

**Towards a New Strategy of Integration  
of Cities into their Regional Environments  
in the Countries of the European Union**

with Respect to  
France, Germany, Great Britain, and Italy

Coordinator: Prof. Franco Archibugi

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At the end of 1994, the European Commission (DGXII) launched a programme of research concerning the urban future of the countries of the European Union.

The general aims of this programme are "to better understand the behaviour of the city systems; to emphasise solutions using technology options and conceptually testing their impact on the city as a global interacting system; to valorize the diversity and exploit the local assets; and to add value to the actual local innovative initiatives by providing a common scheme for evaluation that can help the diffusion of successful approaches to other cities."<sup>1</sup>

In the framework of this programme, a special study was conceived on the integration of cities into their regional environments. This study has the goal of "indentifying instruments to promote the city and its regional basin as a local interactive network."<sup>2</sup>

In the tender organized by the European Commission for the performance of this study, the Planning Studies Centre of Rome has presented a research project which obtained the approval of the commission and that began in the first month of 1995. The research will be concluded at the end of 1996.

This document aims to outline the progress of the reasearch being carried out for this project in order to illustrate, with particular attention to the theme of the HABITAT conference: 1) the research approach, 2) the expected results at the end of the project.

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<sup>1</sup> From the background paper of the City Action Programme (Actville) of the European Commission.

<sup>2</sup> From the same background paper mentioned in the previous note.

## 1. The Research Approach

Answering to the requirements expressed by the commission by the terms of reference of the tender, the approach of the research has been articulated in the following aspects:

- a) an analysis of the main urban challenges that must be faced by individual countries and the European Union, at the present time and in the near future;
- b) a formulation of a scenario of objectives on which to base an urban action programme at each decisional level relevant for the future of the cities;
- c) a critical examination of the current actions and experience in light of the above said scenario;
- d) the outline of an operational framework to propose to urban operators for implementation at each decisional level of the above scenario

### *1.1 The Urban Challenges to be Faced*

In the research approach (see annex document no. 1), the current urban problems and challenges for cities and urban organisation in Europe (and also in other economically developed parts of the world) can be summed up (with all the imperfections of any summary) in the tendential *conflict* between two fundamental goals of urban settlement, which become two contrasting goals of urban policy:

- 1. Ensuring a high level of access to the functions or "superior" urban services that produce the *city-effect*, which no modern citizen is prepared to give up (or which would be a policy goal guaranteed for all citizens);

2. Guaranteeing that the concentration of urban services (necessary for the city-effect) does not produce such an overloading of functions as to make *liveability* unacceptable or unsustainable from the environmental and social point of view.

The two contrasting goals pervade the current "urban question" characterising:

- on the one hand, the *contemporary tendency for a "total" urbanisation* of the population;
- but also, on the other hand, the *current effort to clean up the urban environment*, which is compromised by pollution, traffic congestion, social separation and disintegration, the degradation of the urban landscape, etc.

Despite noteworthy differences in the urban history of European countries, and of the derived urban framework, the "urban question", as we have briefly indicated above, is emerging in a substantially *uniform* way both in Europe and (with some differences which we will discuss later) in the entire Western world<sup>3</sup>. This may provoke, or allow, a remarkable convergence of approaches in *urban policy on the European or American scale*, founded on the development of "*new urban concepts*"<sup>4</sup>. In the urban geography of nearly all European countries, a situation is arising which can approximately be summed up thus:

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<sup>3</sup> In the "third world" the differences of urban organization are very different to those of the "Western" world. And such differences would imply analyses substantially different from those applied to the western cities. The strategies as well could be very different. Such a comparison leaves aside nevertheless the objectives of the present analysis which only concerns the European situation and that of the West.

<sup>4</sup> To use the terminology of the terms of reference of the European Union Commission Act-Vill Programme, mentioned in note 2.

1. on the one hand, we have important *cities which have reached the highest levels of the city-effect* (the great capitals, metropoli) but which, exactly because of this, are the object. of a growing overloading of functions, with respect to their territory; this overloading is degrading any urban quality and factor of liveability. We can call these **LC type** urban situations;
2. on the other hand, we have *small and medium-sized cities* which, despite once being important cities, and having recently recovered functions and population increases (because the overloading crisis of the great cities has placed them in an advantageous position) *have not yet reached sufficient city-effect levels*. We will call these **SMC type** urban situations.

The two situations must be analysed separately, because they present a somewhat different phenomenology, from many points of view. But they must also be analysed in their mutual relationship because they are largely interdependent in any concrete national reality.

