

PLANNING THEORY CONFERENCE
Oxford Brookes University, April 2-4 1998

**Planning theory:
postulates and its true realm**

Paper No. 2

Revised version: March 2000

by **Franco Archibugi**

University of Naples,

Planning Studies Centre, Rome

Post-graduate School of Public Administration, Prime Minister's Office, Italy

Tel: +39-6-71354200; Fax: +39-6-71359021

Email: francoarchibugi@tiscalinet.it

Via Federico Cassitto 110, 00134, Rome, Italy

Planning theory: postulates and its true realm

Contents

1. About this paper
 2. A reference framework for planning theory: some essential postulates
 - 2.1 Logical postulates
 - 2.2 Field or delimitation postulates
 3. The planning process
 4. The planning system
 - 4.1 The planning selection system
 - 4.2 The planning implementation system
 - 4.3 Functional and time interdependencies
 5. Conclusions
- Bibliographical references

Planning theory: postulates and its true realm

1. About this paper

In a previous paper¹, I argued about my uneasiness concerning reflections on planning undertaken by many scholars and professionals of planning (mainly physical planning), which go under the name of *planning theory*.

In that paper I explained the reason why for a long time I personally refrained from entering into that debate, having the fear of risk being captured by a debate (which I felt was relatively uselessness), and to being dragged toward a dangerous *meta-analysis*, which - if mistaken for the possible contents of the *planning theory* - would not only make planning theory impertinent and unfit with respect to the clarity and effectiveness which have accompanied its birth as an academic discipline, but even directly impaired the significance and the effectiveness of planning activities, of which planning theory intended (and, I think, still intends) to be a methodological support.

In that paper I focused my attention on the reasons that maybe were at the base of the wrong way undertaken (in my opinion), reflecting on planning theory, since its noble and well motivated birth²; and I indicated synthetically, the substantive

¹ Specifically in the paper prepared for the Planning Theory Conference, organised by the *School of Planning* of the *Oxford Brookes University*, Oxford 2-4 April 1998 (Title: *Planning Theory: Reconstruction or Requiem for Planning?*).

² Even if the theoretical reflections on planning have remote roots in time

fields of a conceptual and cognitive integration, which could and should become the specific and cultural terrain of a renovated planning theory.

Focusing on the criticism of present trends of the debate on planning theory, I took little account of the fact that my call for a more forceful integration of the different approaches to planning – under the banner of a greater integration of the "procedural" approach, as opposed to the "substantive" one – was not well explained. In other terms, I perceived in my first paper that the way in which that integration of method and substance could be modelled, (which I insisted was the proper and specific field of planning theory)³ had not been probed

(see on this the excursus in a paper of mine from 1992), I believe one can state that among the first works inaugurating a systematic exploration is that of Andreas Faludi, 1973a, accompanied by the well known anthology of some previous works, constituting a background (Faludi, 1973b).

³ This consciousness and warning occurred to me in two ways: 1) from reading and hearing the paper of Luigi Mazza (1998) to the same Oxfordian Planning Conference, also oriented to model, in some way, an implementation system; 2) from comments and criticisms to my previous paper No.1 presented to this Conference, received by Niraj Verma, Seymour Mandelbaum, and E. R. Alexander. The critical comments by Verma, with which I agree fundamentally (and for which I am very grateful) concluded that the paper needed a section showing why the integration among the socio-economic forecasting and the other connections advanced by me, were wanted. I believe that these connections, their description and their motivations require much more than a section! *They constitute, exactly, the proper terrain of planning theory.* This does not exclude that if my claims are not sufficiently described in a provisional way, people risk not understanding anything about what I am saying because of the absence of any kind of references and examples. The comments of E. R. Alexander made me perceive in all its gravity, the absence of a systematic vision of the proper field of planning to which I refer, and incited me to risk a defect of excessive schematism, but not to take arguments for granted or as being well known! I hope that the corrections to my setting of my paper, more formal than substantial, can be considered satisfying by Alexander, whose severe criticism I always find very stimulating even when not shared. The comments of Mandelbaum have almost all been pertinent, and I have

enough. On the other hand, my past indecisiveness toward intervening in the present debate of planning theory – because I was not prepared (or lacking in the required references to other works already prepared) to deal with the alternative planning theory approach, with due extension and exemplification⁴ – is good proof of my consciousness of the limits of the previous contribution.

That is why I needed to integrate the previous paper with a new paper, showing a closer examination of the possible links between procedural and epistemological planning and its different substantive features, by means of a unitary methodological scheme. This scheme therefore is the subject of this paper⁵, aimed at making more intelligible the meaning and objective of the previous paper.

2. A reference framework for planning theory: some essential postulates.

First of all, I need to *delimit* the terrain of planning theory

always appreciated his kind suggestions given on texts like mine that are so distant from his approach and style of writing. I am conscious of the difficulties to take his viewpoint into account in the right manner and to be capable of using them in a way that conforms to their potential quality. I perceive that his conception of planning history pushes him to have a vision of planning theory very different from mine, and my effort to reconstruct an appropriate planning theory field and method goes in a different direction than his. To all three colleagues, to whom I am related over some years of attempts to build a network of contact for a better theoretical determinateness of planning and planning theory, I am very grateful for the help given.

⁴ This is referred to in note No. 35 of the previous paper, to the *Treaty of general planning* which I am carrying out in co-operation with others colleagues, and which could be just the tool to better illustrate what I intend for the specific *realm* of the planning theory.

⁵ Which constitutes a further, more developed but still approximate step toward the awaited treatise on the foundations of the planning sciences.

with regard to its excessive extension⁶, and also excessive meta-analysis of a philosophical-politological type, however useful and fecund it could be. I apply these limits by means of the old scholastic method of establishing some "postulates", i.e. some assertions not discussed but taken for granted – with good reason – as the basis of reasoning.

2.1 Logical postulate

Postulate No. 1 of a planning theory could be formulated as follows:

Planning theory is essentially based on action-oriented analysis and doing, rather than on observation-oriented analysis and being.

By ‘analysis’ we intend any kind of reflections, any kind of reasoning, aimed at improving and making more effective the knowledge. In this case, the knowledge researched is that which is useful to *act*, useful to what *shall or should be done*; rather than to what *is*.⁷ This distinction is that commonly made

⁶ To which we made reference in the previous paper (sec.3.2 and 3.3).

