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Fabio Cutaia

# Strategic Environmental Assessment: Integrating Landscape and Urban Planning



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# Foreword 1

In his analysis, Cutaia believes that Strategic Environmental Assessment (SEA) could be correctly addressed, realised and implemented only through participative processes integrated within town planning. The recourse to participation bereft of rhetoric is necessary because its “value”, ever present at the centre of the evaluation, is an expression of judgement belonging to those directly involved in the process of transformation—in this case, the landscape. The same notion is valid for the town plan, but the two kinds of activities—SEA and plan/project of the landscape—present different yet complementary characteristics with several agents assuming adhesive roles or being the main factor of integration.

The use of participation in SEA is indispensable, useful and convenient, being:

- (a) *Necessary*: in order to define matters and degrees of values regarding agents and their individual perspectives, so as to understand the range of effects in a shared way, also increasing transparency and comprehension of the evaluative methodology implemented by the technical–scientific field;
- (b) *Useful*: because due to the involvement of different territorial transformations agents in the evaluation procedure, we can specifically define the acquisition of data, use of tools and individuation of indicator arrays according to the goals, enrichment methods and instrumental resources of the evaluation in itself in respect of the plan or project of landscape;
- (c) *Convenient*: because the participative process integrates the objectives of the evaluators (knowledge and transparency for decision-making) with beneficiaries of transformations (partisan advantages of the local system), improving the delimitation of the analytical field and conferring qualification to the landscape in the plan project. Planning creates the basic conditions for the transformation of the town, landscape and whole territory, while the evaluation contributes to the planning process, qualifying the project through the construction and comparison of different visions and scenarios.

The evaluation increases the value of the landscape project, above all through the careful and in-depth exploration of the prevision offered by the plan alternatives.

When such exploration of alternatives is conducted within informal and institutional participative paths of landscape transformation, it directly takes place inside an evaluative process including technical and administrative authorisations and political decisions.

Considering the landscape as dynamic and complex anthropologic data, the evaluation cannot assume a mere empiric basis, but should be supported by roles and analytical methods scientifically founded, noticed and accessible on an international level. Regarding the evaluation of specific local transformation phenomena, data must be searched for on each occasion, implicating the construction of knowledge, above all regarding the use of specific resources by local agents.

Nowadays, the typology of “institutional planning”, with exception to the Italian case, is everywhere recursive/circular and based on the interaction between proposers and beneficiaries, even before the implementation of the plan processes. Therefore, SEA is inserted into the planning structure in a gradual and incremental way, without huge innovations or procedural surprises in the regulation of the relationships among the agents of the transformations.

Cutaia’s research presents two study cases in which the level of participation is different and with them can be found the success of the landscape transformation projects. Linearity and circularity of the analytical and strategic visioning approaches are compared and examined, underlining with effectiveness the success and failures in landscape terms through the different manners in which the plans were addressed and implemented. The thesis suggests the prevalence of “urban and regional planning” in respect of “strategic planning” and the implementation of “placed-based” policies. This is because, outside institutional planning, the design approach to be shared is merely reduced to the analysis or validation of individual projects in the wider frame of the transformations contemplated by the landscape plan. In the conclusion, the continued relationship and the reciprocal mutualisation between plan, evaluation and landscape are highlighted. Given that landscape requires a multi-scale and multi-objective integrated approach, both the institutional planning and that of the landscape sector are present near the strategic planning in a directly related way within a legal procedure. In each typology of strategic plan, eventually we find reference to juridical norms surrounding land use, which makes possible the concrete realisation of strategic visions through systemic or individual projects in several landscapes. In urban planning, despite the guarantee of institutional processes, the roles of subjects are attendant or dependant on the decision-makers. With political crises across Europe (especially regarding electoral and voting turnouts), urban planning is often perceived as a discipline that creates more problems than it is able to resolve. Planning, in its acceptation of “strategic”, uses a circular model as in the case of SEA with the implementation of the general model named DPSIR. In order to attain effectiveness at an institutional level, it requires a tight relationship with the traditional town plan, which is instead based on linear models—not recursive. We must not consider SEA merely an environmental compatibility procedure because it is a constructive path of politic consensus regarding a common future desirable and reachable.