The **LC type** cities already enjoy the city effect; they may have too much of it, in the sense that often the necessary "critical mass" is overabundant in relation to the territorial resources available and the degree of concentration inherited from the past. In fact, because in the past this agglomeration took place by spontaneous gravitational force, an overloading has normally been seen of the "historic" centre, and a sprawl-like expansion, with the creation of "peripheries" which, albeit autonomous, always depend, for the city-effect, on the congested city-effect. The result of all this is the loss of human sociality ("*agora*"), of a sense of belonging and identity ("*glocality*"), and environmental liveability ("*sustainability*").

The **SMC type** cities, whilst suffering sometimes in some central points from traffic congestion, or pollution, or urban landscape degradation, have in comparison to type A cities a liveability or an urban quality which is decidedly higher. In recent times, the shortening of distances (due to the lowering of transport technical times) and the telematic technologies have strongly in-

creased the chances of these cities as places of settlement, both for residential and production purposes. In recent times, they have drained the exodus from the country - where it still persists - to a greater extent than the LC type cities; this has given the impression of a larger expansion of the same and of a sort of "de-urbanisation", as has often been said. All this is rather the product of the statistical error in not considering the increase of residents of the municipalities of the first, second and third band around the central band of LC type cities (hit by the spill-over phenomenon), as belonging, in the comparison, to that of the sprawl-like expansion of these cities. Therefore, the cities of SMC type, certainly enjoy greater "agora", "glocality" and "sustainability": but have unfortunately also the defect of not reaching the critical mass for producing the city-effect. This simple effect makes them vulnerable in comparison to the general increase in urban quality. They will continue to lose more sophisticated strata of residents (the "brains" or class leaders) with a damaging effect on the quality of the "agora" itself. A good part of the pre-existing fixed social capital (health, education and cultural structures), will be underused, discredited and abandoned by sufficient maintenance: with the effect of not indifferent environmental degradation. The residents, despite the environmental liveability will become more and more frustrated by a sense of marginalisation, in as much - we must not forget - at the levels of the city-effect of the past, many of these cities of SMC type, enjoyed a good and satisfactory position.

All this is translated into a great waste of territorial and urban resources, and in a persistent flow of functions towards the LC type cities, with a further aggravation of their overloading crisis, which will worsen even more the environmental crisis in the sense mentioned above.

## 1.2 *The Scenario of Objectives*

Consequently, to the above research approach, the emerging scenario of objectives starts from two basic goals of urban policy: the city effect and city liveability.

Thus, *city-effect* and *liveability* - whilst both representing two unrenouncable goals for any modern urban policy, which is common to the conditions of any urban situation - have been presented in such a way as to lead to two different town-planning strategies in the two city typologies, even if they are nevertheless very complementary and interdependent strategies.

In the type LC cities, which are rich in city-effect, but lacking in liveability, the problem is posed of *finding the ways and means to resolve the problems of liveability* ("agora", "glocality", "sustainability"), *without compromising the existence of the city-effect*.

In the type SMC cities, with good liveability standards, but which are lacking in the city-effect, *the problem is posed of finding the ways and means to realise the city-effect, without compromising liveability*.

### 1.2.1 The Interdependency between the Two Policies

The two policies - which are somewhat different, and which will probably suggest very different operational solutions, and merit anyway being studied in a very different way - have something in common (besides the two general goals mentioned): they have in common the fact that they are strongly *interdependent*. The success of one, in fact, will inevitably depend on the success of the other.

It is unlikely that a policy aimed at resolving problems of liveability in the type A cities, will be successful, if the settlement flow continues in these cities, well over the critical mass levels which have conferred on these cities the level of centrality that



they enjoy. It would be like greyhounds chasing after a mechanical hare. The liveability desired would never be reached, and the environmental, social and technological policies (enacted in order to lighten or better distribute the overloading these great cities) would not have the capacity to be last over time; and therefore they would represent an irrational and disordered waste of resources. Their level of effectiveness with regard to the goals would be very low.

This flow of settlements would be destined inevitably to continue if in the cities and territories in which these flows originate the city-effect is not produced which is able to hold on to the citizens who now desire more and more to enjoy modern urban life to the full, without restrictions (as happened in the past). Therefore the success of overloading "reequilibrium", or "depolarisation" policies, to be implemented in the type A cities in order to improve liveability, *depend* strictly on the success of policies to improve the city-effect in type B cities.