⁷ This distinction, in philosophy, is as old as philosophy itself: it is the distinction between *to be* and *should be*; between the "truth", and the "good" or the "useful"; between "science" and "ethics"; or, in economics, since the beginning, between "science" and "art", theory and policy, political economy and economic policy. A modern treatment of the problem has been developed by some theorists of “operational research”; among the best is that of C. West Churchman (1971) and of P. B. Checkland (1981). At IIASA (August 1980) some operational research specialists debated, together with philosophers and social scientists, the “scientific” base itself of operational research: within which it was reproducing the same ancient dilemma, methodological and epistemological, between “positivist” and “normativist” approaches. In that occasion, a vast consensus derived on the need that operational research – which from the methodological point of view I consider very similar to that of strategic planning (and which I call “programmatic” or “planological”

between "normative analysis" and "positive analysis". The conventional approach of all operative sciences (those, like planning, which involve decisions and actions and are connected anyhow to practical activities) is such that the knowledge coming from positive analysis is indispensable to guide the normative analysis.⁸ The latter – in order to not violate "reality" – should be based on the positive analysis, which is considered a required premise for the policy. "To know in order to act (or to decide) well". The knowledge is also considered the basis for the feasibility of action plans or programmes.

However, action (or decision)-oriented analysis introduces a new (say, epistemological) element: that the observation-oriented or positive analysis is itself impacted, better still conditioned, by the action-oriented (normative) one. It is a question of the well-known "problem solving" approach: which induces the choice of variables (and the relations among variables) to submit to the feasibility analysis, on the basis of hypothetical behaviours (being a matter of human and social behaviours), which are never axiomatically "positive".⁹ It is not necessary here to deepen the character of the "normative" approach in planning, as applied in natural sciences¹⁰; it is

approach) – could be freed from any illusion of being founded on a preventive positivist approach based on the findings (empirical or theoretical, it doesn't matter) of rules, constants, or – why not – laws of behaviour. (See the collection of papers from the cited meeting at IIASA in the volume edited by Rolfe Tomlinson and Istvan Kiss [1984], and – in a special way – the introductory papers by Kindler and Kiss [1984], by Checkland [1984], and by Farkas [1984]; and finally the last paper of Rolfe Tomlinson [1984]).

⁸ For a general vision of the distinction between "positive" and normative" in the traditional sense, in the evolution of economic thinking, see Chapter 1 of the work by Hutchinson (1964), which has rightly become a classic on the subject.

⁹ This is the conclusion to which arrives the "rethinking" of the epistemological basis of operational research, of which we have spoken in note 7 with related citation of sources.

¹⁰ For a deeper analysis of the question see, among others, a very beautiful

sufficient now to assert it as a postulate of planning theory for any type of analysis and for evaluation of planning itself. Whilst in other traditional social sciences (political science, economics, etc.) it could be the presumption - however questionable - of a positive analysis distinct from a normative analysis, in planning (and in its "science") nothing is positive, and *all* is entirely "normative."¹¹ Moreover there is the presumption that the behaviour of phenomena be *entirely dependent on decisions or actions*, and therefore it would be illogical to think the opposite. Ragnar Frisch called this illogical thinking, in a friendly manner, "half-logic".¹²

From Postulate No. 1 above defined, we can derive another (a Postulate No.1-plus), absolutely trivial postulate¹³, that sounds as follows:

essay by Gunnar Myrdal (1972) on "how scientific are the social sciences?".

¹¹ The fact that "normative" has been used in the past as a necessary complement of "positive", might produce a misunderstanding when I state that in planning all is entirely "normative". It may be more useful to change the word and to state that all is "programmatic", i.e. nothing must be based on past experience as a source of "objective" rules or laws of behaviour; and that, on the contrary, all should be based on *decisions* or *actions* looking toward the future, including, obviously, the constraints operating always in the future, as combination of preferences – more or less negotiated - among different alternatives of decisional packages.

¹² He wittily defined this half-logic as follows: " It is as if the policy maker would say to the economic expert: 'Now you, expert, try to guess what I am going to do, and make your estimate accordingly. On the basis of the factual information I thus receive I will then decide what to do'. The shift from the on-looker view-point to the decision view-point must be founded on a much coherent form of logic. It must be based on a decision model, i.e. a model where the possible decisions are built in explicitly as essential variables. It is time to move away from this sort of half-logic and begins to approach the programming problem on a more rational basis". (Frisch, 1976 p.91-92).

¹³ So trivial, that in my classroom we call this the "stupid" postulate. But also the teachers, sometime, forget and neglect stupidity!

Planning theory presupposes an ex-ante analysis, and not an ex-post analysis.

This postulate, it seems to me, works simply to exclude as useless many wanderings on past experiences (to which planning theory often succumbs). These wandering or rambling talks, always interesting and sometimes useful to know, introduce however the risk of assuming as data (in the decision process) facts which were surely non-existent in the *ex-ante reality* to which any decision process is applied; and to diminish consequently the examination for the research (analysis) of probably more relevant and prevalent existing data, i.e. those inherent to the set of decisions involved and to new problems raised and to be solved. Never has it been so dangerous, as it is in planning, to look at the past.

Postulate No. 2 of planning theory, I think, can be formulated as follows:

The action-oriented analysis is essentially oriented toward optimisation.

This postulate derives directly from the first. If the analysis is ex-ante action-oriented - and not to the nature of things observed more or less ex-post, the problem of "constraints" belongs to the phase of defining decisional objectives: it cannot be anything *but* that of achieving the best possible result (given the constraints) with regard to the objectives.¹⁴

The fact that in the reality (ex-post) this optimisation is not obtained, or is obtained in a limited way, does not have any

¹⁴ The word *optimisation* expresses in all languages that concept of maximum result, subject to the conditions, that is the foundation of the rationality, and that can be also expressed, by the words *effectiveness* and/or *efficiency*. It is a question therefore of a *ratio* that has had and still has many nomenclatures (all equivalent, for our purposes) among them: aim/mean; goal/constraint; result/effort; product/factor; output/input; benefit/cost; performance/resources; and so on.

relevance for the true planning theorist. This could concern the *temporis acti* analysis, not the *temporis agendi* analysis. It means that this could interest the onlooker or – say – the historian of human behaviour, but not someone who must prepare a plan or help suggest the planning decisions.

This postulate should cut off - as falling *outside the terrain of planning theory* - all endless discourses on the "bounded rationality", which so widely occupies the political science scene of our time. Even admitting - but personally I would be very resistant to concede it¹⁵ - that in the human and social sciences a "positive" approach could be developed; in other terms, even admitting that an ex-post scientific analysis of behaviours and the findings of regular behaviours (to some people even determined directly from the "theory" i.e., from the innate "rationality" of the behaviours), could be safe from logical error, all that has nothing to do with planning theory, as evidenced by the effect of the two postulates suggested above. It *may* have something to do with the positivist "*sciences of being*" (I repeat, admitting but not conceding, that as such they could be the sciences concerning human and social action), but not with the programmatic "*sciences of the action*" (or *praxeology*)¹⁶, as planning does.

What meaning could a "bounded" rationality have for the planner (or the planning theorist)? That in the moment when he or she should "decide", he or she could say: "*The best solution is*

¹⁵ Since it does not seem to me legitimate to raise a doubt of this sort here in the seat of planning theory, but – instead – in the seat of general political science, and in the mood of a "positivistic" approach. In any event, see one of my papers on the "Programming Approach", concerning the contribution of Ragnar Frisch, Jan Tinbergen and Wassili Leontief on this matter (Archibugi, 1999); and the already cited essay by Gunnar Myrdal (1972).

