The Future of Paris: A Systems Study in Strategic Urban Planning

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The future of Paris: a systems study in strategic urban planning

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The paper is based on a study conducted by the author (under contract to the French Government) concerning the possible rôles and functions of Paris during the next thirty years. New findings regarding the interactions which emerge between the definition of complex, ill-structured problems — the '*problématique*' – and planning methodology are reported on, and a generalizable planning approach that synthesizes the most recent thinking in the field, both at the theoretical and the methodological levels, will be discussed.

The introductory section covers the background of the Paris Project, and elaborates the notion of '*problématique*'. The second section outlines the deductive-heuristic approaches that systems theory seems to require when applied to problems which have overlapping boundaries. This is followed by a discussion of the relatively new concepts of 'normative' planning and 'idealized' design that underlie any strategic consider-ations when the decision-context is a situation of great complexity. The concluding portions deal with relations between the ideas of purpose and function, and the implications of such relations for national policy.

Introduction

Early in 1971 the French Government asked me to undertake a study on the future of Paris – a future expected to unfold amid the dramatic changes forecast for the last three decades of the twentieth centry. In this paper I hope to describe as succinctly as I am able how my colleagues from the University of Pennsylvania and I conducted the work which lasted until the middle of 1974.†

It is impossible to relate all, or even most, of the intricate detailing that had to be wrought from the situation in order to come up with the analyses, conclusions and recommendations that the sponsors expected. I shall therefore limit myself to describing those aspects of the work that I believe to be conceptually the most interesting, and from which some of what I am forced to leave out may be inferred.

I should note at the outset that what was done in no way resembles the typical urban or typical strategic planning study. It turned out to be something else, something whose nature is most closely suggested by the relatively new expression 'systems thinking'. It is this difference that I shall try to emphasize, especially in terms of the study's methodological underpinnings, for it is in the methodology which was developed as part of the research that I find the synthe-sizing principle which might enable me to deal with the subject without getting mired in details. But first, let me outline the background of the project and its working organization.

† The main study team, that came to be known as the 'Wharton Group', included Professors R. L. Ackoff, H. V. Perlmutter, E. L. Trist, and M. Chevalier (the last from the University of York and Montreal) with myself acting as principal investigator. A number of students also contributed greatly to the project.

Background

Desire for change, feelings that something needs to be done, and decisions taken often arise from rather vague perceptions and assessments of a situation. This state of initial awareness which does not yet involve any real understanding is what I call 'the disquiet'.

It was, I believe, the upheavals of 1968 that induced a number of Frenchmen (many in positions of authority) to realize that despite a remarkable recovery from the wounds of World War II, profound dissonances continued to exist within their country. This feeling soon grew into a diffuse but massive disquiet which led the French government to attempt to investigate the main forces that were shaping their polity's development.

In the main, these studies tended to indicate that Paris as a city, as an urbanizing region, and as the locus of important events operated as a powerful force in French life. Whatever happened in Paris seemed to radiate and resonate throughout France; in one way or another it affected the entire country.

Every piece of research suggested that the future development of France, whatever France would stand for, desired to become or aimed to achieve, greatly depended on how Paris evolved. Yet, and this came as something of a surprise, Paris was found to be suffering from administrative neglect. It had been virtually taken for granted; that is, ignored in many subtle ways. It had, for instance, escaped the jurisdiction, hence the attention, of D.A.T.A.R. (Délégation à l'aménagement du territoire et à l'action régionale) which had done such imaginative and useful work in territorial management for the rest of France. Paris had been allowed to grow unplanned or, still worse, according to a general somewhat confused monothematic plan inspired by what the French called 'economic rationality', which seemed to ignore all the other functions, rôles and activities that go into the making of great cities.

These conditions which the events of May had crystallized now led the French authorities as well as the intelligentsia to focus their attention on Paris in an effort to understand the inner make-up of the problems besetting the capital. By 1970 this large scale soul searching had brought to light a number of discrete issues. What the press dubbed *la rogne de Paris* (an expression whose meaning comes alive if one remembers that *rogne* is translated as 'mange' in this context) can be reduced to the following points:

(1) *urban deterioration*, visible in the city's physical degradation ('Paris contains the best nineteenth century and worst twentieth century architecture in the world'), but also affecting the city's cultural life and social make-up, its overall style with everything this means for the quality of experience that had formerly made Paris so special;

(2) *loss of a sense of 'rôle'*, especially in the political arena *vis-à-vis* the expanding E.E.C. (the United Kingdom was soon to join it, and this seemed to make the French nervous); the enhanced importance of Brussels where international organizations had moved thanks to one of President de Gaulle's least comprehensible decisions; the growing competition from cities such as Amsterdam, Rotterdam, Frankfort, Zurich, Geneva, Milan and now London within a new and still mysterious European order;

(3) *lack of a sense of the future*, attributable to myopia regarding the functions of Paris and their relation to events like the unmistakable evolution of advanced industrial economies into what had already been called 'the post-industrial society' – a society grounded on a 'global industrial system' in which the Third World must fully participate;

(4) *lack of a concept of what Paris 'ought' to be*, a lack of vision and purpose concerning the city's identity or what the French preferred to call its 'vocation' in a changing world, and also

within the context of France itself, for Paris was seen as pursuing its haphazard course at vast cost to the country as a whole, disequilibrating the economic balance by acting as a 'suction pump' which concentrated a constantly growing share of economic activity and decision making authority within its already unmanageable confines.

These and many other similar issues were sensed but not articulated in detail, nor was it yet grasped that they might be symptoms of deeper dysfunctions which, being interactive, fed upon each other and thus gained momentum at an alarming rate.
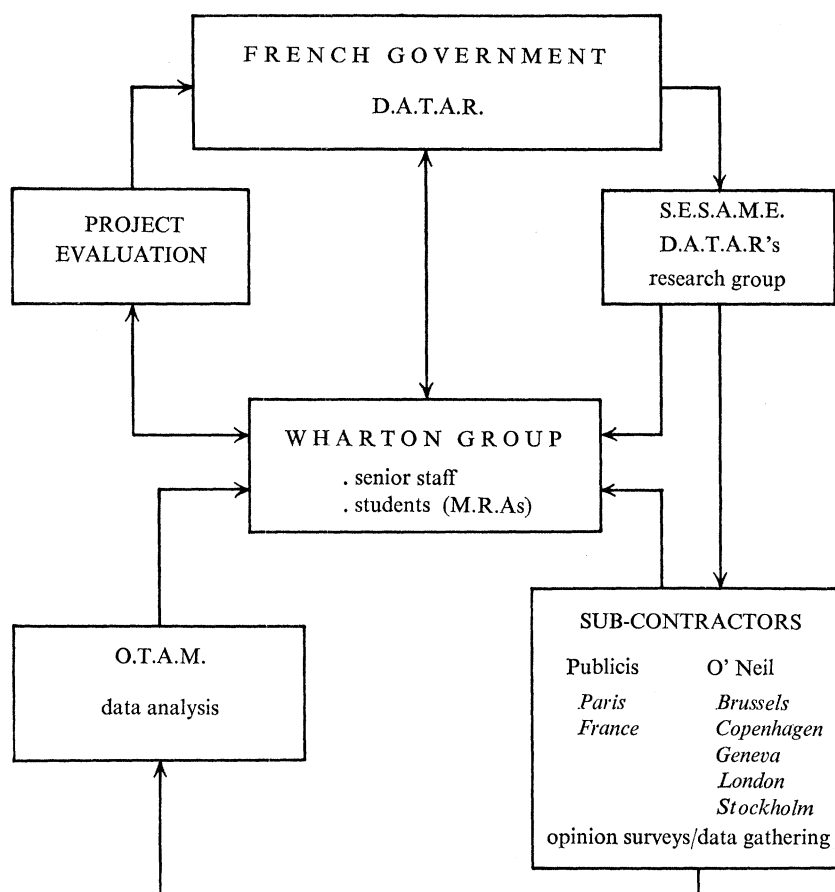

FIGURE 1. Organization of Project.