Vice-versa, it is unlikely that an increase of urban functions could be realised in type B cities (wherever and on condition that the indispensable critical mass to obtain an city effect), if we continue to invest means and resources in the strengthening of type A, spontaneously growing, and if we continue to invest in the accessibility of these cities on the part of ever more distant territories, as an apparent answer to a spontaneous demand, which today is justified only because real alternatives are lacking. The success of an attempt to increase polyvalent urban functions in these type B cities, and a sort of alternative "polarisation" to that of the great cities (of which we will outline the requirements in the following paragraphs), depend only on the success of a policy of depolarisation in the type A cities.

In this sense, the two policies - although different in their contents - are strongly complementary and synergetic.

Notwithstanding this, it is very important that the diversity between the two policies - whilst supported by the same principles

or criteria - is substantial. It gives rise to very different subordinate strategies.

### 1.2.2 The Typical Strategy for the Great Cities (LC Type)

In the appropriate policies for lc type cities, the strategy must respond to the question *"how to decongest, loosen up, lighten, the hypertension towards the single, historic, city centrality in question?"*; or, in other terms, *"how to decentralise the functions?"* In fact it seems that without this decentralisation of loads, which go above the acceptable loads for liveability, any environmentalist policy is destined to be precarious, based on chance and unsuccessful.

In the history of any lc type city, is found some attempt to decentralise functions; but these attempts have rarely been successful: in the direction of suitably alleviating the (more or less historic) centre, the "down-town" area, of its hyper-functions, and thus of its environmental degradation, and at the same time creating peripheral alternatives capable of being self-sufficient with regard to the centre.

### 1.2.3 The Typical Strategy for Medium and Small-sized cities (Smc Type)

With a suitable policy for smc type cities, the strategy must answer the question: *"how to increase the urban functions of the city to the point of reaching such an effect as to adequately withstand a comparison and competition with the quality of the services provided by lc type cities?"*. In other words, *"how to create a centrality which is sufficiently important and competitive?"*

In this case as well attempts are not lacking. Rather a tendency is common to almost all smc type cities to take on - in one way or another - new functions which enhance services and image.

Each centre tends towards "parochialism". And each "parochialism" reaches some goals. But much more often it achieves such a dispersion of resources, that it nullifies the apparent advantages, without reaching any strategic result. In the worst cases, the local initiatives, unless they are supported by an economic rationale, tend to fail after making initial progress. In this case as well the waste of resources is great and the effectiveness of the policies is very low.

#### 1.2.4 The Need to Provide the Two Policies with Greater Cognitive Instruments

The knowledge of constraints, in each of the two policies, is often lacking, i.e. of the conditions, which have to be respected for the feasibility of a strategy such as that indicated. These constraints have been considered the object of study, in the research approach in question.

In the traditional experience of town master plans in European cities, more plans have been faced without any knowledge or definition of these constraints (and, moreover, without them even being taken into serious consideration), than those which have taken them into serious consideration.

The research started from the conviction that the research aimed at the action must above all be orientated towards providing the planning operators involved *cognitive instruments* in order to work, respecting the constraints mentioned above. Any action aiming at resetting the city balance concerning the *overloads* on the one hand, and an *absence of centrality* on the other, must be able to start from an assumption of parameters (of accessibility, loads, performance, cost etc.), which the research must supply.

The studies carried out up until now, although imperfect and insufficient, tend to show that now the *urban centrality* which counts, *does not differ much from city to city*, whatever their his-

toric origin (administrative, industrial, or port etc.). Thus it is very probable that the proposal will give, as a result, rather similar answers, notwithstanding the differences between the cities empirically examined.

### 1.2.5 The Necessary Cognitive Instruments Postulated

In particular, these cognitive instruments may, it seems, be treated and developed (for the purpose of obtaining the first technical-scientific answers) in the framework of a traditional approach to urban and regional planning: as *instruments to promote the city and its regional basin as local interactive networks*.

For this reason, we will develop considerations on the specification of the arguments presented in the introduction, in the form of questions - and consequent potential answers - which the research desired should propose, in any implementation of the approach suggested.

It has been said that the strategy applied to the lc type cities should answer the following question: "*How do we decentralise the great cities?*".

And the first answer expected to such a question (we have also already said) is: "*to make sure that decentralisation takes place by 'units of decentralisation' which represent alternative centralities to the current overloaded centre, and which are sufficiently strong and important to compete with the centre to be counterbalanced*". Otherwise the action is destined to fail from the outset.

Likewise, the strategy applied to smc type cities will have to answer the following question: "*how do we produce the city-effect in the small and medium-sized cities?*".

The first answer expected for this question is: "*to make sure that such centres reach in some way (linking up between themselves, becoming agglomerated, interacting with appropriate networks and systems, above all of privileged intercommunica-*

tion, etc), a "critical" mass which is sufficient for them to compete with the force of attraction of the great cities". Otherwise any effort to increase the coefficient of city-effect within such centres, will inevitably be not enough for the aim pursued, and consequently ineffective and unsuccessful.

