IJPP

Decision traceability and the strategic choice approach: the potential for revision of the city plan

Roberto Picchianti Urban planner roberto.picchianti@gmail.com

KEYWORDS: strategic choice approach – traceability – structure plan – memory of planning – development plan – Grosseto – decision area

ABSTRACT

This article is placed into strategic choice planning studies (Friend, Jessop; 1969, 1977). This is an important trend in urban planning that has had many applications over the last 40 years, at both European and international levels.

The article presents a decision-making process method and an organisation of documentation that characterises the construction of

the old structure plan of Grosseto $(2006)^{1}$. Every stage of the Grosseto structure plan was documented, with 486 steps from the initial setup to the final approval. The process was traced on an easily accessible platform, which is documented and explained in the article².

This research can be summarised as follows: a town plan constructed using the strategic choice approach, accompanied by an appropriate traceable memory system, represents an advantage for implementing the plan and its use for a general review or complete reformulation.

Future developments of this approach (Scattoni, 2018) are based on this decision traceability process, but they turn the platform into a system that maintains all features with low software requirements and maintenance costs. In this application, userscan access a unique database.

This research aims to verify two aspects of urban planning in Italy that are not always adequately addressed and documented. The first concerns the coherence between strategic choices and the implementation document. In fact, for some years, urban planning in most regional planning laws distinguishes two phases: the structure plan and the operational plan (piano operativo o regolamentourbanistico).³ It is assumed that the availability of a

¹ See Par. 2.1 The Grosseto structure plan

See Par. 2.1.1 Database PAULUS (http://paulus.arc.uniroma1.it/)

In 2014, the Tuscany region modified the Regional Planning Act no. 65 of 2014 - L.R. n. 65/2014). In this circumstance, they changed the name of operational plan from Regolamento Urbanistico to Piano Operativo. This

decision-making database can serve that purpose. The second aim is to demonstrate that the traceability of the plan's decision-making process can be of the utmost utility for updating the plan itself.⁴ After a decade of the Grosseto structure plan's implementation, the local government was called on to revise it. Through interviews for this research with the main actors of the two urban planning tools, a first evaluation can be made.

IJPP - Italian Journal of Planning Practice Vol. IX, issue 1 - 2019

4

was to make the name uniform with other regions' planning legislations. The features of the development plans are the same. The new Planning Act of Tuscany (L.R. 65/2014) requires that the same act be applied to municipalities that have a structure plan and an operational plan approved within three years of the end of the operational plan (Article n. 228). This article orders the upgrade of the planning tools to the new legislation.

INTRODUCTION

The method of this research is based on the strategic choice approach, which has had numerous applications even if few were in Italy (Giangrande, 2002).

The strategic choice approach is a definition model already known in the 1960s by the works of the Institute for Operational Research (IOR) (1963), continued and illustrated by the works of Friend and Jessop (1969) and Friend and Hickling (1987).

This planning approach is based on managing the uncertainties that surround the decision to be addressed. The method consists of organising the problems in order to configure a strategy of the opportunities to respond (Lombardi, 2018).

The structure of the problems is based on the incremental approach, which allows for tracking and knowing the decision-making process.

Therefore, the strategic choice approach proves to be adept at defining town plans that have traceable and transparent decisions.

As mentioned, the strategic choice approach was not widespread in Italy, although it was known since 1974 (Baldeschi, Scattoni, 1974). Some applications are dated to the 1990s through "*Laboratori*", which was developed in Rome (Mortola, Giangrande, 2005).

Grosseto's structure plan (*piano strutturale*) (Comune di Grosseto, 2004) represents the most significant case of such an application. The plan's implementation does not seem to have used the full potential of the strategic choice approach to monitor and restructure the plan in its

application, especially relating problems and later changes in the implementation planning phase.

The Grosseto plan is a favourable ground for verifying the opportunities the strategic choice approach offers for confirming the execution of a town plan and the inputs it offers for its review (Scattoni, Falco, 2011). In fact, the research that has accompanied the latest period of the Grosseto structure plan (Scattoni, Tomassoni, 2007) has developed a monitoring technique called the Planning Analysis of Urban Linkages within Urban Systems (PAULUS), which allows for tracing the path of the plan through using both the official documentation (municipal documentation, provincial and regional policy, etc.) and evidence arising from the external debate (press, policy documents, etc.) (Scattoni, 2018).

The article is structured using four principal parts. In the first part, the paper outlines the state of the Grosseto plan. The second part relates to the method and documentation. Then, the findings are presented and, finally, the paper presents a discussion of the results and possible research developments.