Such a possibility was not seriously considered because at the time traditional incrementalist approaches were still believed adequate to cope with the kind of policy issues I have just noted. However, it must also be admitted that some agencies of the French Government, notably D.A.T.A.R., were beginning to realize that the situation might warrant experimentation with some of the new ideas that had originated in those reaches of systems thinking which have since come to be known as Planning Theory, and which the French called 'Prospective'.

It was at this point, and because of D.A.T.A.R's desire to explore new avenues, that the Wharton Group was invited to undertake what is now referred to as the Paris Project.

From the start, the work to be done was viewed as a long-range planning study of the action research type. Activities were organized with the aim of achieving the widest possible participation by the French authorities and by selected constituencies representing a broad spectrum of opinion. To save space I am giving a simple outline of this organization in figure 1.

PARIS: DESIGN OF A FUTURE

The study's initial and guiding precept was that a methodology had to be invented that could cope with an extremely complex and unbounded subject – we already knew 'Paris' included levels and dimensions of reality which greatly transcended its usual meaning. Construction of this methodology was considered to be an integral part of the research.

Methodological formalism was abandoned in favour of more flexible, heuristic approaches. These, and the substantive issues they permitted us to deal with, can best be expounded with reference to a general planning process that I developed in the late 1960s and which now became central to our work. Certain aspects of this type of planning – it has since been named 'interactive normative planning' – should be explained at this point. First, the principles from which its fundamental conception was derived, postulate that:

(1) planning is a 'holistic', as against an 'incrementalist', approach to the solution of interlinked, non-segregable sets of complex problems;

(2) in planning, what is meant by *solution* is the 'design' of some new situation representing an outcome which is more valued than the present situation;

(3) planning always involves 'experimentation' in the design of outcomes and in the selection of means to achieve such outcomes;

(4) planning is a decision making, hence a 'voluntaristic', process;

(5) planning is aimed at the formulation of 'policy' – i.e. the determination of *interventions* which will be made in a situation so as to change that situation into one which is preferred.

The operational meanings of these statements will become evident as we proceed. For the moment let me only add that the main techniques used in this kind of planning are system-analytic models and scenarios of different kinds.

The paradigm of the process as a whole is given in figure 2, where the various *phases* involved are indicated by roman numerals: I, the reference projection; II, the normative plan; III, the strategic plan; IV, the organizational and implementation plan. It is in terms of these phases and of their component steps (indicated by arabic numerals) that I shall now try to describe how the Paris Project evolved.

Phase I: the reference projection

Basically, what is termed reference projection is an attempt to structure the highly confused, overlapping, and often blurred sets of problems that trigger an initial disquiet, something I shall henceforth call the '*problématique*', into some kind of model capable of suggesting causal linkages among them.†

To build such a model it is necessary to visualize the problématique in all its relevant dimensions, namely as pertaining to a nested system. The latter can be conceived as consisting of three concentric environments: the 'internal environment' of the core system (Paris in this case), a larger surrounding 'transactional environment', and a still larger embedding 'contextual

† I had first used *problématique* in 1969 when writing the basic prospectus of the Club of Rome. The French noun became part of our terminology as English has no word that corresponds exactly to it. Ackoff uses 'mess' to describe the same thing. Although colourful and expressive I do not find the term totally apt. In French, *problématique* has been employed to refer to a synthesis of the questions that a particular philosopher addresses, e.g. '*la problématique cartésienne*'. Recently the meaning of the word has been enlarged to encompass any set of ill-structured, ill-defined, or poorly delimited problems.
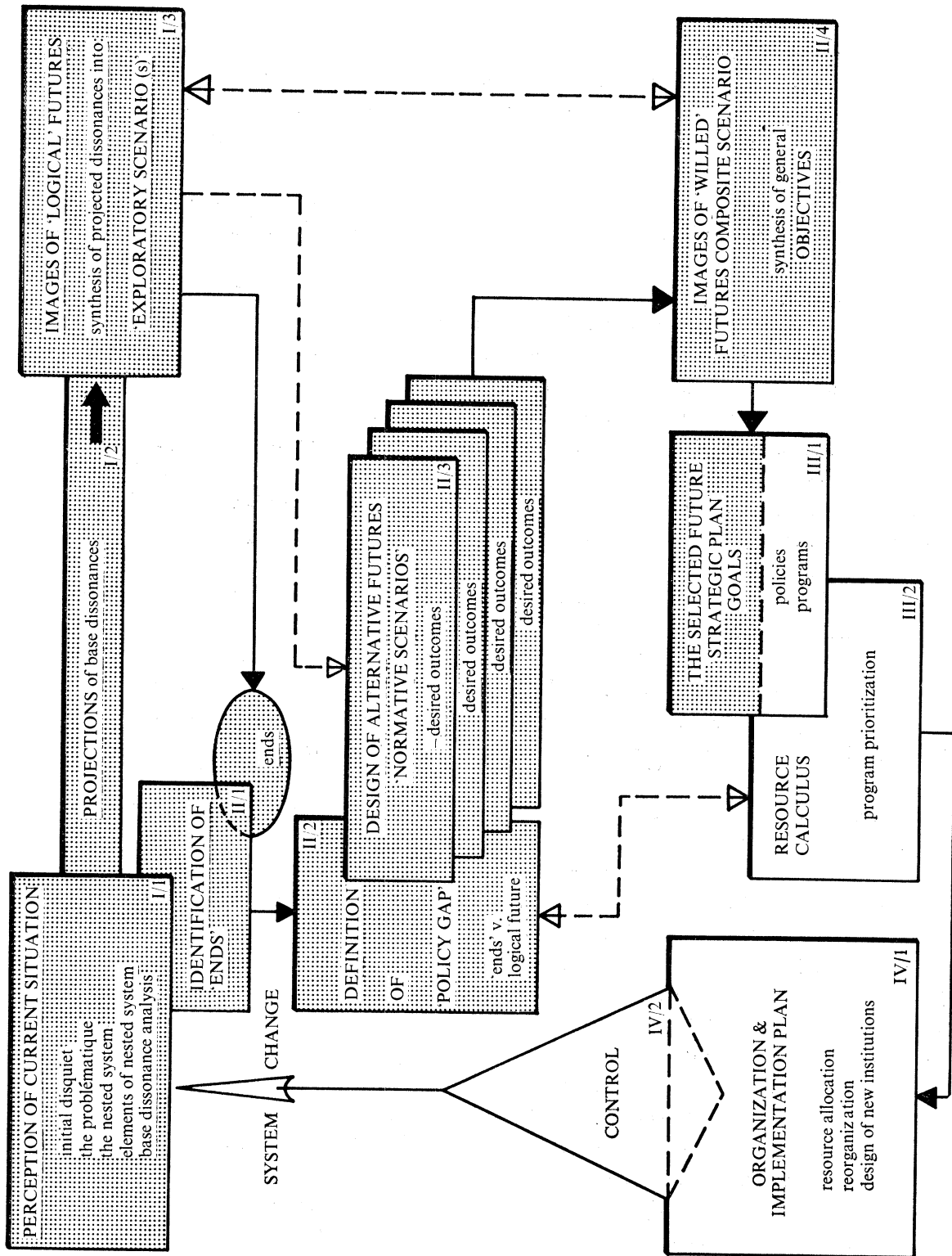
FIGURE 2. The planning process.

environment'†. The main criterion for determining the boundaries of these environments is the degree of intersensitivity and synergy among the events generated by each and radiating throughout the entire nested system. Once such environments are determined it becomes necessary to identify and name their major functional and structural components. The detailing such analyses involve is extensive in the case of the internal environment, somewhat less so for the transactional and merely indicative for the contextual. The most important among the elements identified in the Paris Project are shown in figure 3.