In both cases, nevertheless, the work must be based on a concept of sufficient "centrality", and of a sufficient catchment "critical mass" or threshold, in order to produce the indispensable city-effect: this concept is hardly known however. Neither are the effects which various technologies may have on it, or on its single components, such as telematic and information technology which are expanding at such a great rate.

Thus the first aim of the study is to examine such a concept of centrality in depth, that can be a support for urban planning choices, and finally can be influenced by a range of already available technologies, or which are to be promoted.

The qualitative and quantitative definition of centrality, is therefore a preliminary goal of research (formulated in the aforementioned way) which is indispensable for the support of both strategies and policies to be pursued in the *great cities* and *small-medium* ones.

Thus the development of town-planning research should firstly be devoted to examining what are *the constraints and conditions necessary so that strategies and planning interventions* (in each situation given) *have a possibility of success for the following: realising an adequate centrality and acquiring an adequate catchment area critical mass.*

Since both the strategies and policies of "decentralisation" (for the lc type great cities) and for those of "centralisation" (for the medium-small smc type cities) would be founded on the notion of "optimal centrality", or rather of feasible and sustainable centralities, in the first phase of the research the following fundamental study has been carried out: *to study and define, with appropriate "qualitative" and "quantitative" indicators, what the essential components are which ensure and produce such an "optimal*

*centrality" and what critical mass can constitute its efficient justification.*

More specifically, the study wishes to explore:

- *if and how* some of these urban indicators (and in particular those selected as indicators of "urban effect" and "overloading indicators") have been taken into consideration by the various planning instruments used in each country in recent years. By planning instruments we mean plan documents such as Master Plans, Development Plans, "Schema directeurs" etc. ;
- *if and how* this taking into consideration has taken place: on the basis of explicit general directives coming from the national administration or spontaneously from the regions in their planning documents and terms of reference, or by the individual designers in the execution of the work;
- *if and how* the population interested in some way have participated in the definition - if adopted - of such indicators.

The selection of the indicators to be proposed as a result both of the investigations (into the literature and planning experience), and of the autonomous reflection of the various study groups, will be developed along the following lines and fields:

- a) *the demographic component*, i.e. the demographic area of potential users of the centrality in question;
- b) *frequency of use of superior urban services*, which normally is a function of income, and of the availability (per capita) of opportunities and resources.
- c) *the accessibility to superior urban services*, expressed in terms of access times and costs;
- d) *sufficient public spaces*;
- e) *a mix of fundamental spatial functions*;
- f) *urban structure and morphology*, capable of guaranteeing efficient functioning;
- g) *the communications network* which is essential in order to ensure the efficiency of the centrality in question, having explored -

service by service - the appropriate nature and technology for its accessibility.

This means that for each of these lines or fields important indicators will have to be obtained both of the city effect and of "overloading".

### ***1.3 A Critical Examination of Current Actions and Experiences***

Since any *conceptual* study of the *components of centrality*, however irreplaceable in a study which aims at action, and not only at the mere recording of past phenomena, cannot but arise from *theoretical* reflection, nevertheless this too deserves to be supported with empirical observation. The research therefore also has begun *to study and illustrate what are the essential functional components which have produced today - or which are currently clearly producing - centrality, in a vast range of European urban cases and situations.*

It was decided to explore 5 cities for each of the 4 countries involved in the research (so, 20 cities in total are being studied).

In order to clarify better what this second operation consists of, it was agreed - after a common analysis of the different problems connected with the execution of the investigation - that the choice of cities made in each country needed to respond to the following requirements:

- 2 cities have been chosen from the larger cities. Of these one is in a developed environment, and the other in a less developed environment.
- 2 cities have been chosen from the small and medium-sized cities, again one in a developed environment, and the other in a less developed environment.
- the fifth city has been chosen from those with a strong individual character (either as the capital city, port, or industrial town).

In these cities the study has "checked" how the selected indicators defined (in common) in operation 1) are applied..

This verification has been made from two points of view:

- how are these cities placed in relation to the acceptability or inacceptability thresholds fixed for the various indicators selected in operation 1). This verification is helping to better define the list of indicators chosen in a theoretical and normative way.
- how do the aspirations appear of the people who live in these cities (the people, politicians, designers) in relation to the indicators selected and their pre-chosen thresholds. Likewise this verification is helping to better define the list of indicators chosen in a theoretical and normative way.