Environmental analysis is included in the wider environmental assessment as a constitutive part, ever orientated to the qualification of the relationship with the traditional plan, in order to aim for its effective implementation. Therefore, without urban planning, SEA remains a simple study unable to have a direct bearing on the management of landscape transformations. Meanwhile, the plan, in order to enjoy real participation without being rhetoric-specious, has to be constructed from the beginning of the environmental assessment process. A better hypothesis is to simultaneously implement the planning of interventions linked to environmental risk (such as hydrogeological instability, earthquakes, and eruptions) to both SEA and the urban planning process. For these reasons, we ought to assume SEA as a base for the urban and the environmental risk plans. In fact, this set of plans for land usage risks and regulations supported by strategic dimensions (explicitly or exclusively according to competitiveness and impossible in the case of the traditional regulative plan) could represent innovative modalities of spatial planning instruments, determinant in order to manage and resolve numerous arising conflicts during the governing of landscape transformations. Risk, urban and extra-urban land uses and strategies could be kept together by SEA as a sustainable guarantee both of the rules and of the innovation projects of the state of the natural and anthropogenic ecosystem. Cutaia intends to convince the reader that urban planning and SEA are, in fact, inseparable.

The tight relationship between SEA and plans demonstrates that the value of the environmental dimension must necessary be related to other anthropogenic dimensions (including economic, cultural and social). This is important in order to avoid the possibility of planning choices, assuming a characteristic of technocracy or another bereft of democracy. The determinism of the environmental sciences cannot be automatically translated into political choices. Shifting focus from the plan to the evaluation, not pertaining to the general environmental assessment but merely to SEA regarding the different kinds of plans (included those of landscape), we have to distinguish some aspects of the evaluation procedure in respect of the planning discipline.

Evaluation can be interpreted as a kind of analysis able to include both the analytical/provisional plan dimension and that of its implementation in the landscape transformation process. Therefore, the evaluation procedure can be considered as a specific analytical field, a frame of construction of the relationship among agents, of the effects that take place on an institutional level and as evaluative process in respect of the plan. The evaluation can guarantee the relationship-based conditions and the contribution of the agents involved in the transformations decisively qualifying and validating the evaluation itself. From Cutaia's research, we can relieve the centrality of SEA institutionalisation, seen in different evaluative examples in the specific sectors of the landscape. In front of the landscape matter, intended as an object of planning activity, the peculiarity of evaluative judgements cannot merely be assumed in the descriptions of the plan alternatives. The reflection of the different values in play, from a strategic point of view, implicates a reconsideration of the logical trajectories that cannot be reduced to functional schematisations produced by deterministic approaches. In evaluations, values perceived by

individuals involved in the plan often take the field, forcing a decision between the alternatives on offer and the contradictions of the individual partisan positions. In this case, we cannot consider out-and-out alternatives, but all plausible actions, respecting the values of the singular agents involved. The research of Cutaia highlights the importance and complexity of the reflective and participative paths required by SEA for landscape transformation management, in spite of the continuing recourse regarding topics scientifically identified and argued.

The disciplinary—rather than scientific—dimension prevails although data and material used in the evaluation (in prevalent measures) and the planning (in variable measures) are determined; this is due to the fact that their instrumental use is limited to specific practices and politics, in which the uncertainty and the incremental natural of the tools implemented are determinant.

Cutaia started from the landscape in order to confer a constitutive sense to participative planning. From a disciplinary planning perspective, he had to align himself with the environmental evaluation, underlining the SEA procedure in reason of its intrinsic correlation to the planning action. Participation is the adhesive of multi-agent and multi-objective planning. The interests of the research did not focus on the participation procedure itself; through the reading of the study cases, it is a somewhat unavoidable result of a path concentrated on the analysis of planning potentiality surrounding landscape problems. Furthermore, the work marks a research perspective on the theoretical bases of landscape indicator construction. In respect of environmental indicators, these are differentiated by their connections with the relationship-based capability typical of the agents involved in the evaluation in the plan of the landscape.