After the nested system has been mapped in this fashion the most intensive interactions among the elements must be found and investigated in some depth. In this search we relied on the information at hand which (among other things) repeatedly pointed to the fact that 'throughout France, but especially in Paris, economic forces were the driving forces, while political forces played a restraining rôle'. The operational significance of this belief, which seemed to be universally shared, would, if one succeeded in investigating it fully, permit us to penetrate the problématique. Such an investigation required that a dissonance analysis be made to study the pattern of interactions existing between the political and the economic subsystems (The ensuing discussion will be easier to follow if repeated reference is made to figure 3.). This initial analysis disclosed a number of provocative points which can be highlighted as follows:

(1) In the economic sub-system the Eco 2 Sig sector displayed the highest rate of growth, and the most marked tendency to concentrate in Paris.

(2) Its dynamism was at the source of certain major problems since it caused the displacement of Eco 2 R.P., competition for residential and office space in the better districts, inflationary increases in rents, heightened traffic congestion, etc.

(3) The increasing power of Eco 2 Sig appeared rooted in an informal but formidably effective coalition it had created with H.C.S. (the higher strata of the political sub-system). This coalition seemed quite natural, not only because of Eco 2 Sig's need to influence government policy while benefiting from government support, but also because of the total commonality between the two groups' social background, attitudes, outlook and interests: both comprising chiefly individuals with s.u. 1 and p.u. 1 backgrounds, and both sharing strong (p) attitudes.

(4) However, by 1970 this ruling coalition was becoming strained over two major policy issues: (i) Eco 2 Sig needed and favoured foreign investments whereas the government distrusted them; and (ii) disagreements concerning the attitudes and products of the educational subsystem which need further comment. The educational sub-system in France is an arm of the government and belongs to the Civil Service. With a few notable exceptions in the *Grandes Ecoles* it suffers from virulent traditionalism in its world view, pedagogy and organization. It upholds deeply entrenched (m) attitudes and seeks to imbue students with the same inertial conservatism, which makes it almost impossible for it to produce Eco 4 types of 'knowledge' workers in the quantities Eco 2 Sig needs in ever greater numbers. Eco 2 Sig's disenchantment with the educational system (a very powerful sector of the political sub-system) was difficult to remedy because the student riots of 1968 had hardened all sectors of opinion, and the political sub-system tended to side with the educational, especially that people in Eco 4 fields of activities were known to be infected by (d) attitudes, and thus to favour change.

(5) Because of all this, Eco 2 Sig had, by the early 1970s, begun to re-evaluate its position and its commitments, and H.C.S. reacted by doing the same. These realignments generated tensions

† The terms 'transactional' and 'contextual' environments as descriptions of a system's 'external environment' were suggested by Professor E. L. Trist.

FUNCTIONS	INTERNAL ENVIRONMENT		TRANSACTIONAL ENVIRONMENT	CONTEXTUAL ENVIRONMENT
	ACTIVITY SUB-SYSTEMS	MAIN URBAN GROUPS	FRANCE	EUROPE (E.E.C.)
POLITICAL	p.s.: POLITICAL SUB-SYSTEM government of France the bureaucracy H.C.S. Higher Civil Service M.C.S. Middle Civil Service L.C.S. Lower Civil Service the educational system	s.u. 1: old Parisian higher bourgeoisie		FRANCOPHONE
ECONOMIC industrial financial commercial	e.s.: ECONOMIC SUB-SYSTEM Eco 1 agricultural/rural Eco 2 industry: provincial Eco 2 Sig ind.: internationalizing/high technology/modern	s.u. 2: working middle class p.u. 1: rich provincials living/working in Paris	INDUSTRIAL SOCIETY URBAN SOCIETY RURAL COMMUNITY	LESSER DEVELOPED COUNTRIES (f.l.d.cs)
CULTURAL SOCIAL	Eco 2 R.P. ind.: Parisian Eco 3 services: traditional Eco 4 'knowledge' sector Eco 5 small entrepreneurs Eco F real estate/ development/construction	p.u. 2: rurals coming to work in Paris p.u.*: 'knowledge' workers: research/software/design/ planning/O.R./consulting/etc.	AGRICULTURAL SECTOR	THE WORLD
	ATTITUDINAL PROFILE	(m) conservative (p) managerial/analytical (d) liberal/change-oriented		

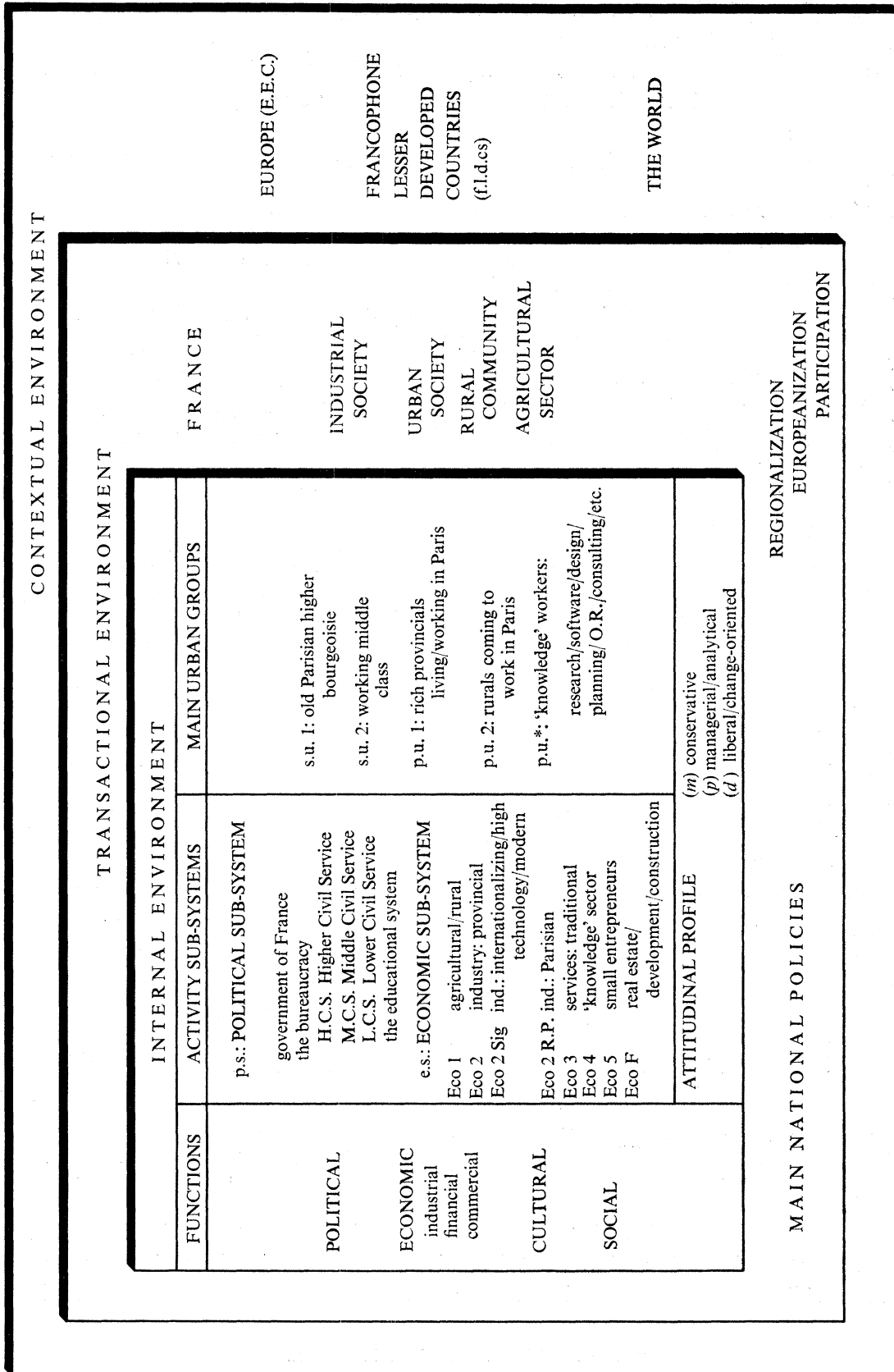MAIN NATIONAL POLICIES — REGIONALIZATION / EUROPEANIZATION / PARTICIPATION

FIGURE 3. The nested system and its component elements.

as Eco 2 Sig's acquired momentum was increasingly hedged in and controlled by the now heightened inertia of the political sector.