In brief operations 1) and 2) are being linked by a dialectic spirit which can be expressed simply in the following way:

- on the one hand, the expression of value judgements are not being taken too seriously, which may be expressed in a purely theoretical manner, by designers and experts in the various professional disciplines (sanitation, education, entertainment, transport, business, etc.), because they may not be consistent with the real aspirations of the people, who - in freedom -. may.. determine behaviour which does not correspond to the "optimality" derived rationally;
- on the other hand, the reality of things and situations, including the subjective ones, are not being taken too seriously either; for example, the fact that with regard to the city effect or the concept of overloading, the line of reaction and/or behaviour of people, of users as well as operators, both economic and political, is placed far from the point considered optimal by the experts; this is because the behaviour and reactions of people are subject to rapid change, and sometimes to complete overturns, which are intenser than those of the experts, and statistical survey (like that of opinions) has pitfalls in meaning which cannot always be controlled and avoided.



Data which is objective, rather than subjective (resulting from the investigations), is not being taken too seriously. In fact, it goes without saying that each situation (for each country, or each city) constitutes a "case unto itself". And in any investigation, if we wish to extrapolate a meaning, which goes beyond the mere description of each situation, we must discover analogies rather than differences. For each case, there exist good reasons why this "difference" has been produced or is being produced. But it is useless, for the purpose of the investigation, to theorize about facts which have made a case unique.

The purpose of the research overall is to fix guide lines which assist future management and planning (starting from the exemplifying one of ongoing work in the study), suggesting "the standard case" of equilibrium, of "optimal centrality", of "theoretical urban system". For this purpose the research has a meaning, otherwise in order to record the reality of things there would be no need for research but only for descriptive compilation.

In the study therefore, a line that has been adopted for:

- the theoretical establishment of optimal centrality,
- tempered by a set of considerations which may arise from "empirical" evaluations of the data gathered from the urban investigations (carried out however on the basis of homogeneous criteria elaborated in common).

#### ***1.4 The Outline of the Operational Framework***

Having gathered and defined the sufficient information and knowledge for operations 1) and 2), the research has proceeded to *a joint and parallel examination of the urban framework situations in some European countries, in order to research concretely what "solutions" could be proposed for a reorganisation*

*of this framework, in a coherent way with the results of the research operations 1) and 2).*

In this direction, the PSC research intends to explore if the instruments and guide lines suggested by the *Italian Environment Plan*, could be valid on a European scale.

However, in the analysis of the modalities of execution of Operation 3) we have arrived at some conclusions which deserve to be mentioned as a sort of point of arrival of our reflections.

As we have said above, the study has been concerned with "a joint and parallel examination of the urban framework situations in each country." With this aim, the study concern "a first attempt to distribute in each national territory a reorganization of the centralities which bears in mind the two following goals:

- a. elimination of the possible overloads of the centralities acquired by the great cities;
- b. modes of acquisition of centrality for the medium to small-sized cities.

The third operation "specifically includes a proposal for the *strategy of urban transport* to be adopted in *each* of the urban systems 'designed'".

It would be best if any research aimed at this approach concluded with a third operation 3) with which - on the basis of results of two first operations, will be carried out - for sake of example - a first attempt to distribute - in the European territory a reorganisation of the centralities which bears in mind the two goals given in Para. 1:

1. *elimination of the possible overloads of the centralities acquired by the great cities;*
2. *modes of acquisition of centrality for the medium to small-sized cities.*

Given the assumption of information relative to the optimal distribution of centralities in European countries which will be the object of operation 3), in this first attempt at designing and distributing new centralities in the countries examined, the study will specifically include *initial proposals for the strategy of ur-*

*ban transport to be adopted in each of the urban systems "designed"<sup>5</sup>.*

A scenario has been thus configured of a future organization of the urban framework of a country, region or supra-national territory, etc. which could give rise to political evaluation and decision-making procedures; but it would start from some technical assumptions of parameters and indicators inspired by a largely common evaluation.

Once this has been acquired by the political decision-makers, the said scenario could carry out a set of functions which are commonly assigned to these scenarios: a) freely guide the actions of the designers on various scales, sectorial and territorial, in which they happen to work; b) orientate the decisions of a number of bodies which operate in the territory, for the purpose of conforming to situations which are tendentially convergent and, therefore, synergetic; c) constitute the appropriate territorial reference for further operations of research and evaluation.

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<sup>5</sup> The attempt at "design" suggested and recommended here, can only start from a methodological intention to provide a scheme of the final purpose of set of research indicated. This - whatever the level of examination reached both the research operation in a) and by the verification in b) - must inevitably represent an "initial" very approximate attempt, which should be subsequently perfected and completed. The attempt suggested, as said, illustrates a method

## 2. The Expected Results at the End of the Project

### 2.1 *The Expected Results in Terms of Programme Indicators*

From operations 1) and 2) of the project, we will be able to dispose of a selection of indicators either in the city effect or city overloading to be used to define the optimal centrality and its constituent parameters.