The contribution of the evaluation is recognisable in the disciplinary way in which all scientific data and knowledge avoid false expectations. They unmask the purely rhetorical arguments while specifying dimensions of deterministic certainty in respect of communication fluxes and reflections, constantly demanded by the uncertainty dominating the sphere of the plan's political actions. The level of ambiguity could be notably increased in landscape planning, requiring recourse more frequent than the rhetoric-bereft participation in the planning process.

Cutaia displays sensitivity for the etic topic of the centrality of a human in relation to the social life of the community, deeply present not only in the planning field. The resident community not only asks for environmental sustainability, but also undertakes research into solutions to problems about equity distribution. Cutaia shows attentiveness towards matters of human dignity, which cannot be put in the second plan with respect to the deterministic reading of the exact sciences. Perhaps, there is consonance with a recent declaration by Jorge Mario Bergoglio in the European Parliament in Strasbourg: respecting nature also calls for the recognition that man himself is a fundamental part of it. Along with an environmental ecology, there is also need for human ecology consisting in respect for the person.

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## Foreword 2

Among the questions still open concerning the Strategic Environmental Assessment of urban plans, certainly one of the most complex is represented by the evaluation of their effects on the landscape. It presents complex profiles for two reasons: the first being ascribable to the historical dichotomy between urban planning on one hand and landscape on the other; the second connected to the prevalent aesthetic approach that characterises landscape studies, which makes the application of the quantitative methods often employed in Strategic Environmental Assessment objectively difficult.

Aside from these considerations, the work presented by Fabio Cutaia reaches, through close examination of the open questions and two study cases, a first systematisation of the matter. Although complete response to the different starting questions is not permitted, it constitutes an important contribution to the construction of practical protocols the Strategic Environmental Assessment must abide by when it finally attains operating speed. For these reasons, the work is a worthy aid for scholars and technicians interested in Strategic Environmental Assessment. Additionally, it can benefit every kind of operator in the landscape field because of its contents and characteristics, which include the reconstruction of the most recent normative frame and the new techniques implemented in the analysis and planning of the landscape.

The reasoning of Cutaia starts from an assumption: the introduction of the landscape dimension in the strategic evaluation can represent, following the clarification of particular ambiguities, the opportunity for the definitive convergence of urbanism with landscape—or rather, to use an expression employed in the previous research, to achieve an “armistice in the war of position” between urbanism and landscape. In fact, still today, in spite of numerous attempts at adhesion of urbanism issues—and more generally of planning—with those of landscape and regarding matters related to its interpretation and modification, we cannot affirm that a full integration between the two disciplines has occurred. Stiff sectorial laws remain within the legal procedures of the majority of European countries—above all in the Mediterranean area. Even less encouraging is a clear institutional separation of

competence between respective ministers appointed to landscape protection and urban planning due to different technical and cultural educations of the subjects working within the two areas. Since such integration difficulty exists, there is certainly a class of reason merely conceptual and philosophical, conducted to perceive the landscape in aesthetical and historical terms, scarcely concerning planning and protection.

Strategic Environmental Assessment, given that it forces town planners to ask questions of themselves regarding urban effects on the landscape, can represent a good opportunity for the correct integration between the two disciplines. Evaluating the effects of plans on the landscape requires overcoming the traditional dichotomy of urban methods along with those of landscape planning and therefore achieving unity—with the inclusion of administrative plans—of two perpetually divided concepts. This would finally allow the demise of the unacceptable subjectivity characterising the judgements of landscape compatibility, often expressed in an extremely monocratic form by the voices in force for protection.