Thus our first probe of the Paris probématique revealed that an old equilibrium which had characterized the situation until about 1968 was now losing stability and coherence due to factors such as:

(1) economic over-concentration in and around Paris (with enormous costs to the rest of France);

(2) the increasingly international needs and outlook of Eco 2 Sig;

(3) the rapid rise of an important change-oriented activity group (Eco 4);

(4) the dependence of Eco 2 Sig on Eco 4;

(5) the inability of the educational system to satisfy the needs of Eco 2 Sig, and the hardening of its (m) type attitudes especially at the higher levels of the Civil Service;

(6) a growing cohesion of outlook among groups sharing (d) type attitudes;

(7) the emerging possibility of new coalitions between (p) and (d) type attitudes;

(8) the general neglect of most other economic activity groups (except for Eco F which always appeared to work in conjunction with Eco 2 Sig).

The first and last of these factors made the supposition unavoidable that such events unfolding in Paris must also create serious dissonances throughout France among the main components of the transactional environment identified as 'industrial society', 'urban society', 'rural community' and 'agricultural sector'. This inference proved justified when the dissonance analysis was extended to the country seen as a whole. To do this we introduced another set of elements; namely, the principal current 'policies' of the French government – 'regionalization', 'Europeanization' and 'participation', which had been identified as important components of the transactional environment. Whether and how these policies reconfigured the dissonance map was a fundamental issue to be probed in depth. I should mention here that later the map was further expanded to include the contextual environment; however, the analysis in that instance was relatively cursory, because at that particular stage there was no need to go beyond what was happening in France. The format of the entire map reduced into a base dissonance matrix is outlined in figure4 .

The findings at this point informed us among other things that France's industrial pattern was being rapidly altered by eastward migration toward Paris and the 'dynamic regions'†; that this was in some areas weakening the texture of the urban society, whereas in others it was creating infrastructural havoc and confusions that would lead to new disruptive problématiques; that the rural community had become an archaic institution in the nation's make-up and had no visible chance of surviving to the end of the century; and, finally, that the agricultural sector's structure, which traditionally had been one of small land-holdings, was well on its way to becoming one of conglomerate units, owned by corporate entities and operated commercially along integrative agri-business lines. Of course, these major, wrenching changes were occurring haphazardly, without benefit of any planning, and as the result of the supposed free play of economic forces.

These occurrences were also felt to be consequences of what was happening in Paris. And furthermore, it was implicitly evident that the policy of regionalization (on which a great many hopes were riding) would not arrest these trends; that the policy of Europeanization would only

† These will be discussed later in the text.

help the large corporations in Paris; and that there did not exist anything which might be called a policy of participation.

The full set of findings from the base dissonance analysis provided a complicated, loosely structured, yet fairly orderly snapshot of the current situation in Paris and its environments. The next step was to enlarge this picture by projecting it into a thirty-year time horizon by extending the matrix. The format of this extension is outlined in figure 5.

NESTED SYSTEM ↓ FUNCTIONS →	1970		
	POLITICAL	ECONOMIC	SOCIO-CULTURAL
(IE) INTERNAL ENVIRONMENT political sub-system economic sub-system urban groups			
(TE) TRANSACTIONAL ENVIRONMENT industrial society urban society rural community agricultural sector			
(CE) CONTEXTUAL ENVIRONMENT Europe (E.E.C.) francophone l.d.cs the world			

FIGURE 4. Base dissonance matrix.

This figure contains three separate matrices of three levels each. From left to right we have: a replication of the 1970 base dissonance matrix for the periods 1970–85, and 1985–2000. In frames 1.1, 1.2, 1.3, 2.1, 3.1 the elements whose interactions have already been identified are kept unaltered. On the other hand, frames 2.2 through 3.3 are seen as dynamic and studied in terms of the changes or trends that are most likely to occur in them under the impact of un-changed current policies. This procedure yields new and very different distributions of (future) dissonances within the transactional and contextual environments.

When the cross-impact effects of these trends are analysed a series of new *intense dissonances* come to light. These represent dysfunctions that will grow within the internal and transactional environments if no corrective interventions are made in the interim – that is, if no *new* 'policies' are formulated and acted on during the period 1970–2000.

It is by organizing these intense dissonances into the description of a situation that, in the last step of the reference projection, one constructs the kind of scenario I call 'the image of the "logical" future'.

NESTED SYSTEM / POLICIES →	1970												1970–85												1985–2000											
	regionalization				Europeanization				participation				regionalization				Europeanization				participation				regionalization				Europeanization				participation			
functional impacts	p	e	c	s	p	e	c	s	p	e	c	s	p	e	c	s	p	e	c	s	p	e	c	s	p	e	c	s	p	e	c	s	p	e	c	s
IE PARIS	1.1												1.2												1.3											
political S-system																																				
educational S-syst.																																				
city government																																				
economic S-system																																				
urban groups																																				
TE FRANCE	2.1												2.2												2.3											
industrial society																																				
urban society																																				
rural community																																				
agricultural sector																																				
CE EUROPE (E.E.C.)	3.1												3.2												3.3											
francophone l.d.c.'s																																				
the world																																				

FIGURE 5. Projective dissonance matrix. Impacts are: p, political; e, economic; c, cultural; s, social.

Since this scenario describes what might be expected to happen if things are left alone and the system is allowed to evolve without new interventions, the future it depicts is entirely unreal, aside from being wholly disastrous. However, as I noted earlier it serves to enlarge the original picture of the current situation and reveals the problématique's latent structure – something which had not been visible to the naked eye.

It is not necessary here to dwell on the content of the three 'images' of the logical future that were built, one for each of the policies being considered. Suffice it to say that every one of them fully confirmed the catastrophic potentialities hidden in the current situation – potentialities that in a somewhat earlier work D.A.T.A.R. had sensed while investigating where regionalization might lead, and which the French public had immediately named '*le scenario de l'inacceptable*'.

Phase II: the normative plan

Once the structuring of the current problématique has been completed, it becomes necessary to concern oneself with the *design* of those future states of the system which are deemed to be good, hence 'desirable'. The design of such future states requires, first, that concerted decisions be made defining what is desirable; and secondly, that concerted actions be defined to realize the decisions. It is in the normative planning phase of the process that one addresses the question of the desirable future. This is done by visualizing two types of future states for the system: (i) the 'ends' which the actors involved are able to conceive in the form of ideals to be constantly approximated but never completely achieved; and (ii) 'objectives' which are the most valued future states that one can derive from such ends, and which while fully attainable remain beyond the specified planning horizon (Ackoff)†.

The formulation of ends presents rather formidable practical difficulties since they reflect the *value system* of those participating in the planning work, and that of the society they represent.

The method for eliciting these values has since been refined by Ackoff in his work on the process of idealization, idealized design and idealized scenario construction. However, in 1971 when we had to figure out the value-base from which to proceed, the scenario approach was still too cumbersome and time-consuming. We chose to rely primarily on interviews and the interpretation of the survey data being generated by the French sub-contractors (figure 1). After much work a consensus was reached which expressed the values that were generally held about Paris. These could be reduced to the twin notions of *primacy* and *uniqueness* – both being, in the French mind, historical properties of Paris as an 'ideal city'. Having determined what the French thought Paris 'ought' to be, it became necessary to ask, 'What form should *primacy* and *uniqueness* take?' or, 'What ends, within what context, do *primacy* and *uniqueness* name?'