1. The strategic choice model

The strategic choice approach (Friend, Jessop; 1969, 1977) is a planning model that views the decision-making process as a continuous dialogue between the two systems: one called the government and the other the community (Scattoni, 2018).

The government system is a set of elements that interact to reach a decision. Similarly, the community system communicates internally and with the government. Not always is there a clear separation between the two systems.

The situations the community finds uncomfortable are communicated to the government. The government system examines the problem and proposes an answer with specific actions. It may propose a single action or multiple alternatives (Scattoni, 2018).

Sometimes, the solutions are not simple or immediate. In fact, sometimes, the solution to a problem can produce other problems, called "uncertainties". "The operations for the construction of the framework are strategic choice made from a progressive identification of problems. The definition of the options proceeds from the simplest, [which] implies no action, to the more complex one" (Lombardi, 2018).

The method highlights the uncertainties and the conflicts by a transparent and traceble decision-making process. In a complex background, as with urban planning, the strategic choice approach simplifies the knowledge and the identification of the problems.

Identifying more alternative solutions and sometimes conflicting between them represents the more important criticism of the approach because they conflict with the severe regulations of the traditional urban plan.

The dynamism of the strategic choice approach against the severe regulations of the law represents great difficulty of the method itself.

For the attackers, criticism is the risk of succumbing to technical rigidity and a non-participative process that is unable to manage physical urban transformations (Giangrande 2007).

The interactive approach of this method represents contact with the possibilities and opportunities derived from the informatics (Lombardi, 2018).

2. <u>The Grosseto planning state</u>

2.1. The Grosseto structure plan

Only in the structure plan of Grosseto does the strategic choice approach find application.

Grosseto is an Italian municipality, the chief town of the province, in the southeast of the Tuscany.

The city has been subjected to a significant population growth in the last 150 years, increasing from about 4,500 inhabitants after the unification of Italy to about 82,000 inhabitants today.

From an urban point of view, the city has constantly planned its development over the years (Nencioni, 2007). The territory is heterogeneous and extensive, which includes hilly and coastal areas, with strong natural and poorly urbanised agricultural areas.

The town planning in Tuscany develops on two levels. The first tool of local planning is the structure plan.

This tool is a municipal strategic plan aimed at identifying the principles and guidelines that will then be the basis for drafting the subsequent documents (the operational plan and building regulations).

The Grosseto structure plan was written by the municipal office of urban planning with the help of the Department of Territorial and Urban Planning (DIPTU) of Sapienza University of Rome. The plan was drafted from December 2000 (nomination) to April 2006 (approval). The drafting method used has been the incrementalist approach and the strategic choice approach (Friend, Jessop 1969; 1977). General criteria were sustainability, transparency and participation, the principle of accountability, and the simplicity of management (Comune di Grosseto, 2004).

The tools for guaranteeing the above principles were the Agenda 21 Forum, Sportello di Piano, and internet communication.⁵

The logic of the plan was to derive the choices directly from real problems identified by the population and made explicit through the participation channels. The result was to build a bottom-up plan.

Simultaneously, the plan results were "open" to different solutions derived from the different options to problems.

In the operational phase, the plan was based on the decision areas (aree di decisione), the city's problems identified by the citizens, which have found

5

The Agenda 21 Forum is a participative process where the stakeholders work out the themes and the territorial resources based on the sustainable development approach. The forum consented to form and develop the planning process. In Grosseto's structure plan, the Agenda 21 Forum analysed the general problems, mobility, problems of the coast, residential problems, industrial areas, water system problems, and big infrastructure into 18 thematic forums.

Sportello di Piano is a transparency method to communicate the instances of a stakeholder to the municipality. The Structure Plan of Grosseto had 826 requests from private citizens. The requests include from general ideas for planning to questions about specific properties. Some of these were accepted and others were rejected. All had a reply. It was active from September 2000 to January 2003.

The Agenda 21 Forum expressed principally the general instances while the Sportello di Piano expressed private instances.

The Grosseto municipality reported all acts on the official website. At the same time, on the website, it announced the calendar of all forums and communicated with the population.

one or more solutions through the intervention options. All areas are interrelated. Fifty-six decision areas were identified across the entire municipal territory.

Various types of decision areas were found and, from those, a general character and territorial value (for example, general road system, open territory, etc.) until a specific phenomenon (for example, sinkhole) was determined.

On indication of the Regional Planning Act, the structure plan divides the municipal territory into two big areas: those relating to agricultural and rural areas (areas with prevailing agricultural function and areas with exclusive agricultural function) and urban areas (homogeneous territorial elementary unit - UTOE). The plans can introduce the transformation and implementation of residential areas into urban areas. The other areas are more protected from these transformations.