¹⁶ I state that the roots of such an assertion can be found in most of "american" theory of society: overall in Talcott Parson (1951); but also in the american philosophy of knowledge (or pragmatism) : overall in Dewey (1944) or in C.L. Lewis (1946). The foundations of Praxeology – as we know – have been defined later: Kotarbinski (1965) and Kaufmann (1968).

*that one : but I am satisfied, or I prefer this other one which is not the best...Why? don't ask me, because I don't know!"*¹⁷ In fact, if he or she could know why, the decision-maker or the planner would have the simple duty to include the reason of the choice in the list of the objectives he or she is pursuing, and in the trade-offs (i.e. "optimization") among such objectives that any decision inevitably involves.

We can admit, in practice, that the decision-maker could be *unconsciously* unconscious of her or his preferences; but whether he could be *consciously* unconscious is a matter concerning more psychiatry than psychology.

How could this "bounded" rationality concern the planner, who is existing just to make explicit and conscious motivations and goals either of decision-makers or of themselves as planners? And how it could really concern the planning theorist, who should order the process itself by means of which to organise in the best or the most effective way the decisional system of the planner, is an academic mystery!

With Postulate No. 2, any discussion on the concept of "rationality" – Cartesian or not Cartesian, bounded or not bounded – should also fall outside of the terrain of planning theory. This discussion belongs directly to the field of philosophy and epistemology (for which I do not believe planners are especially equipped).

2.2 *Field or delimitation postulate*

The first two Postulates above enunciated, are interesting for all sorts of planning (from the more universal to the more personal). Since planning theory usually refers to the sort of planning which *grosso modo* is ranged under the common name

¹⁷ And even more exhilarating it would be if he or she states: "...*Why? Because Prof. Simon says that normally the decision-makers, like me, are satisfying and not optimizing...*".

of *public* (or communitarian, or collective) planning, another postulate (useful to free the terrain of other equivocal and useless discourses) is:

Postulate No. 3

The subject of (public, etc.) planning is a (officially legitimate) collective entity.

or, expressed differently:

The decision-maker of public planning is an institution.

To this Postulate No. 3, typical for public planning, is appended a set of *corollaries* (or propositions by immediate deduction), which deserve to be recalled and kept in mind in our searching for a specific field of planning theory:

1. The "planner", therefore, is that institution; i.e. that public entity, officially recognised and legitimated.¹⁸
2. The expert-consultant, who we usually call 'planner', constitutes - as a person - the *proxy* of the institution.¹⁹
3. The "planning society"²⁰ is a system of institutions.

¹⁸ By official legitimisation we do not refer to the "stamped paper" or the "red tape"; but to the existence of official title to *represent* the will and the interest of societal groups and categories of citizens.

¹⁹ In this way, as the advocate of any person (individual or juridical), he identifies him-her-self with the interests of that institution as such, by associative willingness or constitutional system.

²⁰ Let me recall a definition of the planning society by an [USA] *National Committee on National Growth Policy Processes* created jointly by the American President and Congress in 1976: "The Committee does not advocate a *planned* society. We urge that America become a *planning* society. In the long run, we believe that intelligent planning will actually reduce burdensome governmental intervention in matters affecting the private sector. Much governmental interference in the economy now consist of ad hoc reactions to situations which have become acute because they had been ignored until they became intolerable. With the benefits of

4. As a system of institutions, the problem of establishing a bridge between individual preferences and an abstract social preference,²¹ becomes irrelevant. The unique bridge that planning theory can and should recognise is the "political system". Instead of "social preferences" it is more suitable to speak of "political preferences".

5. The planning expert-consultant is committed to "rationalise" (i.e. to analyse the consistency of) and coordinate the decisions of the institutions for which the consultant is working, by means of the formulations of "plans", which are the outcome, precisely, of interaction or co-operative processes between policy-makers and analysts-planners.

6. With the increasing number of political institutions at all levels involved in planning responsibilities, so also increases the number of institutions entering into the planning process. The task of the expert-planners becomes the formulation of plan-drafts for the decision-makers (in the above said interaction or co-operative processes), taking account also of the appropriate levels of decision (or of the decisional consistency among these levels).

7. The expert-planner, therefore, must know how to rationalise

foresight, the Committee expects that any necessary government intervention will be more considered, more timely, and less heavy-handed..... This need not be a complicated process. Americans can resolve that any process we create will be compatible with freedom, and will preserve, to the greatest extent possible, the widely dispersed initiative and creativity we value so highly. The oppressively technocratic and centralised atmosphere that has surrounded the image of planning can and should be put behind us".(USA-Advisory Committee on National Growth Policy Processes, *Forging America's Future: Strategies for National Growth & Development*, Report, GPO, 1977, p. 11-12). See also the final chapter, *The Planning Society*, with which Faludi closes his well-known book, *Planning Theory*, 1973.

²¹ As has been assumed (just to briefly clarify) in the old "welfare economics" (by Pigou and followers) before the "impossibility theorem" (by Arrow and the "social choice school"). For some master treatment of the issue, see Frisch (1976) and Johansen (1977).

even the possible conflicts between different institutions and the inconsistencies and incongruencies among different decisional levels or scales. The more the institutions and the decisional levels or scales of a given society, the more planning is necessary (planning being the rationalisation and optimisation among unlike and often opposed decision-makers preferences).²²

In sum, the postulates (and also their corollaries, which constitute a matter closer to the considerations of the planning theorist) should be considered as such and taken for granted by the planning theory. They should not be the object of further debate, exactly in order that planning theorists do not become dragged into dealing with questions which are beyond their scientific competence and in order they do not lose the researching and identifications of their own appropriate field of study and consultancy.

However in what direction, instead, should planning theorists exert their visual scope, starting from the postulates stated above? We will try to outline the contours and the physiomy of such direction (intentionally choosing a broad approximation, and also a provisional exemplification) in the aim of not leaving completely in the dark the positive aspect of this invoked effort of reconstructing planning theory.

With the help of these few postulates and corollaries - which however allow us to get rid of a sequence of useless and deviating discourses - I will trace the boundaries of *the realm of the true planning theory*, both as *process* and as *contents*. I will sketch, for the moment, a summary and essential model of this realm, proposing - with time - to describe it piece by piece

²² This corollary goes against a popular opinion that planning is possible when institutional and political freedoms are scarce and the decisional levels are few. From the corollary we derive that it is precisely the natural clashing of interests and inconsistency coming from the institutional pluralism, (as from, in general, the decisional decentralisation which prevails in the so called "market") that requires a larger co-ordination and rationalisation of decisions, i.e. planning.

(hopefully in cooperation with other colleagues).