It is this question which led to the formulation of the expressions 'privileged crossroads' and 'mediating centre'. (Unfortunately, the wealth of meanings these expressions connote in French is lost in translation.) It became possible to conclude the 'ends-setting' step with the statement:

'To satisfy the values of "primacy" and "uniqueness", Paris must become a *privileged crossroads* and a *mediating centre* within environments whose evolution will be relevant to, and legitimatize, this vision of the city's future'.

The environmental evolution mentioned in the statement referred to: (i) the emergence of a

† 'Goals' are also desired future states, and they are defined as being attainable *within* the planning horizon. I agree with this further formulation of Ackoff's. However, in the planning process that I am describing, goals are seen as the 'outcomes' of particular actions. Therefore, they are assumed to belong to the strategic planning phase which will be discussed further on.

European Community of Nations that would give a political dimension to the European Economic Community; (ii) the development through industrialization of the Third World; (iii) the transformation of the present advanced industrial countries into a post-industrial society; and (iv) the advent of a global industrial system, institutionalized within a new world economic order.

TABLE 1. VALUE-BASE, ENDS AND THE PRESENT POLICY GAP

(a) current profile of Paris	(b) goals	(c) objectives	(d) ends	(e) values
national capital				
'nationalistic' city				
élitist centre				
conservative centre				'primacy'
authoritarian admin.				
non self governing				
costly to France				
'suction pump' effect			'privileged	
reliance on 'economic			crossroads'	
rationality'				
growth through	← the present 'policy gap' →			
industrialization alone			'mediating	
Eco 2 Sig dominated			centre'	
weak in financial functions				
deteriorating environment				'uniqueness'
francophone l.d.c.-oriented				
culturally 'ethnocentric'				
city of diminishing				
creativity in all functions				

When these elaborations of the ends are set against the findings obtained in the reference projection a 'gap' comes into view which must first be filled in by the objectives and ultimately by the goals. The gap itself defines the gulf between current reality and the future state that the present value-system dictates. The steps needed to fill it, namely how to get from here to there, are suggested in table 1, which is divided into five columns. The main elements of the problématique are listed in column (a), the values that have been elicited in column (e) and the ends hitherto identified in column (d). What remains to be filled in are first the objectives in column (c), then in the next phase of the process, the goals in column (b). If all this can be done in a logically consistent manner, then, as we shall see, the chart can be read from left to right and reveals what needs to be done to close the gap. For the moment we shall be concerned only with the formulation of objectives, i.e. with the steps to be taken to fill column (c).

The definition of objectives begins with what in figure 2 above I called 'design of alternative futures', and the main instrument used in such design is the normative scenario.

The normative scenario proposes a future state of a system configured in accordance with the 'context-related assumptions' that have been identified in the process of ends-setting. Then the system, in this case Paris in terms of its current problématique, is introduced into these macro-views and redesigned (changed, altered and manipulated) in ways that render it capable of maximally approaching its 'ends', while minimizing, or possibly eliminating, the dysfunctions in its present situation. Thus, such scenarios are constructed around a set of variable relationships among assumed future configurations of transactional and contextual environments and the idealized image of a currently dysfunctional internal environment. They are 'normative' in the sense that while the external environments are based on assumptions, the shape and behaviour of the internal environment are prescribed.

In the case of Paris most of the needed elements having already been identified and detailed, it was not difficult to choose two major scenario *themes*. The first rested on the 'privileged cross-roads' idea, namely: 'How should Paris be redesigned so that it may become a "privileged crossroads" within a context defined by a European Community of Nations, a global industrial society and a post-industrial society which are assumed to have come into being during the period considered?' The second rested on the idea of 'mediating centre': 'How should Paris be redesigned so that it may play the rôle of 'mediating centre' in a context where the development of the Third World needs to be facilitated and accelerated in such a way that the diseconomies and environmental costs, that inhere to known industrial modes of life, are avoided or at least minimized.'

TABLE 2. OBJECTIVES DERIVED FROM ENDS TO CHANGE CURRENT PROFILE INTO THAT OF 'GLOBAL CITY'

(a) current profile of Paris	(b) goals	(c) objectives	(d) ends	(e) values
national capital				
'nationalistic' city		'political		
élitist centre		regiocentricity'		
conservative centre				'primacy'
authoritarian admin.				
non self governing		'economic		
costly to France		geocentricity'		
'suction pump' effect			'privileged'	
reliance on 'economic			crossroads'	
rationality'		'urban		
growth through		rationality'		
industrialization alone				
Eco 2 Sig dominated			'mediating	
weak in financial functions			centre'	
deteriorating environment		'post-		'uniqueness'
francophone l.d.c.-oriented		industrialism'		
culturally 'ethnocentric'		'cultural		
city of diminishing creativity		policentrism'		
in all functions				

In terms of new functions and rôles, the first scenario led to a visualization of Paris as a multi-national city; the second, as a global city where *grands desseins* of world import could once again be generated and carried out.† These scenarios yielded a considerable number of out-comes, or future-state descriptions. In the next step, i.e. the construction of the 'composite scenario', they were combined, evaluated and synthesized to produce the 'image of the willed future' from which the 'objectives' to be attained are distilled.

The objectives which the very complex and lengthy 'composite scenario' yielded can, for brevity's sake, be paraphrased as shown in table 2.

Phase III: the strategic plan

The strategic plan corresponds to what Ackoff has called 'means planning', that is, the identi-fication and organization of the means needed to pursue the objectives. In my terminology 'means' refers to 'goals', 'policies' and 'programs'.

† The 'Multinational scenario' as it has come to be known was written by Professor H. V. Perlmutter, and 'A distinctive international rôle for Paris' by Professor Michel Chevalier.

Goals are defined as desired outcomes of action attainable within the time horizon of a plan. They are derived from objectives or, to be more precise, the meanings of the objectives are exploded into goals. Policies (*new* policies) are then extracted from the goals. Programs are the elaboration of these policies into specific, scheduled and organized activities. Goals translate objectives into guildelines for action, while policies reorder such statements in the light of strategic choices, and programs pattern the action within a framework of priorities dictated by both synergies and resource limitations.

OBJECTIVES   GOALS   to attain the objectives set for it Paris WILL....

| POLITICAL REGIOCENTRICITY | become 'self-governing'
become an open city
denationalize
become the capital of E.C.N. |

become the seat of 'multinational' institutions/regulatory authorities
develop multinational functional specializations
become the seat of Third World product associations
develop worldwide financial information management system

| ECONOMIC GEOCENTRICITY |

| URBAN RATIONALITY | limit population influx
deflect industry to dynamic regions
become a world centre for environmental research/planning/services/etc.
protect the centre of city by regulation |

create a 'technetronic' industrial base
become centre of 'informatique' design and production
become centre of 'knowledge'-based services