The structure plan singled out 12 UTOEs. UTOE n.1 (Grosseto) was also divided into different areas to better determine and specify actions so it is more effective. The project's idea was to define in detail Grosseto's urban area because most transformations were concentrated in Grosseto. Figure 2 "Table n. P6" illustrates the UTOE list and quantifies the transformations of

the structure plan.

Major themes were identified and divided into specific objectives: traffic (slow city, decrease of vehicular traffic, border roads, park and ride, increased bicycle mobility, etc.), settlements (balance between the residential growth in the capital and villages, decrease in coastal settlements, re-use of heritage buildings, etc.), infrastructure (airport, marina, hospital, logistic hub, waste, urban parks, etc.), tourism (coastal tourism, spa tourism, rural tourism, etc.), rural territory (protection of the

local characters, territorial parks, rural tourism, etc.), regulatory reform (historical centres, consolidated urban areas), urban trade, industrial sites, urban equalisation, and the system of the environment (sinkholes, coastal dynamic, salinity, etc.).

These themes and specific objectives were objects of discussion in the participation forums and fundamentals for identifying decision areas.

N° 9 FERROVIA			
(Area di decisione D.C.C. n°89 15.10.2002)			
PROBLEMA La linea ferroviaria divide la città in due parti con problemi di collegamento. Il rilevato ferroviario è elemento di pericolo per quanto attiene il rischio idraulico rappresentando barriera al deflusso delle acque. Vi è inoltre la presenza in area baricentrica dello Scalo merci ormai in disuso per problemi di accessibilità per i mezzi pesanti.			
 OPZIONI Situazione attuale Soluzione Prusst Interramento della linea ferroviaria Spostamento dello Scalo merci e di gran parte delle funzioni ospitate nell'area circostante, lato Barbanella, verso Nord (a titolo esemplificativo l'area destinata dal PRG al mercato annonario). Come 4 con realizzazione a Braccagni Realizzazione delle previsioni del protocollo di intesa Comune/Metropolis con realizzazione dell sovrappasso Via Cavalcanti-Viale Della Pace Come 6 con aggiunta del potenziamento degli attuali sottopassi del Ponte dei Macelli, Ponte stadio, Piazza La Marmora e sovrappasso Viale Matteotti - Via Sauro. 			
ATTORI Comune, FF.SS.			
AREE RELAZIONATE Viabilità generale, Viabilità capoluogo, Consorzio Agrario.			
APPROFONDIMENTI Analisi idrogeologica, effetti sul sistema dei trasporti, valutazione economica, effetti ambientali.			

Figure 1 - Decisional area form In fact, two of the general criteria for defining the structure plan were identified in the participation in and transparency of decisions. These main objectives were set by the Tuscany Regional Act n. 5/95 and confirmed by the subsequent changes and integrations (Tuscany Regional Act n. 1/2005 and Tuscany Regional Act n. 65/2014).

The decision traceability was added into the decision-making process as another basic criterion. Traceability is a method of precisely organising the decision-making process of every single change in the process itself.

In Grosseto's structure plan, every decision or simple request for change was registered and made public through establishing the Sportello di Piano.

The documentation of the Sportello di Piano was made available on the municipality's website.

All the planning work was organised with methods and settings to easily reconstruct the decision-making process leading to a decision.

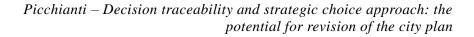
To this purpose, an open-source software platform⁶ was designed and created, which could contain all the elements of the decision-making process, including the administration documents, the press, the documents of the participation, and the project of the plan, which are all part of the decision-making process.

On the software platform is not only visible the process in its final form but also a specific moment concerning a specific date, through a chronological taskbar of the reviews. The platform is aimed at the building a "memory of the planning process" (Scattoni, Tomassoni, 2007).

In fact, during the last two years of collaboration with the Grosseto municipality, those responsible for the plan have devised a storage method that supports planning transparency. This method devised was not developed during the plan's preparation but only subsequently.