3. The planning process

The study, the analysis and the definition of the planning process can be considered - in my opinion - the proper field, realm and task of the planning theory. It is also the field in which until now we have achieved major progress (before many planning theorists diverted planning theory out of its boundaries).²³ Faludi, whom I consider the first complete "systematiser" of planning theory, dedicated himself almost exclusively to the planning process and its various issues and essential aspects. In short, planning process analysis is a recognised and well cultivated field of planning theory.

Personally, I would have very little to add to the efforts already deployed by others, if not to absorb, in the best schemes laid out, the sharp distinction²⁴ between phases as with the "selection phase" and "the implementation phase" in the planning process as a whole. I myself have followed this advice in my text-book on *Principle of Regional Planning* (1979), from which I take here (with few adaptations) the following very

²³ This is also the field where planning theory, before being configured as an autonomous field of research (say, with Faludi), had many scholars working from related disciplines (for instance, system analysis and policy sciences) who could be considered the forerunners of planning theory. And it is not by chance that Faludi himself, as many others before and after him, - e.g. Chadwick, McLoughlin, Catanese, Cooke, Peter Hall etc. - all have used schemes - more or less didactic - already proposed by some of these forerunners. (On the various disciplinary components confluent into planning theory and into new discipline which I would call "planology", see other writings of mine (1992, 1996, 1998).

²⁴ This distinction between the selection and implementation phases was recommended insistently and continually by Frisch, one of the forerunners of planning theory, in his late writings on the methodology of economic planning, republished posthumously in 1975. For comments on this distinction, see also Johansen (1977) and Archibugi (1999).

simplified scheme of the planning process (Fig. 1); notwithstanding I consider it particularly useful for its clear distinction of the levels and phases of planning process, so necessary for the correct development of all current discourses on planning.

The scheme of **Fig.1**, distributes the basic moments and the subjects of planning, along two main functions: the *selection* or *choice* one, and the *implementation* one, as recommended. Of course, such a simplified scheme requires many adaptations to real circumstances. Its working system is applied at every stage or level of planning (since usually there is always a superior and inferior level at any stage or level which can sensibly reshape the process itself). It is necessary to locate and insert the process in an actual way, keeping in mind the circumstances, that is the actual level of decision, and the way in which the current political system can modify or alter the nature of its decision-makers and of the participants to the planning process as negotiators (stakeholders); or of the final beneficiaries or target people, and of the intermediary operators; and so on.

4. The planning system

Where planning theory has achieved minor results, in respect to those which could have been achieved, has been in the substantive side of the analysis. By "substantive" I mean the part concerning the deepening of the links and the integrative aspects between different *types* and *scales* of planning. If the different planning applications, or plans, or planning typologies (for instance: welfare, development, housing, health, accessibility, as "types", or suburban, urban, regional, national or international as "scales") represent the substantive side of planning, their *functional interrelationship*, their *interdependence*, represent the substantive side of the planning theory. This side has been - as repeatedly said above - neglected too much by the planning theorists, with serious damages on the

implementability and feasibility of the plans.

Such damages derive, in short, from the fact that - since the evaluation and implementation of the "optimalities" of an individual plan decision and choices, and the capacity to apply these decisions and choices, depend highly upon decisions and choices and capacity of *other* substantive plans, - a systematic and organic co-ordination of the planning process of an individual plan in question, with the planning processes of other plans present in the operational environment of that individual plan, constitutes an essential factor and condition of success or failure of any planning.

In spite of the evidence of this interdependence, the relations between those different substantive plans are very poor, and the attempts to order these relationships in a common "planning system" (*which could have been a very important specific field of the well intended planning theory*) have been even more scarce.

Here I will try to model this "planning system" in order to indicate the type of analysis and reflection I consider the proper field and realm of planning theory (together with that already examined of the planning as process), and on which we should - in my opinion - found its "reconstruction".

Even in this case, of course, such "modelisation" or "schemitisation" is oversimplified. Moreover, the single items or "entries" used to articulate the different dimensions are quite tentative and provisional, as indicative and impressionistic suggestions for the further work on which the reconstruction of planning theory should be focused.

What I wish to insist - from now on - is to recommend the clear distinction even in the modelling of the planning system between the selection stage and the implementation stage. To the extent that I will suggest two parallel schemes of planning system: one for each stage. However, as we will see, I do not exclude, nor even underestimate the importance of defining further a tight, actual, interdependence between the two schemes.

To be more precise, the planning system which we begin to define and describe, has nothing to do with a positive analysis of society, or societal analysis, of which we have many expressions (Parson²⁵, Isard²⁶, and many others), even if some resemblance should appear. In short, the planning system is not concerned with the existing "*social structure*" as such; rather it is concerned with the society's management and planning.²⁷

The planning system is a complex system.²⁸ In other terms, it concerns the entire social life and includes all possible decision-makers which act within it. It is a holistic system. As such, it must be designed following an exhaustive model of all possible fields of decision-making and all decision-makers which play a role in social life. Its territorial dimension is "global" in the literary sense: it reaches the planetary scale.

The planning system must be "structured" through a conglobating taxonomy, evidently multi-dimensional, which is only fitting with its complexity. The multidimensionality, while fitting with the complexity, does not fit, but instead conflicts with, managerial practicality; with the need for a rapid perception of the interrelationship on behalf of operators, planners or decision-makers. This is why a taxonomy limited in the dimensions and extension of items is more suitable. However dimensions, extension and nomenclature (systematic naming) of the taxonomy are quite optional; and it would be good if they could become the field for an intense, propositive, study by planning theory and theorists. It would also be good if, after a certain time and sufficient critical debate, planning theorists could achieve in some way, a common, conventional,

²⁵ The "social system" by Parsons (1937).

²⁶ The "general theory" by Isard (1969).

²⁷ This is the reason why planning theory does not need to be flanked by a theory of society (as argued by Dyckman in the quotation included, and by me contested, in my previous cited paper to the Oxford conference).

²⁸ Truly this seems a tautology: any system is complex by definition.

taxonomy,²⁹ in order to render the systemic framework of the interdependencies more ‘user-friendly’, and to render a faster language of understanding in the planners’ scientific and professional community.

In order to facilitate the understanding of what I intend by planning system, I will design only a *three*-dimensional model, which seems to me sufficient to include a holistic taxonomy that sufficiently explains the main planning features. The system, as said, will be divided into two models, referring to the two basic stages of the planning process: the *selection* stage and the *implementation* stage. At the same time, the system will be split according to temporal dynamics.

It is obvious that the two systems, according to the process and according to the temporal dynamics, could be merged into a unique multidimensional model (and expressed mathematically by a consequent hyper-matrix). But this could jeopardise or diminish something in the perception and understanding of the model, without gaining anything in its utilisation.³⁰

²⁹ How useful would be that some professional and academic associations, after adequate debate, could go as far as to agree on such a taxonomy, and related glossary!