As said before, operation 1) will give us an analysis by sector or by components of such centrality that could be oriented towards the scenario of reorganization of the urban systems in each country corresponding to the scenario of the objectives. Let us describe a little more, the contents of different components of such a centrality as has been listed before.

#### 2.1.1 The Demographic Component

Much has been written and said on the production of urban services which produce the city-effect, but we are still far from having formulated *threshold evaluations* which are adequate to support a homogeneous strategy, such as that at which the studies are aimed. The research proposed would therefore have to arrive - by means of a screening of the most important literature on the subject - at a statement relative to the *minimum threshold* catchment area to achieve the city-effect.

#### 2.1.2 Frequency of Use of Superior Urban Services

A variable which is quite influential on the said frequency of use is the *lifestyle* of the interested populations, even if the growing homologation of lifestyles in advanced European societies, is noticeably reducing any such differential. The research proposes

to develop these aspects and arrive at some conclusive judgments concerning the effect of such factors on the average behaviour of the consumer or user of urban services.

### 2.1.3 The Accessibility to Superior Urban Services

Here the parameter within which the acceptable thresholds of access to such services can be measured is that of "dailyness", i.e. a parameter linked to the acquisition of such services within the time span of a day and the return to one's home at night. This is the parameter which may concern the *city-effect*, and the actual concept (however wide) of the "city". Other territorial "accessibilities" which involve travelling and transport in the life of individuals, do not concern "urban" accessibility, but rather the accessibility to other forms of spatiality use (holidays, business, professions, politics, etc.). They have an "inter-city" dimension, rather than an "infra-city" one, and cannot be considered as indicators of urban functionality. Naturally accessibility linked to dailyness does not imply that the access to the single service must be daily: it is enough if - when desired - it has the potential to be acquired by the user in the daily time span. Some services, whose frequency of use is very rare for any user, can be judged as not constituting the city-effect, and are therefore excluded from the list of services whose presence produces the city-effect (whatever their frequency of use by the citizens). (For example: is the presence of an ordinary season of symphonic concerts or that of an adequate number of philately shops, or art galleries to be considered essential to produce the city-effect?)

In conclusion, the accessibility (or presence) of superior urban services is an essential component (to be specified) to characterise centrality, of which the research intends to map the features. For brevity's sake, these have been defined as superior, in order to distinguish them from other services which - however important and essential (perhaps more essential than the superior ones)

- are not necessary indispensable for the city-effect (e.g. secondary schools, hospitals, cinemas, sports facilities, etc.). The aim of the research is to examine the definition of "superior" in depth, and to discuss, with a wealth of argument, the importance of the services which make up centrality and define it. In particular we will discuss for each of these, what its predictable future will be on impact with the new technologies, in particular telematics and information technology: will this impact result in the substitution of daily spatial accessibility, or in simple "integration"? Or will there be no impact? This discussion will take place, case by case, but always with an eye on the problem of "centrality" (which produces the city-effect), and its new face, with its consequences on the parameters sought, which are to be provided for town planning.

#### 2.1.4 Sufficient Public Spaces

Since such spaces (open, closed, monumental or otherwise, formal and informal) constitute nevertheless an ingredient which characterises centrality, as a factor of potential convergence with social and public life, in this case as well the research intends to define its characteristics and necessary dimensions better.

As has been said, such an enquiry is strictly linked to that of superior services, many of which are also public or imply the occupation of public space.

#### 2.1.5 A Mix of Fundamental Spatial Functions

The research intends to pay particular attention to this intuitive requirement, which is often used in order to contest a particular traditional approach to the "zoning" of activities (which in past town-planning experience was perhaps applied in a too schematic and dogmatic way, but which is unlikely to be avoided in the fu-

ture, even if production technologies have clearly modified the terms of the question). Not in order to suggest architectonic solutions which achieve the "mix" of spatial uses on a building scale (which would seem to be the role of Study No. 1, judging from the terms of reference), as much as to qualify (and quantify) the requirements of centrality, in the spirit of the method and reasoning followed up to this point. Such requirements in essence concern :

- the physical possibility of locating any typology of production installation, without which the feasibility of centrality and its functions is substantially compromised;
- the physical possibility of absorbing, recycling and "metabolising" pollutants and waste within the space and catchment area of the centrality itself (apart from specific cases in which appropriate technologies allow for the management of such pollution on a meta-urban territorial scale);
- the physical possibility of satisfying, with adequate quantities of "free" nature and greenery, the "urban" needs for outdoor recreation of the users of the said centrality.