See Par. 2.1.1 Database PAULUS

IJPP – Italian Journal of Planning Practice Vol. IX, issue 1 - 2019



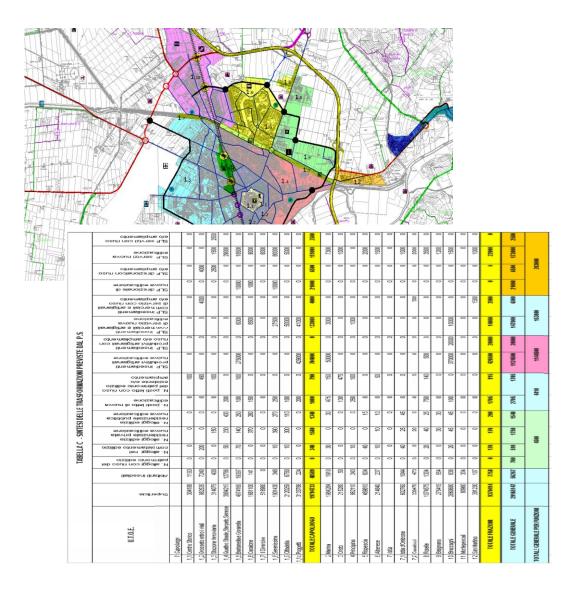


Figure 2 - Table P6bis - Grosseto structure plan - UTOEs table

2.1.1 PAULUS Database

The documentation and monitoring system designed in the last two years of the editing of the structure plan is the PAULUS database. However, PAULUS was developed and was drawn up subsequent to the plan itself. In fact, in constructing the structure plan in a traceable way, this has allowed for tracking most, if not all, of the changes. Clearly, if the process was created simultaneously with the plan being edited, many more changes and details could be tracked (Scattoni, Tomassoni, 2007).

In a previous research conducted in 2006, during a four-month internship at the Grosseto municipal office of urban planning an undergraduate analysed the decision-making process of Grosseto's structure plan in a dissertation (Picchianti, 2007).

This research was the basis for further research that developed the PAULUS database. Many of the materials were derived from official documents from the municipality and were integrated with other archives (for example, the press database provided by the Province of Grosseto).

The principles behind the informatics tool are those of the planning method: traceability, transparency, and accountability.

Based on these principles, the decision areas developed in the decisionmaking process were reconstructed.

A difficulty of the research was reconstructing most of the process after completing the plan's development phase. However, the results show that 486 changes and revisions were made compared to the five steps that can be identified as obligatory, as steps laid down by Planning Act 1150 of 1942.

These institutional steps are the only times when the audience knows the work status of a plan. Applying the traceability principle to the plan allows for showing many small changes that would normally not be seen.

In fact, the dissertation (Picchianti, 2006) showed how the planning tools are generally constructed by many steps in addition to these fundamental steps established by the Act: mandate, adoption, observation, counterargument, and approval. In fact, there are many other "steps", equally fundamental, comprising the decision-making process. Traces of these steps are found only in their final versions. However, in a traceable plan, there is the possibility of identifying the person who proposed the changes or the requests.

The PAULUS system presents the interface of the structure of the decision areas already identified in the plan. These areas were largely identified or modified by the citizens of Grosseto through the participation forums.

The problems identified by the citizens were summarised and described as decision areas. The potentials options for solutions and interventions were added to these problems as the actors that intervene to influence a specific problem and, finally, the other decision-linked areas. The decision areas represent a large body of information about the expectations, needs, and emergencies that were noticed by citizens and which were brought to the attention of the city's administration.

The opportunity created by a multimedia tool is that any type of attachment or document that affects the decision area can be loaded in digital format (institutional acts, newspaper articles, plan elements).

The software consists of a timing column containing all revisions that have affected a specific decision area. These revisions correspond to a snapshot of the decision area at that precise moment.

62

The revisions correspond to any act or event that produced a change in the decision-making process and in the elements that compose the decision areas.

The research can identify how many decisions defined in the structure plan were found in the next planning document—the operational plan.

The "traceable" structural plan should facilitate the research and the verification of the research purpose.

In fact, it can easily seem as though the two planning levels sometimes appear to be unrelated, creating further difficulty and making it "impossible" to re-edit the decisions of the previous plan. The absence of the decision traceability lessens the possibility of interaction between tools, including the timing of approvals (Scattoni, Falco 2011).

Therefore, the research is focused on evaluating the re-use of the database of the previous plan for a new plan. The first advantage is having a picture of the planning problems of the previous plan. The second advantage is the fast analysis of the strategic choices made, but with a good structure of the actuation state.

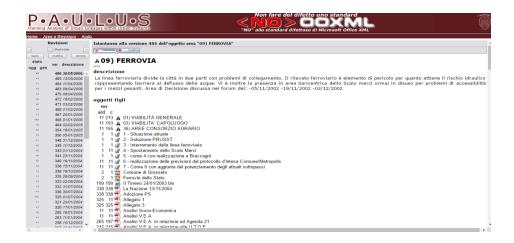


Figure 3 - Web-site PAULUS picture (http://paulus.arc.uniroma1.it/)

2.2 The operational plan

In the Tuscany Planning Act, the operational plan is the operative tool of municipal planning. Also referred to as "the mayor's plan", it has five years of validity, determines private property, and indicates land use and zoning. Grosseto's operational plan was approved in 2013. In this phase, only the first part was approved. A subsequent part was approved at the end of 2015, thus completing the approval of the entire tool.