³⁰ Except for the case, unlikely at the moment, of a utilisation in quantitative versions (with related mathematical modelling) for which, at the present, I can’t see the utility. Among the most interesting modelisations (inevitably of a “holistic” character) which I met in the planning literature is that well known work by D.L. Foley (1964), included in the effort of M.M. Webber (1964) to explore the a-spatial aspects of the urban structure (and already used in my *Regional Planning Handbook*, 1979). I have the impression that the roots of the Webber/Foley model, strongly anchored in urban studies, have also clearly constrained it. As well as the other important quantitative spatial modelisations of the literature: for instance those of Britton Harris (1965a, 1965b), J.W. Forrester (1969), W.L.C. Wheaton (1967, 1974), A.G. Wilson (1968, 1974). In their entirety, these modelisations were – in spite of their practical ends – limited by a “positivist” and “interpretative” approach; and therefore – in my opinion – they were and are not so operational as the model outlined here (in the hope, however, that it could be further articulated and qualified).

4.1 *The planning selection system*

The planning selection has been identified, above, as one of most important stages of the planning process. (see Fig.1). On it is based the "strategic" nature of planning, the determination of its objectives, its substantive features and issues. In the selection stage, we have to decide *what* we must do, and *what* the plan is aimed at.

The basic dimensions of the selective, (or strategic, or decisional) model can be three:

1. *Aims of Utility or Welfare* (Final Goals): **[Dimension I]**.
2. *Policies or Means* (Intermediary Goals): **[Dimension II]**
3. *Territorial Distribution* (Spatial Goals): **[Dimension III]**

Dimension I, that of the utility or welfare aims, can be articulated through a taxonomy, corresponding to a satisfactory classification of all factors of *social* or *public* welfare, possibly with any exclusion. Suppose this list could be enunciated as follows:

- a. basic needs
- b. health
- c. public safety and protection
- d. housing and physical environment
- e. social integration and social defence
- f. learning and education
- g. recreation and cultural needs
- h. accessibility
- i. political participation, and so on.

Dimension II, that of the policies and means, concerns the classification of the types of modalities which can be employed to achieve the welfare goals, and – first – the economic-financial boundaries for the achievement of these goals. Therefore the

articulation of this dimension can follow that of policies concerning the achievement of the social and public welfare goal of the first dimension:

- a. policy for basic needs assistance
- b. incomes policies
- c. policy of services
- d. health policy
- e. employment policies
- f. transport policies
- g. school policies, and so on.

And last, Dimension III of the selection planning system concerns the *territorial* scale, and consequent spatial goals. In public planning, the territorial scales to which it is reasonable to measure the welfare status and goals, and the effectiveness of policies aimed at defined objectives, can be:

- a. the urban community³¹
- b. the national community³²

³¹ Personally I do not believe that the welfare goals can be defined, nor can policy effectiveness be measured, at a scale inferior to the "urban system" (whose minimum threshold can be not inferior - at the present concept and requirement of quality of life - to 500,000 citizens, at least in the advanced western countries. See also the findings of a European multinational research performed by the European Commission directed by me (Archibugi, forthcoming)). Who think differently could introduce sub-urban scales.

³² The subnational, regional, scale is largely present in the mind of planners because the existence in many countries of an intermediary territorial authority between the national country and the urban community. However my opinion is that these scales would be improper for many measures of social or public welfare (too big for a proper urban public welfare and too small for a proper national public welfare) and consequently also improper for the implementation of adequate policies. Among the national community and the urban community (in the minimum threshold concept above referred) I do not find sufficient reasons for a

- c. supranational community (if existing)
- d. the planetary human community.

All this is expressed in **Fig.2**.

As already stated, Dimension I is the place where a consistency or compatibility analysis is made among all the goals for an entire community of reference. Dimension II is where a consistency or compatibility analysis is made among the goals and the different means at their disposal for each goal achievement and, mainly, the economic-financial availability of these means. Dimension III is where people evaluate the consistency or compatibility of the plan of the community of reference and the plans of the "other" communities of the context, including those a superior level or scale of territorial representation (to the last dimension belongs the treatment of any kind of issues such as the subsidiarity principle or – more generally – federalism issues).

The relation between the three dimensions is the checking tool through which one can realise the examination of consistency and compatibility between all plans, and all related decisions; and between the general decisional context or environment.

4.2 The planning implementation system

Implementation has been identified, above, as one of the two essential stages of planning (see Fig.1). On it, we base the operational articulation of planning, its control of effectiveness

meaningful measuring of the quality of life and the welfare targets; for that the eventually existing administrative or political entities, should be reduce to the urban system or scale concept. If some peculiar, particularly impacting ethno-cultural motivations are manifest at regional scale, people should assimilate this case to the national community case. (Archibugi, 'The Ecological City, etc.', 1997).

and ongoing evaluation, and all its political and procedural features and issues.

With the implementation stage we must decide *how*, or *by which way*, to implement *what* we have decided to do in the selection stage.

The logical priority of the selection problem with regards to the implementation problem is undeniable. It is suitable that we act when we know a reason for our action. However it is also undeniable that from our action we also derive (*as feedback*) new perspectives regarding our preferences.³³

In the field of public planning, (as asserted in Postulate No. 3), where the subject of planning is the institutions, the implementation problem includes not only *how* to do, but also *who does what*. Any modelling of the implementation system has to take account of this. It implies a degree of co-ordination of effectiveness between the planning operators, i.e. institutions.

As with the planning selection system (Fig. No. 2), even for the planning implementation system the basic dimensions of the operational model or scheme can be three (see **Fig. No.3**). They can conform with the decisional or strategic model and be articulated as follows:

1. The *policies institutions* (governmental agencies, by sector of services and/or responsibility). [Dimension I]
2. The *societal or civil institutions* (non governmental agencies including enterprises and households). [Dimension II]
3. The *territorial institutions* (the agencies, governmental and not, by territorial jurisdiction) [Dimension III].

Dimension I, that of policies of institutions, includes all governmental agencies in some way involved in the management of the goals of the decisional model, and - as far as

³³ Wider references to this kind of argument can be found in the interesting collection of papers on "social action" edited by Seebass and Tuomela (1985).

possible - organised in conformity with Dimension I of the selection model. Its taxonomy corresponds to the governmental organisational charts (for instance: for the basic needs, the social welfare agency, ministry or other; for the health, the health policy agency; for the accessibility, the transport agency; and so on).

Dimension II, concerning societal or civil institutions one, includes the *non governmental institutions*, whose decisions and actions can have and not negligible impact on the implementations of the goals and policies of the strategic mode. They are essentially, with relative subentries:

- a. the *enterprise system*, which operates in the *for profit* market and has an overabundance of positive and negative impacts on the plans objectives and policies (of the strategic model);
- b. the households, the final target institutions of the majority of the plans objectives, and which may constitute - at least with regard to the selection of objectives - an important partner of the governmental agencies for the definition of the objectives.
- c. the "*third sector*" organisations, or "*non-profit sector*", which are agencies and operators peculiarly interested in the plans' implementations, and so a powerful ally of the governmental agencies in this purpose.