| POST-INDUSTRIALISM |

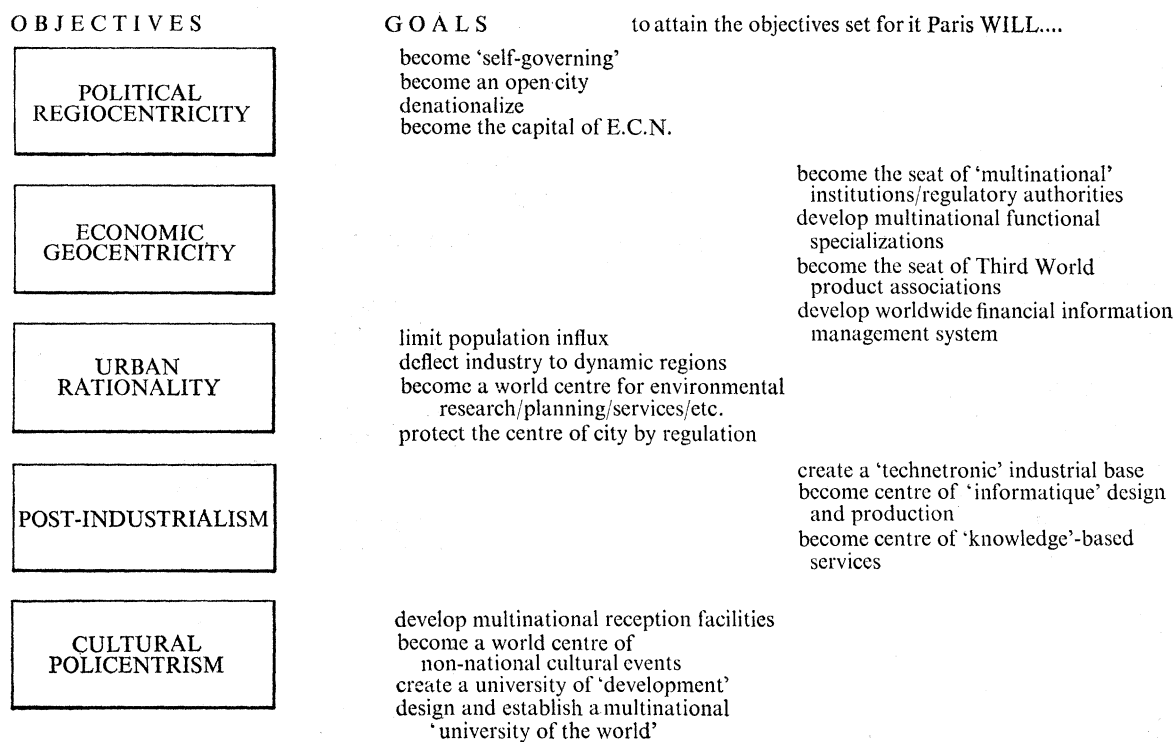| CULTURAL POLICENTRISM | develop multinational reception facilities
become a world centre of non-national cultural events
create a university of 'development'
design and establish a multinational 'university of the world' |

FIGURE 6. Goals derived from objectives.

It is, of course, to define goals and derive new policies from them that any planning is undertaken in the first place. Therefore, this phase of the work will be discussed in greater detail than the previous ones.

The goals that were derived from the general objectives are shown in figure 6.

I shall, in the following pages, reorganize the goal-sets in terms of functional relations and discuss some of the relevant action recommendations that were made in the strategic plan.

Goals related to political functions

goals	primary function	secondary function
(1) Self-government	p	
(2) Open-city status	p	e
(3) Denationalization	p	
(4) Capital of E.C.N.	p	
(8. Seat of multinational authorities)	e	p

These goals are among the most critical and significant ones. They are primarily aimed at making Paris independent of the rest of France, and at preparing the city for the rôle of Europe's

capital should the expected evolution of the European Economic Community into a European Community of Nations take place.

The reasoning, in the first instance, arose from the fact that among all French cities Paris was the only one that did not have its own government.† It was administered by national government appointees – a situation felt to be increasingly intolerable by most Parisians, one of the major causes of current tensions and an important element of the problématique. Nor, as we found out in making our alternative futures designs, could Paris hope to become a 'privileged crossroads' and a 'mediating centre' under this form of governance. It could not become an 'open city' with the multinational status that economic change demanded and the study envisioned for it. Certainly, it could not aspire to become the capital of a new Europe. For this last, it not only needed to make all the moves just indicated but also to 'denationalize'. This meant Paris could no longer remain the administrative capital of France. The national government would have to move to some other city, and Paris find a new regiocentric political and geocentric economic identity of its own.

These views, which might appear radical, were reduced to specific recommendations and accepted in their entirety by the sponsoring authorities. Recent developments in French policy regarding the institutional redesigning of Paris would indicate that the implementation of the recommended steps is being pursued according to the schedules that were proposed.

Goals related to economic functions

goals	primary function	secondary function
(2. Open-city status)	p	e
5. Seat of l.d.c. product associations	e	
6. Centre of g.i.s.cs specializing in: transnational marketing information systems financial planning organization planning and development O.R. activities	e	
7. Deconcentration of industry through deflexion to dynamic regions	e	
8. Seat of multinational authorities	e	p
(9. Limit Parisian population through deflexion)	e	s
10. Centre for environmental research – planning/services, etc.	e	
13. Specialization in 'software' (*informatique*)	e	e
14. Industrial base: technetronic industries	e	e
15. Centre for new worldwide financial functions	e	
16. Centre for 'knowledge'-based services	e	s
17. Centre for multinational 'reception' facilities	e	c
(18. Seat of university of development)	c	e
(20. City of 'knowledge' workers)	c	e

These goals represent the largest sub-set as could have been expected given the economically weighted nature of the initial situation. In discussing so large a set it might be helpful to group the goals.

In order of importance the first grouping would consist of those goals which are aimed at changing the *economic profile of Paris* into one more consonant with the political outcomes we have just considered. Such a group would contain goals 7, 9, 13, 14, 16, 20, 10 and 15.

† This situation has recently been corrected.

The first two (7 and 9) are tightly interconnected in that they aim to alter the trend towards industrial concentration in and around Paris and to stabilize the region's population at a viable level (12 million for the region by the 1980s)'.

'Deconcentration' turned out to be a complex phenomenon. First of all, it is not basically a Parisian problem, because 'concentration' in and around Paris is the result of the economic organization and dynamics of the country as a whole. This situation is portrayed in figure 7 which

(a) Pattern of skilled
and semi-skilled
worker migration
and concentrations
(Paris omitted).

(b) ■, Pattern of heaviest
concentrations of
industrial activity (Paris
omitted); □, patterns
of heaviest traditional
services concentrations
(Paris omitted).
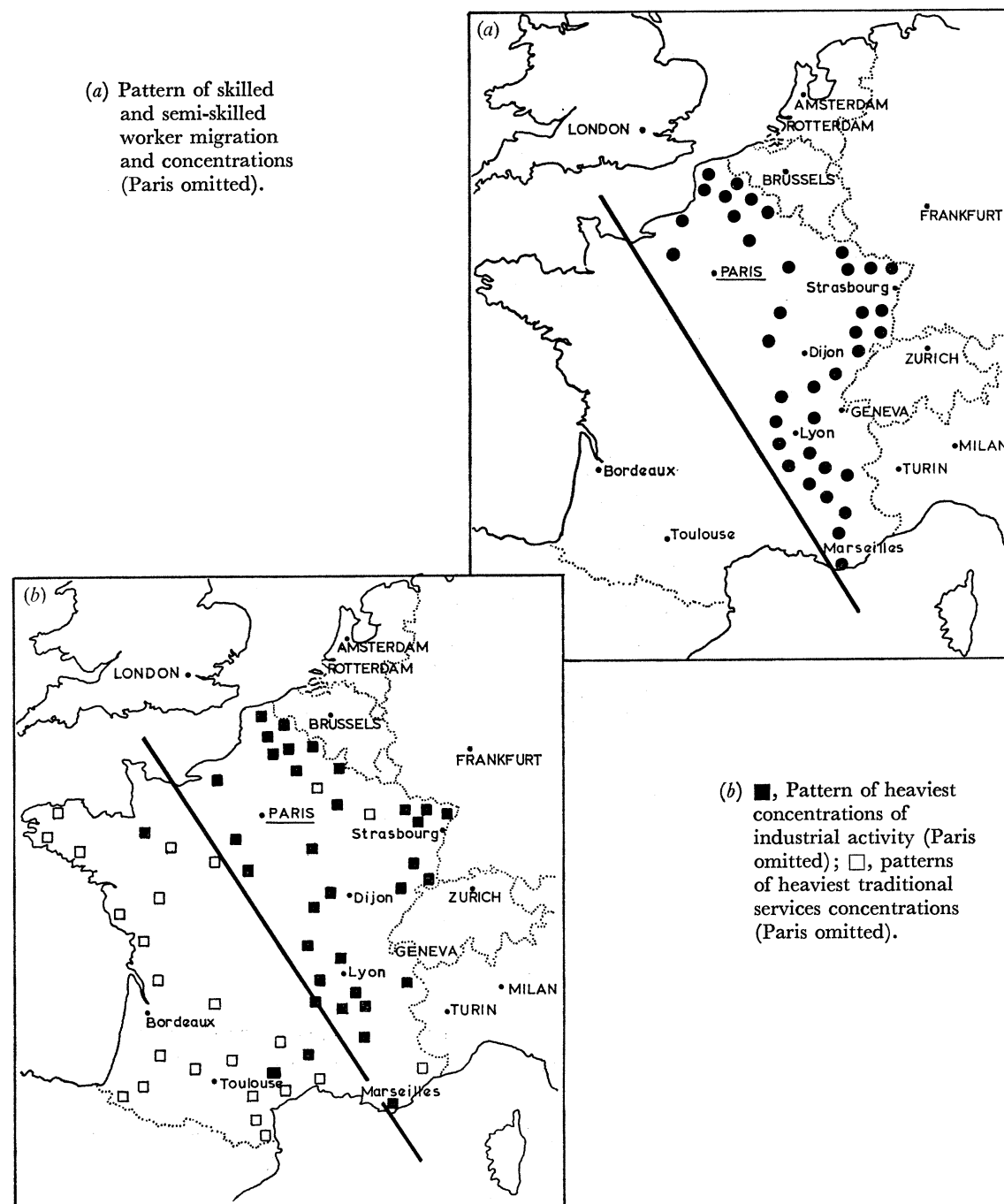
FIGURE 7. Economic concentration patterns.