Previously, two variants to the structure plan (2011 and 2015) were also approved, as they were necessary to comply with changes in the Regional Planning Act.

The operational plan was divided into two major parts: the first part related to issues of the maintenance of the consolidated areas and the second related to the territory transformation.

This second part is the most relevant for our research. This provides the concrete answer to some of the expectations and to problems found in the decision areas.

About 190 planning projects for different types of operations (transformation, regeneration, recovery) were drawn on the municipal territory. Among other details, these tables summarise the urban parameters, the urban standards, etc.

The plan identifies some guiding themes for its definition: the decline in the local sector's industrial and handicraft production, the safeguard and enhancement of agro-environmental and landscape heritage, the new relevance of the theme of dwellings, particularly of social housing, and the centrality of the public administration as a response to the questions of citizenship of a diverse and complex society (Comune di Grosseto, 2011).

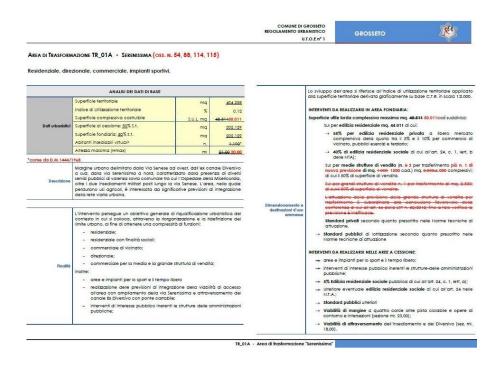


Figure 4 - Planning project table example of the development plan – Transformation area no. Tr01A "Serenissima"

2 The method of research

The research examined two aspects of the strategic choice approach. The first was the coherence between the strategic choices and the operational plan. The second was to demonstrate that a plan built by the strategic choice approach and the traceability of the decision-making process can be useful for updating the plan itself.

The Tuscany Regional Planning Act no. 65/2014 requires municipalities to update the planning instruments in three years⁷. Therefore, the Grosseto municipality must submit a new plan.

2.1 The procedure of analysing "internal coherence"

Two ways were used to accomplish the first aim of this research: the first was to interview some of the actors who participated in editing the analysed tools and the second was an analysis of the documentation, regulations, and the same decisions.

The interviews identified areas requiring further examination or provided reflections and examples listed in paragraph 3.1.

Interviews were conducted using a semi-structured method, without a preventive definition, with the idea that the person being interviewed would indicate the elements that are continuous between the two tools, the differences and their possible reasons, inspirations and insights for further research, and a specific comparative analysis of the planning tools.

The second procedure is comparing the introductory reports and policies of the structure plan with the papers of the operational plan.

Three archives were analysed: the website PAULUS regarding the structure plan, the institutional website of the Grosseto municipality for the variants of the structure plan and the operational plan and, finally, the press archive.

PAULUS contains the elements tracked in the structure plan at the end of the approval process (2006). From here, it was possible to analyse the state of prior work and the starting point from which the operational plan was edited.

See 2

IJPP - Italian Journal of Planning Practice Vol. IX, issue 1 - 2019

The general report of 2004 was extrapolated, stating the general principles and the implementing policies approved in 2006.

The municipality website was viewed and the most significant papers identified. These consisted of the policies laid down by the two variants of the structure plan (2011 and 2015) and the reports and policies arising from the two approvals of the operational plan. In fact, this plan was adopted and approved in two steps.

The main analysis was conducted in relation to the schedule of the interventions set by the operational plan. The transformation invention cards were identified through an identification code⁸ (for example Tr03A, Tr03B, etc...).

The last archive consulted was that relative of the local press. Up until the 3^{rd} of July, 2015, this service was guaranteed by the Province of Grosseto through the institutional website. After that date, the service was deleted. While not guaranteeing a comprehensive view of the deficiency of analysing the latest events (for example, the second variant of the structure plan and the complete approval of the operational plan), the press archive provides the ability to analyse much of the tools and the public debate.

2.2 The benefit of using the strategic choice approach to updating the plan: the procedure of the research

The second aim of this research was analysed only through interviews.

8

The operational plan has about 190 transformations on its schedule. These are organised in a list based on type of transformation (construction, redevelopment, restoration, etc.). Each type of transformation is classified based on an identification code (for example, construction is Tr, redevelopment is Rq, restoration is Rc) and a sequential number.

The interview method gave access to the technical and political experience of the significant actors. The structure of the interviews was a free debate with some simple questions.