The opportunity to integrate knowledge regarding “landscape state” within a structured knowledge of “environmental state” is a challenge that Strategic Environmental Assessment could meet. In order to obtain this, it is evidently necessary to introduce, in the tool chest of the urban and landscape planner spatial, instruments until now rarely or not at all used. It is necessary that urban planners overcome the rigidly bidimensional vision typical of rationalist plans and create tools able to manage territorial transformations with full awareness of their effects on the environment and landscape. Moreover, it is necessary that landscape planners move past the vision based on restrictive approaches in their landscape plans, instead paying attention to projecting the landscape. Cutaia, in his work, individuates the “landscape indicators” a tool allowing both the renovation of cognitive and operative equipment. The landscape indicators, although included in the wider system of environmental indicators, have their peculiar complexity, which derives from the difficulty in separating the different phenomena that generate transformations, as in the case of indicators related to environmental factors: air, water, soil, etc. Instead, the landscape study requires, as affirmed by Cutaia, a holistic approach that could allow consideration of the complexity of the system, in spite of its numerous individual components. It is the real reason motivating the definition of indicators characterised by a certain degree of significance and ease of implementation. Therefore, there is an urgent need to review the paradigms underpinning urban planning and landscape protection disciplines, with a view to how these can be unified or converged nowadays. This is the reason which remains the basis of this work: to observe the opportunities offered by the Strategic Environmental Assessment normative frame and its implementation in order to find a way of guaranteeing a synchronised integration of environment and landscape within planning tools.

Cutaia shows that this procedure can truly represent a bridge between these two worlds. However, together with these possibilities, we can also observe a wide set of problems concerning the way this procedure should produce selected evaluations in “perceptible” and “cultural” terms, as required by the European Landscape

Convention. The two study cases chosen by him show how we can complete in range of Strategic Environmental Assessment by the use of indicators, the most objective, shared and involving assessment that can communicate the cultural and perceptible dimension of landscape.

Regarding the structure of the work, a three-part consequence of the observations exists. The aim of the first is the building of a complete, cognitive framework on the issue, capable of defining research contexts: historic origins; establishment of legal orders at national and European levels; diversity of methods in environmental assessment; and “environmental indicators” at large as well as “landscape indicators” in particular. The study in this section introduces the exposition of two European study cases about the implementation of the Strategic Environmental Assessment procedure in two town plans: an Italian, that of Schio, and a Spanish one, that of Calonge. Through experiential observation, we are able to note the elements that have allowed urban planning practice to tie landscape, urbanism and the environment together, in accordance with the provisions of the European Landscape Convention and Directive 4/2004. In fact, after examining different experiences of interpretation and landscape assessment together with two case studies of environmental assessment, Cutaia observed the emergence of leanings for evaluating the effects of landscape planning on a local scale. In addition to the evaluation of some environmental elements (such as water, soil and air) through specific indicators, it became more difficult to evaluate the “landscape” component with its “cultural” aspect. In the third section, Cutaia suggests a method for landscape assessment in planning. The method developed is the result of observing the above-mentioned practical cases and of tracking the main recurring elements: landscape unit, indicators and social involvement. The latter represents a new challenge in the participative processes: it also requires the inclusion of people in the choice of the indicators, since a local community can provide a more subjective analysis, principally by way of perception and identification of places. Professionals usually conduct landscape analysis, but the European Landscape Convention insists on the importance of the involvement of both citizens and economic agents in landscape planning and assessment procedures upfront. Without claiming to complete this complex issue, the last chapter is devoted to a framework related to the relationship between landscape and people, according to what was found throughout this study, informing a new research project.

The topic in itself is not novel, and in recent years, many scholars have made efforts attempting to construct arrays of indicators able to work on the several acceptances of the term “landscape”. Cutaia examines with critical sense the most complete proposals submitted by different scholars, systematising and comparing them, finally reaching the conclusion that we are too far from the objective for the introduction of landscape indicators in the evaluative practice of urban plans, in terms of their codification in specific application protocols. To achieve this purpose, we need to bring about a complex work of theoretical–methodological construction of evaluative models, whose guidelines have been marked by Cutaia, starting from the examples developed in Italy and Spain in modern times.