shows a France divided by a straight line going roughly from Le Havre to Marseilles. All viable economic activity tends to move to the eastern side of the line – towards several of the main urban centres but especially Paris – whereas the western part of the country is rapidly becoming, in the words of the French themselves, '*le désert français*'. Such a pattern of development creates a dual issue: saving Paris through deconcentration, and reclaiming the West, which in the main has deliberately resisted large scale industrialization. To attack this twin problem we had,

(a) —, Dynamic 'transnational' regions; – – –, proposed southwestern, western and northern development patterns.
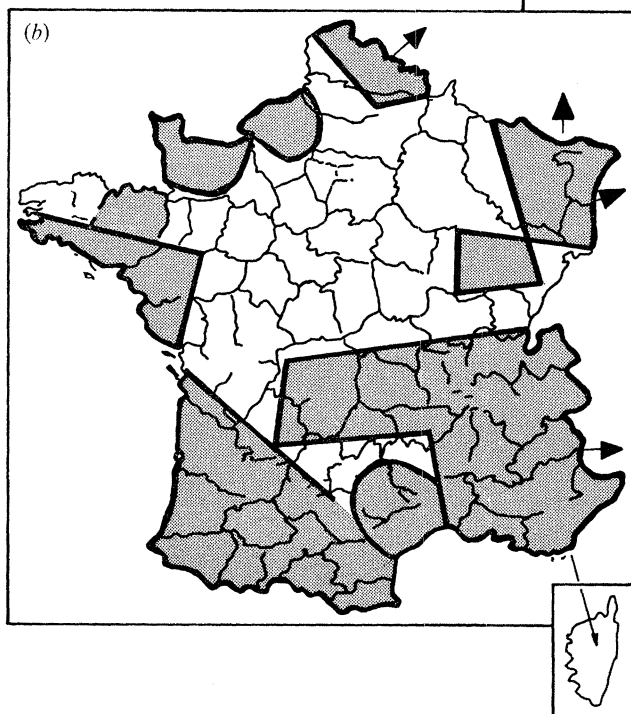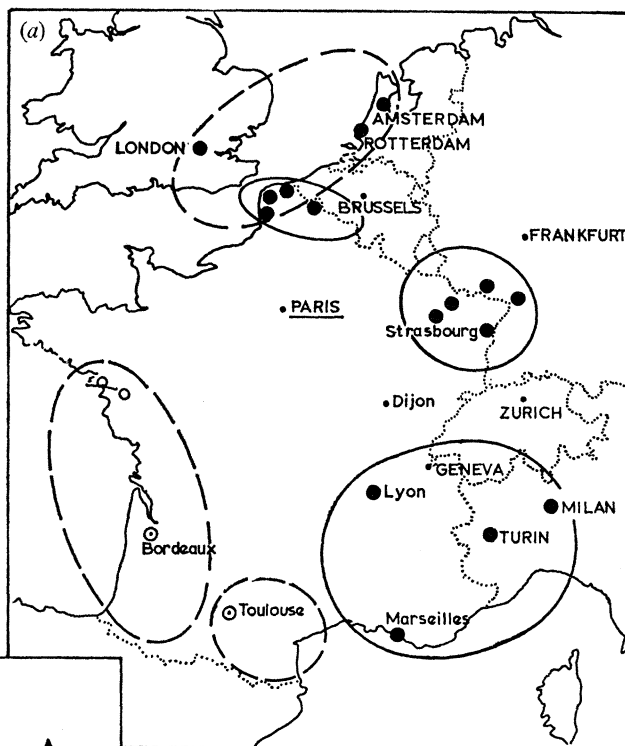
(b) Currently forecast and planned development of above regions.

FIGURE 8. New regional concepts.

among other things, to take a closer look at those eastern regions where industrial growth was proceeding apace, and where much of the overflow from Paris would have to be absorbed.

Our analysis led first to a reconceptualization of the western regions and to a further detailing of the idea of 'micro-zones' through the designing of supporting economic activities. The work indicated that new industries based on local traditions (i.e. mariculture, tourism, etc.) plus the natural growth of the existing economic base would revive the western regions and increase their drawing power.

On the other hand a review of the centres of attraction in the eastern half of the country (excluding Paris for the moment) proved of striking interest. Here, not only were surprising concentrations of industries and workers noticeable, but the patterns of such concentrations revealed that the existing government policy of regionalization was not quite relevant to the events that were actually shaping the area. Most importantly, conurbanization around metropolitan centres such as Lille, Metz, Nancy, Lyon and St-Etienne was occurring at a rapid rate and, as viable industrial structures, the 'dynamic regions' developing around these cities were not exclusively French, but *transnational* in character. We realized that the emergent metropolitan agglomerations were new combinations of industrial centres, embedded in new regional configurations which are detailed in figure 8.

TABLE 3. EXPECTED ACTIVITIES PROFILE

activities	type
traditional commerce and trade	Eco 3
'new' services	Eco 3
'new' commerce and trade	Eco 5
technetronic industries	Eco 4
'knowledge' industries	Eco 4
'informatique' design and production	Eco 4
consulting	Eco 4
environment enhancing and protecting industries	Eco 4
environmental systems design services	Eco 4
urban systems design services	Eco 4
research and development	Eco 4
multinational reception services	Eco 4
multinational health delivery systems/services	Eco 4
multinational education	Eco 4
multinational recreation facilities/services	Eco 4
construction/area development/area renovation	Eco F
maintenance services	Eco 3

main activity	Eco 4 and F
supporting activity	Eco 3 and 5

It was immediately recognized that the expansion of these emergent transnational regions would have a major influence on what happened in Paris, and vice versa. Their potential for growth was carefully studied and recommendations were made for the deliberate fostering of the development of these industrial 'catchment areas'. That the French authorities are following up on these recommendations can be seen from a recent D.A.T.A.R. map delineating the main areas in which, as a policy, directed development is being visualized (figure 8).

Given these possibilities of 'decongesting' Paris through deconcentration and deflexion, most of the remaining goals related to economic functions were attempts to define the new, desired economic profile of the city. As could be expected, in new profile (table 3) the traditional industrial activities are almost entirely replaced by Eco 4 types of activities (technetronic

industry, software design and production, 'knowledge'-based services, environmental services, etc.). This post-industrial emphasis should not be considered as resulting only from the encouraged migration of Eco 2 Sig and Eco 2 R.P. activities to the 'dynamic regions'; it is the outcome of conscious policies seeking to alter the population make-up of the city so as to encourage greater, more creative synergies between the (d) and (p) attitudes.