And last, Dimension III, concerning the territorial scales and, therefore, the consequent spatial objectives which have been indicated in the territorial dimension of the strategic model, includes all agencies, governmental and not-governmental, which operate with a territorial jurisdiction. They can be:

- a. the urban agencies;³⁴
- b. the national agencies;

³⁴ In every country the spatial and territorial agencies are in fact (as said above) for more than only one level and scale (the urban one). This means that the objectives identified in the plans according to the essential territorial articulation of the strategic model, will be related to agencies and authorities of more than one level (from the local to the national).

- c. the supranational agencies;
- d. the world agencies.

From this list of dimensions, and from their taxonomies is derived the actual model of the implementation system (Fig. No. 3).

4.3 Functional and time interdependencies

The two proposed schemes aim simply to provide a framework and stimulate analysis of all the factors to evaluate for consistency and compatibility: a) in the selection planning process; and b) in the implementation planning process.

In the selection (or formulation, or preparation) process of plans, any preference function expressed (with or without concertation and negotiations among interested parties or stakeholders) without a contextual framework and compatibility analysis of all factors at stake, risks being a "sub-optimal" or precarious decision. In sum, it is question of very partial and ephemeral optimality.

In the implementation (or management) process of plans, any action undertaken by an institution without taking account of actions simultaneously undertaken by other institutions interacting in the same environment with the plan, risks being stopped and annulled, constituting a waste of resources and energy. (This is the actual "story" of the planning in several countries in the past decades).

Co-ordination, as imperative of any multidimensional management, at least has the effect of a wider and more conscious evaluation of all factors at stake. Even if it could fail in actual and operational effectiveness, the reference to an implementation framework, as above conceived, would be useful to enlighten possible conflicts and to make decision-making easier for operators; such that it could be called

"spontaneous" planning.³⁵

But in order to make this co-ordination among institutions effective, it is necessary that the contents of decisions and choices be co-ordinated, well-known, and identified in a broad framework. Otherwise the co-ordination operates in darkness, an end in itself, sterile and even dangerous.

For that reason, it becomes indispensable that a permanent comparison between the two systems, as separately conceived, of selection and of implementation, be operational (see Fig.4). Through this comparison we can put people in a position to control and monitor both the validity of the strategic or selective planning process and the implementation and organisational planning process. The possibility to move with consciousness of causes and effects from one system to the other, from a plan to the other, from a scale to the other, could strongly increase the quality of the planning system; to the extent that the difficulty of conceiving and implementing a plan, every kind of plan, *without* the presence of those comparison means becomes evident or obvious (as, on the contrary, is current practice).³⁶

Confronted with this vision and perspective, we can ask ourselves what sense it may have on many current discourses on planning – those, for instance, which compare or prefer a “blueprint” method to an “incrementalist” one, a “generalist” (or comprehensive) method to a “case-by-case” one, and so on – all issues which are marketed often as “planning theory”, but which derive their existence precisely from the absence of an adequate and appropriate planning theory! And even more distressing – always with respect to that vision – is when, in support of this or

³⁵ Is this “spontaneous planning” not similar to the idea of a “planning society,” which a joint committee (USA Congress and President) outlined in the 1977 report above evoked (US Advisory Committee on National Growth Policy Processes, 1977).

³⁶ In effect this occurs implicitly. And without the assurance of an explicit and systematic analysis, without a “check list” of all the interdependencies in play. Planning theory, which we argue for here, consists in putting in evidence, first of all, this checklist.

that methodological argument, people bring forward actual cases or life stories (of plans). And few think that everybody could find some supporting story or example for a peculiar thesis or method.

Finally, it would be also useful for both planning systems (selection and implementation) to compare the diachronic state (see **Fig.5**). Any system is subject in time to variations which need evaluation, in order to avoid achieving – when the system is used (as in our case) as a diachronic or taxonomic tool of evaluation – intertemporal comparisons through parameters which have changed themselves with time. (This is a very common cognitive mistake, which is difficult to avoid in the collecting of current data).

5. Conclusions

In conclusion, this "zooming" picture has intended to provide only - as said at the beginning - a rapid sketch of what should be the business of planning theory, to be a true planning theory. This sketch supports the considerations, developed in another paper already cited³⁷, about a certain uneasiness with the current trends of planning theory as a whole.

The planning process and system outlined in such a way should be as decompressed from its compactness through a critical analysis. The hypermatrix which springs from the system schemes should be examined in each of its cells, in order to increase the understanding of the interdependencies which are produced within them.

In this manner, planning theory could gain important cognitive advancements and provide a constructive (rather than simply destructive) help to planning itself.

³⁷ We refer always to the paper presented to the *Planning Theory Conference*, Oxford Brookes University, 2-4 April 1998: *Planning theory: reconstruction or requiem for Planning?*