The interviews were conducted with participating actors who edited the analysed planning tools. During the period of the research (May 2016 to June 2017), six actors⁹ who played a role in the editing of the tools were interviewed.

After a fast view of the strategic choice approach and the final decision areas of the structure plan, the interviewees were questioned on whether traceability is important in the planning process and if it is important to have a method that views that process.

Afterwards, the 56 decision areas of Grosseto's structure plan were viewed. The interviewees showed which areas were investigated, resolved, or considered in the decision-making process of the operational plan.

Finally, the interviewees showed which areas should be considered in a new plan-making process.

3 Results

The results of the research are summarised in two sections that analyse the research's two aims.

The first analyses the traceability as a coherence method into of investigating the decision-making process of the plans. The interviews are used to show the general considerations and to find some specific examples.

⁹ The interviewees were Enzo Turbanti (Assessor of town planning 1997-2006), Marco De Bianchi (Director of the town planning office), Elisabetta Frati, Silvia Tedeschi, Carlo Marcoaldi (Town planning office), Pietro Pettini (Director of the province's town planning office)

Additionally, the examples show how traceability helps to verify and monitor a plan and how it is useful for the future editing of a new tool. In the second section, the interviews show how the traceability and the

strategic choice approach, applied to the decision areas, can be useful in updating the planning instruments.

Finally, the decision areas, after the approval of the operational plan, were found and analysed. The analysis of the various options was examined and compared to how established in the structure plan. Sometimes, the solutions to a problem were changed in the new decision-making process of the operational plan. That happened because uncertainties modified the perception of the problem (see par 1).

3.1 Traceability as a "coherence method"

The interviews were principally used to show the context of this research.

The respondents, some of whom currently work in the municipality, did not express judgement of the planning instruments, as in the way the research does, but expressed some interesting considerations for defining some areas and results of the research.

These considerations were used to show examples in the operational plan and the structure plan for comparative analysis and to demonstrate how a traceability principle can help to rebuild the planning instruments. Consequently, that principle could be used to help draw a new planning instrument.

The first element to be considered, according to all respondents, was the length of time spent between the first tool and the second (nine years).

Certainly, this affected the determinations and the connections between the two tools.

Another important element is that the structure plan has been changed by the operational plan. In fact, before adopting the operational plan, a new structure plan was adopted and approved.

However, the changes regarded mainly some aspects that did not influence the object of the research to verify the coherence between the structure plan and the operational plan by a traceable decision-making process. In fact, as the examples will show, it is possible to underline how is important the traceability of the decision to rebuild the decision itself.

Changes were made to adapt the structure plan to the Regional Planning Act (L.R. 1/05). Indeed, the structure plan was produced by the Tuscany Planning Act n. 5/95. However, these changes has ended up removing the vision of the structure plan that was well defined both in regulatory aspects and cartography. Therefore, a tool that would grant the operational plan the smallest interpretability possible.

In the previous legislation, the structure plan was seen as a "contract" between the region, the province, and the municipality to build, in a clear manner, relations and responsibility between the institutions.

This vision was disrupted by the L.R. 1/05, making the subsequent operations less "transparent", in part allowing political groups to make the choices without too many technical constraints.

The structure plan was constructed so the technical issues were so prominent that political decisions were confined to a few areas.

An example of this is the case of the Elementary Homogeneous Territorial Units (UTOEs) that divide the municipal territory into urban homogeneous areas with common characteristics. The structure plan had identified 12

71

UTOEs. One of those, Grosseto, was divided in 10 sub-UTOEs. Bringing all of Grosseto's sub-UTOEs into a single UTOE is an object of variation of the structure plan.

These homogeneous areas were used to identify the different parts of the city and the functions of some areas, definitive objectives, strategies, and the maximum dimensioning admissible. This would have made the definition of the operational plan easier. The drawing of the UTOEs (and sub-UTOEs) in a precise manner, or defining the borders between urban and extra-urban areas, would have been the basis for detailing the operational plan.

The change that had removed the sub-UTOEs allowed for the division of the budget of possible transformations not into the ten areas but into more extensive areas, permitting the transfer of functions and the volumes from one city area to another. For example, for the expansion area called "Serenissima", some buildings' dimensions were transferred. The region blocked this intervention because it was planned in one single operational plan. Following regional intervention, in that area, only the implementation of partial measures was considered (table of transformation called Tr01A: the territorial area changed from to about 800,000 square miles to about 400,000 square miles). The quantity of public and private residential buildings indicated in the structure plan (45% public and 55% private), the number of commercial activities to transfer to this area, and the public space and public infrastructures were identified.

The sub-UTOEs could be used to understand and to quantify the various transformations and the various operational plans. In fact, the operational plan was divided into two major parts: the discipline and the regulations of

the existing buildings (without a deadline of validity) and the transformations (with five years of efficiency).