### 2.1.6 Urban Structure and Morphology

By structure we mean here, for example, the presence and definition of a "load-bearing axis", of an "intensive area", of a "free area" (which can be assigned specific coefficients of differentiated density), of lines of development in conformity with its morphological articulation (for example: "linear", "stellar", "reticular", etc.) on which the future territorial organisation can be conditioned coherently. The study proposed will express standard values for all these elements from theoretical judgements or from studies of satisfactory situations.

### 2.1.7 The Communications Network

Among the communications "networks" discussed, is placed first the traditional one of *urban transport*, in its multiple forms (public and private, individual and collective, goods and persons). The study will examine what technological opportunities are offered to each of the components, examined above, of centrality - having a role in producing the city-effect - from the point of view of future technology. But it will be dedicated above all to exploring the technological instrumentation of transport and communication available for the needs of the city (or city-effect), identified in social integration ("agora"), in local identity ("globality"), in environmental compatibility ("sustainability"), which are the postulates of the study itself.

It can be gathered, from the list of components of urban centrality which the study wishes to examine and define, that such centrality is based anyway on a "*basin of sustainable use*" which is self-sufficient, and not a mere collection of urban architectural monuments. The whole study would thus be oriented towards the vision of a territory (region, or otherwise) which acts as a *basin* or *system* for a set of inter-human or inter-social relations, which are explicated in that "dailyness" which produces the city-effect.

In short the study intends to "qualify", and also "quantify" with suitable *indicators* (of load, state, meaning, result, achievement, etc.) all the components of the city-effect, as they are developed in the said basin, by area or by region; and which on their part have been chosen as having an effect on the city-effect and on the function of centrality which allows it.

## ***2.2 The Expected Results in Terms of Articulation of Optimal Centralities***



We will clarify further the above-mentioned terms; indicating what is meant and expected by "*examination of the urban framework situations*"; by "*distribute in the territory a reorganization of the centralities*", by "*reorganization of the framework*", and finally by "*proposals for the strategy of urban transport to be adopted in each of the urban systems 'designed'*".

### 2.2.1 Examination of the urban framework situations

What we are referring to seems clear. In each country there is a current urban framework situation distributed in the territory on the basis of a system of cities, from the largest to the smallest, which are interrelated in some sort of order (usually hierarchical) according to certain functional relations. The Operation 3 study must begin to fully comprehend what is the current situation and possibly represent it graphically: distributing in the territory the large, medium and small cities in a general network in which each "centrality" is placed in a scale of importance, size and function.

Operations 1 and 2 have however led to the establishment of an "optimal centrality" (see annex document no. 1). As postulated, this optimal centrality has (in the various indicators which define it) maximum and minimum thresholds. This should lead the study to identify in the current urban structure some centrality situations which exceed the maximum acceptable thresholds, and some which fall short of the acceptable minimum thresholds.

The following step is devoted to such an identification: the reorganization of the centralities, or the reorganization of the current framework, as currently identified.

### 2.2.2 Distribute in the territory a reorganization of the centralities

This means that - as a consequence of what has been said and done above - the following indicate graphically as well:

- a) the current centralities which are over-sized and over-loaded (beyond the acceptable maximum thresholds): the metropolitan cities; which constitute "urban systems" to be "depolarized";
- b) the centralities which on the contrary are under-qualified as urban effect and must be "polarized" by means of the creation of a network with other similar close centralities which makes them - together - stronger and more able to resist or overturn the polarization which the current framework has brought about;
- c) the centralities, finally, which are placed between the allowable thresholds which can only improve their internal performance but do not depend on what happens externally (they may be called systems to be "rationalized").

These "urban systems" of various type and form, are being indicated in the study *"tentatively"*, but indicated, and assume the form of "areas" or "basins" *defined in some way*, to which will be attributed - in a co-extensive way - all the territories and the whole population settled.

The "framework" to be "reorganized" consists thus of a new "framework" or (given its non-existent and "designed" nature) a "scenario" to be used only as a result of the *less costly* distribution of "centralities" in the sense settled and discovered by operation 1 and 2 in the actual and real urban framework.

This scenario includes not only the delimitation of the "new" "designed" urban systems of the entire framework, but also some data about the same, such as population, territorial size (km<sup>4</sup>), and a *"proposal for the strategy of urban transport to be adopted in each of the urban systems 'designed'"*.

