' them. In other words it means enlarging the field of participation through the definition and use of the plan, introducing into the system a whole set of complex variables which could never be composed into balanced situations except with procedural systems based on a continual alternation of observations, propositions, and evaluations; i.e. the use of scientific method" (De Carlo 2005, p. 15).

At the heart of De Carlo's proposal there is an idea of process planning, based on complex and iterative interaction patterns between designers and users, with the objective to blur this divide and more effectively (and justly) develop design proposals. The relationship between technical knowledge and other knowledge forms (milieu, local, daily knowledge) can be described here as a continuous tension between different polarities,

very different from the traditional technocratic models as well as from the most banal interpretations of participatory planning.

Conclusion. Elements of lasting influence on the planning debate?

Looking back at Jane Jacobs' ideas and at other important critical voices after 50 years, we can ask what the planning discipline has learnt from them, in which way their first insights and suggestions have become nodes of theoretical reflection and in which directions they have been elaborated further. In a short paper as this one it will not be possible to consistently list and discuss all the new directions in planning theory which can be directly or indirectly connected to these voices: we will therefore pick up a couple of points, (somewhat arbitrarily) identifying some interesting developments, and leaving the wider questions open for further discussion.

Reflecting in perspective, two issues seem to emerge as particularly relevant: the core of the epistemological critique, underlying the problems inherent in recurring to simplifying versions of technical and scientific rationality, and the ambiguous relationship, which takes place in the public domain, between technical rationality, knowledge production and power. Both are the object of in depth reflections in Innes and Booher's book on the relationship between planning, decision making and complexity (Innes and Booher 2010), so we will move from their interpretations of the debate to bring the line of argument one step further.

On the first point, following Jacobs, the oversimplification in the explanations of causal links in urban analysis ('simple problems') leads to oversimplify the proposed solutions, and to the dominance of a technical solution-driven approach over a thoroughly critical perspective. In this sense, 'there is no need to appeal to 1970s "negative thinking" to recognize that instrumental reason alone cannot drive social evolution towards sustainable and progressive targets' as Palermo and Ponzini (2014, p. 61) put it. Jacobs and the other authors we discussed anticipated to some extent, in relation to urban planning issues, philosophical critiques to traditional positivist epistemology that emerged in the 1970s and 1980s (Bernstein 1991).

Moreover, complexity studies (Stengers 2000) significantly put the accent on the importance of learning processes (single and double-loop, individual and collective), thus introducing a dynamic dimension in the production and use of knowledge, which both Jane Jacobs (Laurence 2016) and Giancarlo De Carlo advocated for planning processes. The mobilisation of different knowledge forms in complex interactive processes, at the basis of many developments in planning thought in the 1980s

and 1990s, finds here one of its roots (Innes and Booher 2010). According to De Roo, eventually, this true paradigm shift, a sort of scientific revolution, resulted in a change in planners' approaches, which took place around 1990 (De Roo 2010, 2017).

On the second point, the understanding of planning as an activity being influenced by the public domain and contributing in turn to shape it (Friedmann 1987), and its complex relationship with ideas of democracy and citizenship, and ultimately power, with very different ideological orientations (among others, Fung and Wright 2003; Harvey 2012; Mazza 2016), have been a cornerstone of planning debate in the last 30 years, also through the mediation of different conceptions of the public interest (Alexander 2002). While it is not possible to reconstruct in depth such an articulated debate in these conclusions, the critical insights opened up in the 1960s by authors such as Jane Jacobs and others, have certainly been crucial in structuring its main epistemological and political axes.

Looking at specific examples, among other perspectives, collaborative planning theory has since long elaborated and looked deeply into the very initial insight that the neutrality pretence had an intrinsic oppressive dimension, related to systems of power, proposed by Jacobs and other critical voices in the 1960s in a somewhat less systematic way (Forester 1982; Forester 1989; Healey 1997; Fainstein 2000).

As John Forester would summarise a couple of decades later, 'The planners' speech acts perform both technical and political work' (Forester 1980, p. 278). According to Forester and others, the claim to neutrality becomes problematic because either planners and technical experts are aware that they're not being neutral, or they do not acknowledge the limits of technocratic rationality: in Forester's words, this has to do with two typical forms of communicative distortion, which negatively impact on the *sincerity* and on the *truth* of the planning discourse (*ibidem*). In turn, this type of discursive distortions are intrinsically political, in that they are connected to specific features of the planning process, aimed at excluding dissenting voices: 'Echoing the work of Karl Mannheim and John Dewey, Habermas' argument implies that such distortions are increasingly likely in planning if planners become more removed from a democratic planning process' (Forester 1980, p. 281).

Innes and Booher call for the exploration of forms of alternative rationality in collaborative planning, on the basis of three main arguments, deeply connected with the epistemological and political accents of the critiques we've been discussing. The first point is that collective processes aimed at building collaborative rationality increase the chances of mutual learning, which in turn

can guarantee a stronger resilience of decisions in the face of complex and ‘tragic’ dilemmas of collective decision (Innes and Booher 2010, p. 9).

The second point focuses on how collaborative decision making processes are designed and managed, thus trying to identify some basic, common criteria against which to distinguish the appropriateness and effectiveness of different approaches.

Thirdly, Innes and Booher argue that collaborative processes can trigger double-loop learning and can thus have positive effects on the wider decision making context in which they take place, again positively impacting on the overall resilience of decisions (p. 10).

The authors underline ‘how know-how—even the presumably objective, scientific kind—is constructed through a social process’ (Innes and Booher 2010, p. 23), but this is not enough to ensure that social processes per se are able to guarantee sound and legitimate knowledge production with regard to choices in the public realm. Again, the reference to the Frankfurt school, and the constant attention to the way power relations shape ‘understandings, theories, assumptions, and language’ are but a first step to overcome such inherent distortions and to more firmly ground planning processes in democratic debate.

Authors’ contributions

The article has been entirely written by C.P., who is the only author. The author read and approved the final manuscript.

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Availability of data and materials

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