BIBLIOGRAPHICAL REFERENCES

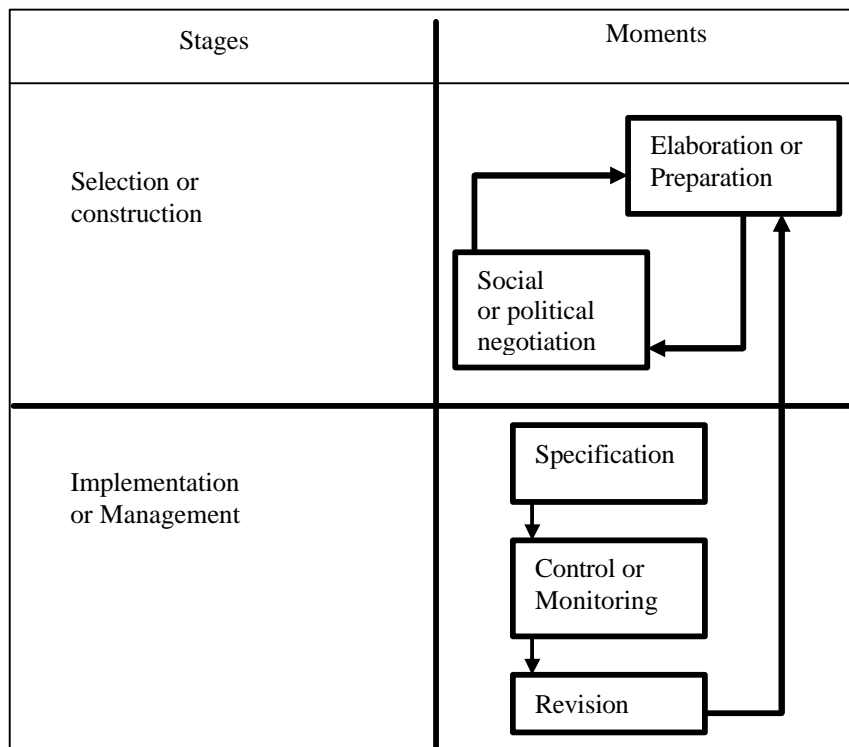
- Alexander R. Ernest (1998). *Rationality Revisited: Planning Paradigms in a Post-postmodernist Perspective*. Planning Theory Conference, Oxford Brookes University, 2-4 April, School of Planning.
- Archibugi Franco (1992). *Introduction to Planology: A Survey of Developments Toward the Integration of Planning Sciences*. Rome: Planning Studies Centre.
- Archibugi Franco (1992). *Towards a New Discipline of Planning*. The First World-wide Conference on Planning Science, Palermo, 8-11 September 1992, .
- Archibugi, F. (1996), "Toward a New Discipline of Planning", *Socio-Economic Planning Sciences*, Vol.30, No 2.
- Archibugi F. (1998). *Planning Theory: Reconstruction or Requiem of Planning?*. Planning Theory Conference, 2-4 April 1998, Oxford Brookes University, Oxford Brookes University School of Planning.
- Archibugi Franco (1999). L' approccio programmatico: considerazioni di metodologia basate su i contributi di Frisch, Tinbergen e Leontief. [The "programming approach": N.Acocella et al., Eds, *Saggi di politica economica (in onore di Federico Caffè)*. Milano: Franco Angeli.
- Catanese James Anthony and W. A. Steiss (1970). *Systemic Planning: Theory and Application*. Lexington, Mass.: Heath Lexington Books.
- Chadwick George (1971). *A Systems View of Planning: Towards a Theory of the Urban and Regional Planning Process*. Oxford: Pergamon Press.
- Checkland P.B. (1981). *System Thinking, System Practice*. New York: Wiley.
- Checkland P. B. (1984) . Rethinking a Systems Approach. In: R. Tomlinson and I. Kiss, Eds, *Rethinking the Process of Operational Research and Systems Analysis*. Oxford: Pergamon.

- Churchman C. W. (1971). *The Design of Inquiring Systems: Basic Books*.
- Cooke Ph. (1983). *Theories of Planning & Spatial Development*. London: Hutchinson & Co.
- Dyckman W. John (1969). "The Practical Uses of Planning Theory." *Journal of the American Institute of Planners*, (35): 300.
- Faludi A. (1973a). *Planning Theory*. Oxford: Pergamon.
- Faludi A., Ed. (1973b). *A Reader in Planning Theory*. Oxford: Pergamon Press.
- Farkas J. (1984) . Change in the Paradigms of Systems Analysis. T. R. a. K. I., *Rethinking the Process of Operational Research and Systems Analysis*. Oxford: Pergamon.
- Foley D. L. (1964) . An Approach to Metropolitan Spatial Structure. M. M. Webber, *Explorations into Urban Structure*. Philadelphia: University of Pennsylvania Press.
- Forrester J. W. (1969). *Urban Dynamics*. Cambridge (Mass.): MIT Press.
- Frisch R. (1964). An Implementation System for Optimal National Economic Planning Without Detailed Quantity Fixation from a Central Authority. F. Long, *Economic Planning Studies (by Ragnar Frisch)*. Dordrecht: Reidel 1976.
- Frisch R. (1976). *Economic Planning Studies*. Dordrecht: Reidel.
- Gottinger W. Hans (1983). *Coping with Complexity: Perspectives for Economics, Management and Social Sciences*. Dordrecht: Reidel.
- Harris B. (1965a). *Organizing the Use of Model in Metropolitan Planning*. Berkeley: California State Office of Planning.
- Harris B. (1965b). "Urban Development Models: New Tools for Planning." *Journal of the American Institute of Planners*.
- Hutchinson T. W. (1964). *Positive Economics and Policy Objectives*. London: George Allen and Unwin.
- Isard W. (1969). *General Theory, Social, Political, Economic and Regional*. Cambridge Mass.: MIT Press

- Johansen Leif (1977-1978). *Lectures on Macroeconomic Planning*. Vol.1: A General Aspects. Vol.2: Centralisation, Decentralisation, under Uncertainty Planning. Amsterdam: North-Holland.
- Kindler J. and Kiss I. (1984). *Future Methodology Based on Post Assumption*. R. Tomlinson and I. Kiss, Rethinking the Process of Operational Research and Systems Analysis. Oxford: Pergamon.
- Mazza L. (1998). *Designers of the future: certainty, flexibility and time in land use planning*. Planning Theory Conference, 2-4 April, Oxford Brookes University, Oxford, School of Planning.
- McLoughlin J. B. (1969). *Urban and Regional Planning: A System Approach*. London: Faber and Faber.
- Myrdal G. (1972). "How Scientific are the Social Sciences?" *Cahiers de l'ISEA, Serie H.S.*, 14 : .
- Parsons T. (1937). *The Social System*. Glencoe, III: The Free Press.
- Parsons T., Ed. (1961). *Theories of Society*. Glencoe: The Free Press of Glencoe, III.
- Parsons T. (1968). "Systems Analysis: Social Systems." *International Encyclopaedia of the Social Sciences*, 15.
- Seebass G. and Toumela A., Eds. (1985). *Social Action*. Dordrecht: Reidel.
- Tomlinson R. (1984). Rethinking the Process of Systems Analysis and Operational Research: From Practice to Precept and Back Again. R. Tomlinson and I. Kiss, *Rethinking the Process of Operational Research and Systems Analysis*. Oxford: Pergamon: 205-223.
- Tomlinson R. and Kiss I., Ed. (1984). *Rethinking the Process of Operational Research and Systems Analysis*. Oxford: Pergamon.
- US Advisory Committee on National Growth Policy Processes (1977). *Forging America's Future: Strategies for National Growth and Development*. Washington, DC: Government Printing Office.

- Webber M. Melvin, Ed. (1964). *Explorations into Urban Structure* . Philadelphia: University of Pennsylvania Press.
- Wheaton W. C. (1974). "A Comparative Static Analysis of Urban Spatial Structure." *Journal of Economic Theory*, (9): 223-237.
- Wilson A. (1968). "Models in Urban Planning: a Synoptic Review of Recent Literature." *Urban Studies*: 249-276.
- Wilson A. G. (1974). *Urban and Regional Models in Geography and Planning*. London: Wiley.