### 2.2.3 Strategy of urban transport to be adopted in each of the urban systems designed

One of the most important components for the "design" of the new "urban systems" which emerges from operations 1 and 2 is definitely (together with the population/usership critical mass) that of accessibility within acceptable daily times to all the services of the system.

Thus the identification of the "solutions" of "framework reorganization" leads to the possibility of creating the said networks between small and medium cities which lack sufficient centrality and urban effect, and translates them into urban systems which have sufficient centrality (such as to resist - where possible - the attraction and gravitation of the over-crowded centralities of the current framework). And the most efficient instrument is the design of a system of transport within each system ("infra-systemic" transport) to increase accessibility to acceptable levels.

By "strategy" is meant which main strategic factor we should concentrate on in order to obtain (albeit in time), in the best and most efficient way, the goal of sufficient infra-systemic accessibility, given the new demand levels which can be anticipated for the new "network" or system.

With this study we intend to facilitate the understanding that there is a method of constructing an "urban" framework of reference which may minimize public and private costs, and maximize benefits, in as much as it expresses the fundamental needs of optimal centrality: that centrality which satisfies, at the same time, both the indispensable and not insignificant needs of "city effect", and the needs to avoid the overloads which such an effect normally involves if things develop too spontaneously.

### 3. Conclusion

The overall goal of the project is to describe a particular approach to the study of urban policy (and in particular to that of policies aimed at the improvement of the urban environment, and at greater equilibrium in urban development with the use of the urban resources available). This approach is distinguished by the attention given to the constraints considered unavoidable for the "urban effect", understood in the modern sense. The general basic thesis of the approach is that any effort aimed at improving the urban environment which does not bear in mind these constraints is useless, and destined to fail.

The project, while upholding the aforementioned thesis, also wishes to give the general outlines of an "agenda" of research aimed at studying and quantifying, with the appropriate indicators, the constraints which are considered relative to the city effect; in brief, an agenda of research aimed at elaborating indicators of the urban effect.

While a vast literature has been produced relating to policies in favour of the sustainable city, with undefined confines, with regard to urban effect indicators we know very little, and research is practically at the starting point. Policies and urban plans manifest a clear ignorance of these indicators, and thus of the constraints which they represent for their efficiency.

At the same time, the greater knowledge of environmental impact, better known, has not resulted in the elaboration of indicators or urban loading sufficiently coordinated with those of the urban effect; thus with regard to "overloading" indicators (connected to the presence of indicators of urban effect) we know very little. The overloading indicators, or the (complementary) ones related to optimal loading, are an essential ingredient as well for the evaluation and quantification of the concept of optimal centrality. Until we carry out appropriate research in this field, we will not have the necessary instruments available to

evaluate optimal centrality, which represents in turn the indispensable guide lines to make the policies for the improvement of the urban environment efficient (the ecological city, sustainable city, etc.).

## **Annex 1**

Composition of the various national working groups for the project on Integration of Cities into their Regional Environments  
(situation as of February 1996)

The project leader for the Study is Prof. Franco Archibugi, University of Naples, President of the Planning Studies Centre.

The national French team is made up of:

- Alphaville, Bureau d'etudes, in the person of: Mr Thierry Vilmin
- Prof. Christine Moissinac, Institut des Sciences de la Ville, Université de Marne-la-Vallee, Paris

The national German team is made up of:

- Prof. Udo Simonis, Research Professorship Environmental Policy, WZB (Wissenschaftszentrum fuer Sozialforschung Berlin)
- Dr. Ekhart Hahn, Director, Oeko-Stadt, Gesellschaft fuer Oekologischen Stadtebau und Stadtforschung, Berlin
- Bundesforschungsanstalt fuer Landeskunde und Raumordnung, Bonn, in the persons of: Dr. Eleonore Irmen, Dr. Karl Peter Schoen, Ms. Margit Moelder and Mr. Helge Delion.

The national British team is made up of:

- Dalia and Nathaniel Lichfield Associates, in the persons of Prof. Nathaniel Lichfield, University College London, Mr Martin Friend, Project Manager, Mr Martin Davies, Associate
- Prof. Peter Hall, Reviewer, University College London (as consultant)
- Prof. Michael Collins, University College London, (as reviewer)

- Prof. James Simmies, " " " "
- Prof. Philip Cooke, Director, Centre for Advanced Studies in the Social Sciences, University of Cardiff

The national Italian team is made up of:

- Planning Studies Centre, in the persons of Dr. Annalisa Cicercchia, Arch. Bruno Rossi Crespi, Prof. Attilio Belli of the University of Naples
- Prof. Roberto Camagni, Department of Economics and Production, Polytechnic of Milan.
- Dr. Roberta Capello, " " "