The experiences analysed and related to the Catalan case, studied during a long period of research in Spain, significantly marked the work of the author, opening new and promising research perspectives. The reason is not that the Landscape Observatory of Catalonia (whose activity was studied by Cutaia from the inside) resolved the complex technical and administrative problems also observed in Spain and relating to the synchronic integration between the procedures and methods of the urban and landscape planning. It bases its activity on the awareness that only a synergic and multidisciplinary approach—able to collect the contributions of the different institutions, experts and citizens—can achieve a complete analysis and classification of the landscape and, finally, to define the boundaries of its transformability. Complying with this principle, since its constitution, the observatory represents a meeting point between the government of Catalonia, local authorities, universities, professional groups and Catalan society in general: a centre of ideas and action in relation to the landscape. This institution, apart from conducting activities from its own research and project office, sets other important objectives, well delineated in the chapter of this work related to the Catalan study case and here shortly summarised. The goals are as follows: to promote social awareness campaigns about the landscape, its evolution, functions and transformations; to divulgate studies, reports and methods about the landscape; to stimulate scientific and academic cooperation in the landscape field, as well as the comparison of works and experiences of specialists and experts from universities and cultural institutions; to follow European and international initiatives related to the landscape; to organise seminars, conferences, courses, exhibitions and events in general in order to promote information and education on the landscape; to create a documentation centre open to all citizens; and, in general, to become an amasser able to house all individuals interested in the landscape.

Beyond the results effectively achieved, is that from the Catalan Observatory is a fundamental teaching we have to pick up if we want to confer to the Strategic Environmental Assessment the role we previously declared. In fact, its contribution could facilitate the phase of interpretation and evaluation of the landscape, which, in its own conception, cannot exclude recourse to the participative process. The implementation of participative process hides, obviously, numerous traps. However, it appears as a unique modality able to reduce the risk of subjective interpretations of a “parameter” as empiric as the landscape. The integration of the participative tool into the strategic environmental assessment processes—if well managed by subjects able to select the interlocutors; isolate and subdivide problems; fix points; mediate local conflicts; and, finally, be associated with a multidisciplinary reading approach of physical and environmental components—really can represent a key factor in the management of territorial planning processes.

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# Acronyms

AAA	Italian Association of Environmental Analysts
AIES	Assessment of the implications
AP	Preliminary Draft for the Urban Plan
CEQ	Council for Environmental Quality
DMAH	Catalan Department of Environment and Housing
DPSIR	Driving forces, Pressures, State, Impacts, Responses
DR	Reference Document
DSIR	Driving forces, State, Impacts, Responses
EA	Environmental Assessment
EEA	European Environment Agency
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
ELC	European Landscape Convention
EMAS	Eco-Management and Audit Scheme
EPA	Environmental Protection Agency
ESPON	European Spatial Planning Observation Network
INSPIRE	Infrastructure for Spatial Information in the European Union
ISA	Catalan Report of Environmental Sustainability
ISAP	Preliminary Catalan Report of Environmental Sustainability
MA	Catalan Final Report of Environmental Sustainability
NEPA	National Environmental Policy Act
OECD	Organisation for Economic Cooperation and Development
OTAAs	Catalan Techniques Offices of Environmental Assessment
PAT	Territorial Spatial Plan
PATI	Inter-communal Spatial Plan
PDT	Regional Directive Plan
PI	Plan of the Interventions
POUM	Catalan Municipal Urban Plan
PPP	Policies, plans and programmes
PRC	Italian Municipal Urban Plan

PTP	Catalan Provincial Spatial Plan
SCI	Sites of Community Importance
SEA	Strategic Environmental Assessment
SPA	Special Protection Areas
UNCSD	United Nations Conference on Sustainable Development
UNEP	United Nations Environment Programme