The Planning Process Model



From: F. Archibugi, *Principles of Regional Planning*, Angeli Milan, 1979

Fig. 2

The selection planning system model

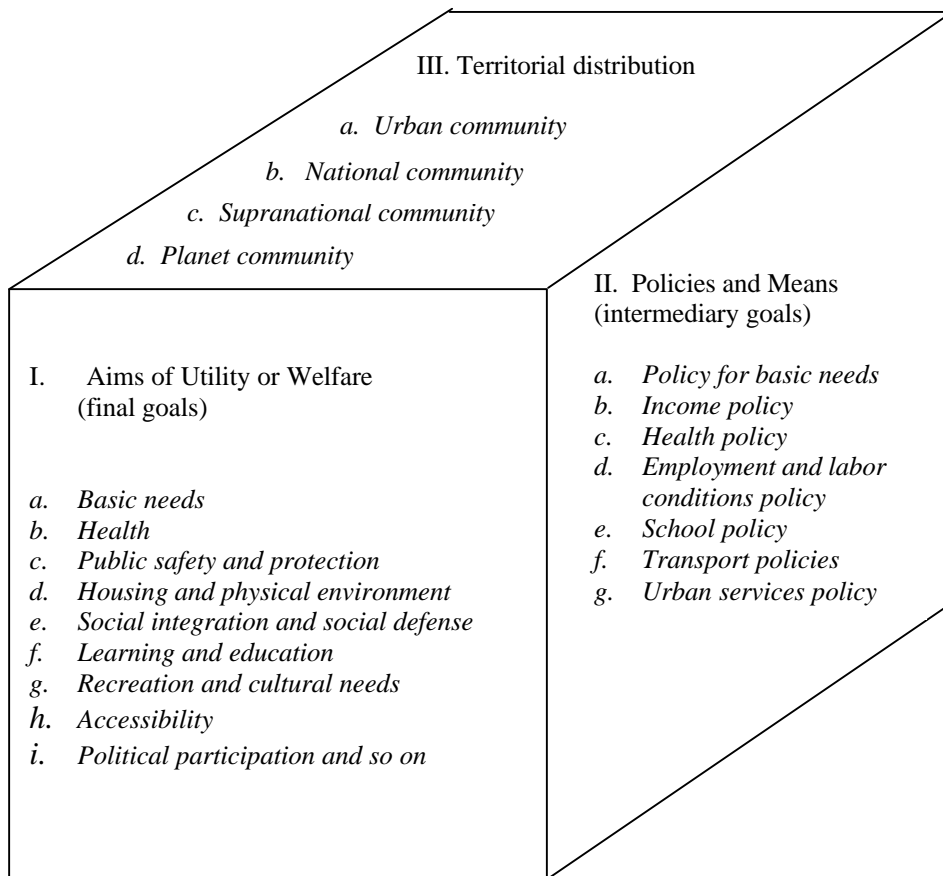


Fig. 3

The implementation planning system model

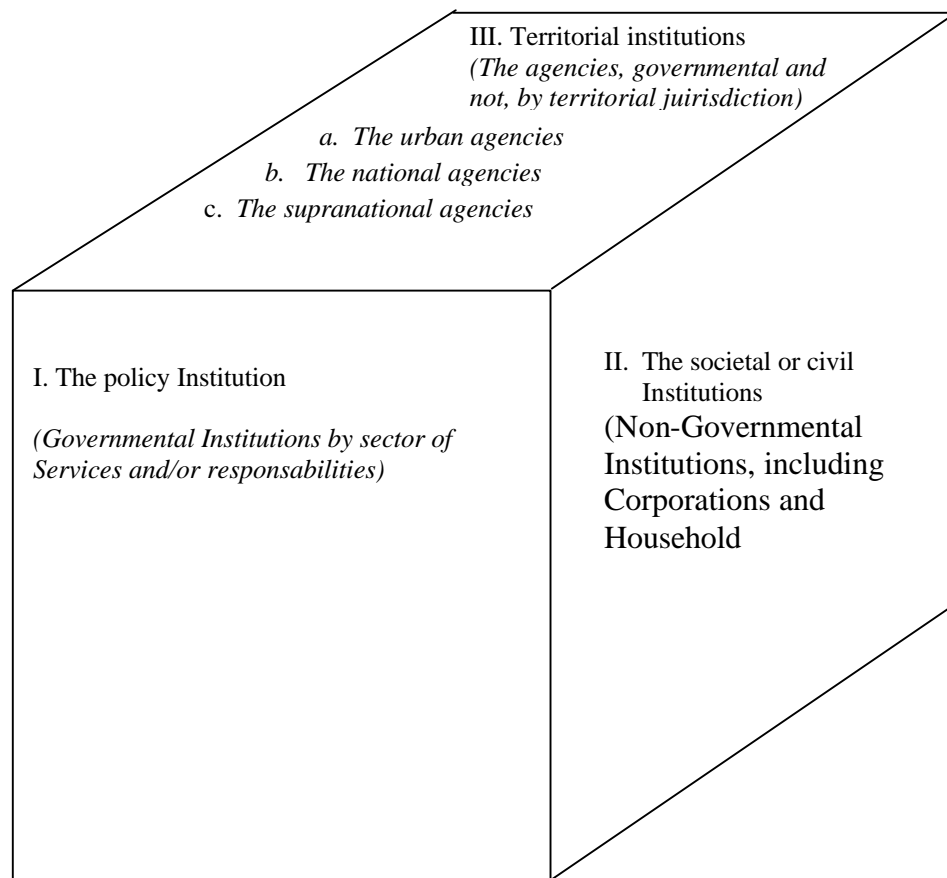


Fig. 4

**Control of the interactions
among selection planning system
and implementation planning system**

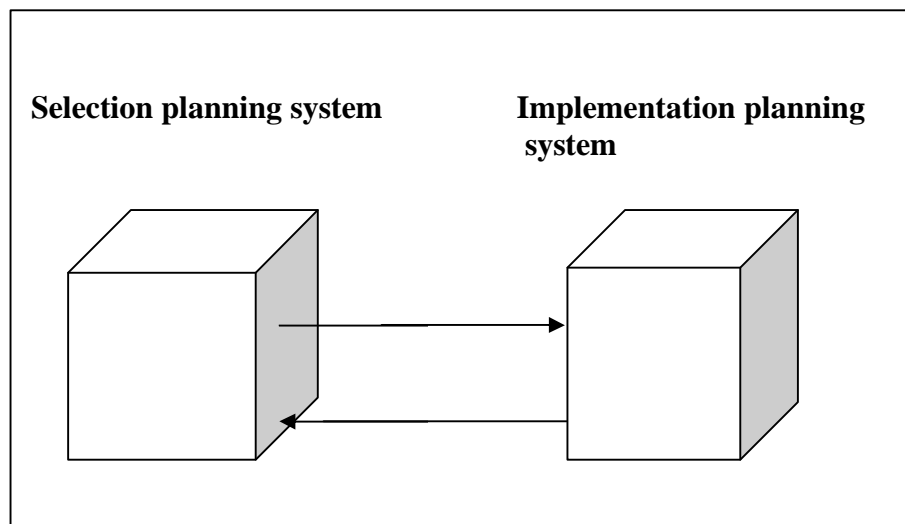


Fig. 5

Diacronic conflict among planning systems