Other principles could also be deduced from the observations and contributions of the province, as both the structure plan and the operational plan have to conform to the provincial tool of urban planning. Most of these observations have been made on open and rural territories.

In fact, for example, in the past few years, the Grosseto municipality has released numerous building permits to realise tourist hotel residences that were turned into domestic housing over time. The tourist destination was in total contrast to the destination of the land derived from the superordinate planning tools. In fact, the operational plan conceded the transformation of these activities into residences through specific rules, thus granting an amnesty. This was blocked because it was in conflict with the provincial planning tool (Piano Territoriale di Coordinamento - PTC) (and, therefore, with the structure plan) because the transformation of existing structures into houses in the extra-urban territory was not permitted. This was possible only in the UTOEs and in areas with a prevailing agricultural function, in accordance with the provisions of the superordinate planning and the structure plan. In fact, a strategy of the structure plan was to block any transformation in agricultural territory.

Only the farmers could create structures and buildings because their actions were aimed at the defence of the territory and their activities. The operational plan confirms these possibilities by only re-using the existing heritage buildings.

In addition to this general analysis, the research focused on identifying the elements that permit demonstrating how the traceability and the strategic choice approach represents an advantage to determine "inside coherence".

Particularly, the database PAULUS allowed for tracking the papers developing during the structure plan process.

The comparative analysis of the papers extracted from PAULUS and the final papers of the operational plan produced examples derived from the considerations and suggestions indicated by the interviews.

Analysis of examples of forecasts was conducted for the definition and demonstration of the thesis.

The examples considered were totally different in representing how traceability can be used. The cases consist of the five examples, which only represent the method and the opportunity arising from the construction of a traceable decision-making process.

The first is a transformation presented during the structure plan, which loses track of the approval stage, but is approved as a transformation project by the operational plan (see par. 3.1.1).

Another case is the definition of a verifiable and inserted operation in the structure plan through the contribution of the then minority in the town council. Today, the forecast is included in the operational plan (see par. 3.1.2.).

Another example arises from a proposal received from a private citizen. The proposal was submitted and analysed by the Sportello di Piano and is now in the operational plan (see par. 3.1.3.).

The fourth case analysed relates to some provisions that were respected in the quantity but not in the location (see par. 3.1.4.).

The last case concerns a transformation area that contains a provision that follows an objective and an indication of the structure plan but contradicts another (see par. 3.1.5.).

3.1.1. The "kart track" example

Inside the operational plan, it is possible to find a table of transformation for the realisation of a kart track. The track is located in a village (Roselle).

With the analysis of a press review, it was possible to reconstruct the evolution of the decision-making process. Contrary to what is indicated now, the previous location was in a place called Squartapaglia¹⁰. The decision was not only found in the operational plan but emerged from a proposal made to the structure plan. In fact, on March 6, 2001, a contribution was presented for its realisation to the Sportello di Piano¹¹. Analysing the press review, you can see this proposal was the subject of an interview with a municipal assessor of Grosseto on the 1st of November 2002.

The contribution to the structure plan was not accepted.

Now, you find this transformation in the operational plan. The location of the intervention is in open territory near Roselle. Obviously, this means the proposal was again brought into the debate for the new planning tool and considered suitable.

3.1.2. The "border road" example

A particular decision-making process was followed for defining the border road in the south of the main city.

This solution was produced and included in the decision-making process of the structure plan during the Agenda 21 Forum. During the forum dedicated

Newspaper - Corriere di Maremma – day 11th December 2004
 Reference register 28126 – previous number 256/d

IJPP – Italian Journal of Planning Practice Vol. IX, issue 1 - 2019

to mobility, at the city theatre on the 19th of November 2002, a specific proposal was delivered for realising a Grosseto border road project. The new road planned to connect the different strategic points of Grosseto that were marginal to the centre. In this way, according to the proponents, the traffic directed to the city centre could find a way out on the three ring roads. During the forum, the same project ideas, already delivered to the Sportello di Piano¹², were illustrated here by the proposer.

A few months later, the same proposals for a border road were announced by the press in the three major local newspapers¹³, to the end of the process of Agenda 21.

The same information was the subject of an evaluation and inserted within the cognitive framework of the decision areas between the options of "viabilità del capoluogo" (road of the main city). The same options were found in the sub-UTOEs and in the plan rules.

In this case, the operational plan supported that the same proposals were to be regarded as works as to realise for the private in exchange for building opportunities. In fact, many transformation areas in the city (for example, the transformation tables Tr01A, Tr01E, Tr02A, Tr02G, and Tr06A) have these interventions to be realised in areas to be transferred later by the administration.