Such a change is needed for political as well as economic reasons as can be surmised from the next grouping of goals; those (2, 6, 8, 17) which have to do with 'multinationalization' of the city and thus tie in with the envisioning of Paris as the capital of the European Community of Nations and as a 'global city'. Such a capital, aside from its 'open city' status, needs a population mix of worldwide outlook, transnational contacts, and the ability to deliver what we labelled 'multinational services' – health care delivery systems, worldwide financial information management systems, reception facilities, education, etc., all of a multinational character. On these points the economic goals have strong synergies with those that are related to cultural functions.

One aspect of multinationalization is also directly linked to the Third World and the city's prospective rôle as 'mediating centre'. Goals 5, 16, and 18 were formulated to strengthened this link.

Goals related to cultural functions

goals	primary function	secondary function
11. New construction in centre of city will be regulated	c	
12. Private traffic will be eliminated from centre of city		
(17. Multinational reception facilities will be created)	e	c
18. A university of development will be established	c	p
19. A world university will be established	c	
21. Centre of non-national cultural events	c	

Two of these goals (11 and 12) reflect the concern of Parisians over the erosion of the city's physical beauty and architectural harmony. Since by the time the project started new districts such as Rueuil and La Défense were already being developed as business areas, it was decided that high-rise buildings would continue to be built in them. The real problem was the older parts of central Paris: the Marais, the Bastille-République area, the Fifth and Seventh Arrondissements. In these and the Halles vigorous *assainissement* and reclamation were needed given the deterioration of buildings and the high value of the land they were built on. Despite the high cost of restoration and pressures from financial interests to exploit the land more profitably by constructing skyscrapers, recommendations against this move were accepted, and no new high-rise construction in these central areas of Paris has taken place since then. A major consideration in this decision was how to preserve the old districts without turning Paris into a *monument* or a museum. Current opinion is that this can be done if residential and commercial activities are kept functioning in these areas even after reclamation work has been completed.

Two of the most exciting ideas to surface among cultural function related goals were: the university of development, and the university of the world. The former was conceived to support the '*centre médiateur*' idea, and would be exclusively directed at facilitating the socio-economic development of the Third World. A special curriculum for this institution was outlined, and

TABLE 4. PROPOSED INDICATIVE SCHEDULE OF EVOLUTION

current profile of Paris	1970	1980	1990	2000	outcomes as defined by objectives
national capital			capital of E.C.N.		denationalization
'nationalistic' city			denationalization		multinationalization
élitist centre			capital of France moved to other city		decongestion
conservative centre					change of economic structure
authoritarian admin.					change of cultural outlook
non self governing		open city	new social structure with more (α) and (β) attitudes		change of social organization and relations
costly to France		self government			
'suction pump' effect		technetronic ind. base			arising from:
reliance on economic rationality		population limit and deflexion			political regiocentricity
		change of economic activities mix, and increase in post-industrial services	'informatique' design and production		economic geocentricity
growth through industrialization alone Eco 2 Sig dominated		multinational functional services			urban rationality
		development of transnational regions	development of worldwide financial information management system		post-industrial evolution
weak in financial functions		multinationalization			cultural policentrism
deteriorating environment	regulate city's centre	environmental research/planning/services			
		university of development			should create the desired
francophone l.d.c./ oriented	l.d.c. product associations				
culturally 'ethnocentric'		world centre for non-national cultural events	university of the world		global city
city of diminishing creativity in all functions		change city's social structure			

contains interesting innovations in this long neglected field. The second more ambitious idea was to create at some later date a university that would be multinational in every sense: curriculum content, faculty and student body. The university of the world is envisaged as one of the central nodes of a global educational network whose detailed design is expected to be undertaken sometime toward the end of the 1970s.

Goals related to social functions

No specific goals relating to the social functions of Paris were derived. This was based on the reasoning that if the preceeding sets of goals were to some degree attained over the course of the next thirty years, their very realization would, of itself, create the social structures, the human and group relations that were natural and necessary to make them viable. Almost all the stipulated goals were taken (in fact known) to possess social dimensions, and it was agreed that social functions should be left to mature within the frame of the other outcomes.

Final organization of goals within the planning period

The ordering of the goals in terms of an 'indicative schedule' completed the strategic planning phase of the work, in as much as the Wharton Group had not been asked to propose new policies or formulate specific programs. The indicative schedule that marked the penultimate stage of our activities is given in table 4.

Concluding steps

One final activity had not been anticipated at the beginning. Our sponsors desired to find out whether the idea of Paris as a global city, and the steps that must be taken to make it one, had validity in the opinion of the various constituents that had been introduced into the overall design. The Wharton Group was asked to address this question, as such an investigation fit the principle of 'participation' we had established from the start. Under the circumstances this had to be done as an *ex post* procedure, and involved a number of persons who had not worked on the project – who did not even know of its existence.

To satisfy this request it was decided to design a modified Delphi survey which would be run from Philadelphia. We determined to select four panels of respondents as follows:

panel (i)   A sample composed of the heads of large French industries (Eco 2 Sig, Eco 2 R.P. and Eco 2).

panel (ii)   A sample of French opinion leaders:
eminent political personalities,
higher civil servants,
labour leaders,
student leaders,
eminent intellectuals/writers/journalists,
eminent artists,
university professors and administrators.

panel (iii)   A sample composed of heads of non-French multinational corporations:
European,
North American,
Japanese.

panel (iv)   A sample composed of Third World personalities:
> government personnel,
> heads of planning agencies,
> heads of development agencies,
> higher civil servants,
> university personnel.

Members of Panel (i) and (ii) were chosen by French authorities; those of Panel (iii) and (iv) by the Wharton Group. The number of respondents totalled some seventy persons. The questionnaires prepared were lengthy and detailed, describing the origin and unfolding of the Project and explaining how the various 'goals' had been derived. Answers were requested pertaining to the validity of the premises, of the reasoning and of the conclusions. It was asked whether the goals were acceptable to the respondent and if he felt them to be feasible – that is, substantively and in terms of the proposed indicative schedule.

A Delphi survey is difficult at best, and when conducted over long distances it is terribly cumbersome. It came as a distinct surprise, therefore, that a consensus began to emerge as early as the third iteration, and finally became stable at a cumulative range of between 76 and 87 %.

The Delphi was probably the most time consuming portion of the Paris Project, but its outcome was both enlightening and encouraging.

In as much as all the details cannot be reported here, let me finish by citing two points, one that came out through what seemed to be unanimous agreement, and another concerning French policies that our analysis of the responses caused me to reach.

Almost unanimously the participants believed that the notion of global city as conceived in the project, was not only a valid idea but that it reflected a general evolution of worldwide trends which made it inevitable. They felt Paris would undoubtedly emerge as such a city by the year 2000; however, it would not do so alone. New York, São Paulo and Singapore would follow the same development and end up functioning as similar global cities. This opinion, I believe, makes great sense and should stimulate studies of the rôle of global cities within the evolving world order.

The second point had to do with the three national policies – regionalization, Europeanization, participation – which the French government had defined at the outset as the basic guidelines for national action. As I was working on the responses to the Delphi questionnaires, I sensed that the meaning originally given to these policies had now changed as a result of our work on the Project: the changes were interesting in that they were enlarging ones. What had been meant by Europeanization now appeared to have become the globalization of Paris; what had been understood by regionalization now seemed to have come to imply the Europeanization of France; and the narrow meaning given originally to participation seemed to have become akin to the process Ackoff has since called 'humanization' – something that suggests realms of social, but especially cultural, consonance among peoples. All this led me to think that the work done had perhaps given us an inkling of what we really mean when we say that under certain circumstances the system reorganizes itself at a higher level.