3.1.3 The "golf course" example

Another illustrative case is that of the proposed construction of a golf course. This proposal was put forward by an individual at the Sportello di

¹² Proposal n. 646 on 13th November 2002 – protocol 113946

¹³ Newspapers - Il Tirreno and Corriere di Maremma on the 15th of March 2003 and La Nazione on the 16th of March 2003

Piano. Since its inception¹⁴, it enquired about the possibility of constructing a golf course within the open territory, near the UTOE of Grosseto.

About two years later, the then assessor for sport became a promoter of this proposal and mentioned it in a newspaper article¹⁵ along with other interventions related to the sport. The interview was followed by a meeting with the provincial chairman of Coni.

The further development of this affair was given by another interview with another assessor by the Corriere di Maremma on September 23rd, 2003. In the interview, he announced the location of the intervention (in a place called Alberino) in the park of the Ombrone River. This consideration was reaffirmed a year later, on the same terms, in the Corriere di Maremma on July 2, 2004.

Into the rules relating to the sub-UTOE 1.4 in the structure plan, there was not this specific intervention.

The operational plan approved the intervention in the same area previously indicated (Trs16A).

3.1.4 The "camper parking area" example

Camper parking areas were indicated by the structure plan and identified principally inside or in areas near the UTOE.

In fact, from the beginning of the process, inquiries were received in the Sportello di Piano from private individuals and associations for the

¹⁵ Newspaper - La Nazione - on 1st November 2002

¹⁴ Proposal n. 219 on 26th October 2000

strengthening of these structures across the entire municipal territory¹⁶. These proposals related to general characteristics and principally the coastal areas.

During the Agenda 21 Forum, further proposals were put forward, as well as different locations of interventions in other contexts, such as Roselle¹⁷. Other interventions during the forums have focused on the creation of conventions with the private managers of camper parking areas in which were reported the obligation to use these areas during emergency events (on the 31st of October 2002). The clause was accepted by representatives of the municipality at the forum.

On November 19, 2002, the need to realise these interventions outside of the pine-forest areas of Marina di Grosseto, Principina a Mare, and Fiumara was also debated. At the same time, the camper parking areas needed to be connected by cycling tracks.

The structure plan, therefore, defined the possibility of realising camper parking areas in almost all the UTOEs (Marina di Grosseto, il Cristo, Alberese, Roselle), always near the border of the same UTOE.

Conversely, the press review did not debate the topic much. On July 2, 2004, an agreement was announced with the owners of land to sell the parking land to service the archaeological area of Roselle.

All this produced five areas of transformation (Tr01A, Tr03B, Trs06TA, Trs07TA, and Trs08TA).

Proposal n. 262 on the 4th of April 2001, proposal n. 392 on 24th of July 2011, proposal n. 487 on 30th of August 2001, proposal n. 612 on 4th of November 2002

¹⁷ Private intervention on October 29th, 2002 and October 31st, 2002

These transformation areas fit into three ambits (Marina di Grosseto, Alberese, and Roselle). The three interventions were concentrated on the coast, in Marina di Grosseto, outside the pine-forest areas, but not near UTOEs, except for one. The other two were located in two villages, one: near Alberese and another in the open territory outside Roselle.

3.1.5. The "buildings outside urban areas" example

The structure plan provided local craft activities of the area expansion in the area called Dirudino. The expansion must be made in a direction perpendicular to the coast, with the pine-forest area on the border to mitigate the view of the area. The operational plan confirms this setting through in the area Tr03B.

The structure plan incorporated the rule of the provincial planning tool (Piano Territoriale di Coordinamento - PTC) that has considered the road (Collacchie road) as a boundary between the urban area of Marina di Grosseto and the exclusive agricultural function territory. The rule did not allow a camper parking area outside of that border. In this area, this forecast was partly contradicted in the provision Tr03B because, outside of that border, there is also a camper parking area. Tr01TA contradicts the rule in its entirety.

3.2. Traceability and strategic choice approach as "updating method" <u>- the decision areas</u>

The second part of the research demonstrated how the traceability and the strategic choice approach were useful for reviewing the planning tools.

To do this, the principal actors¹⁸ in the decision-making process who participated in editing the planning instruments were interviewed. These interviews served to reveal whether a method of planning based on planning memory is useful for updating the planning instruments.

In this section, the declarations of the interviewees are summarised. When somebody had a particular opinion, different from the others, this is indicated.

All the interviewees believed planning memory is useful for updating the subsequent planning instruments but were not in accord with how it is should be used, in particular, in relation to the decision areas method. In fact, the politicians had more optimistic opinions and believed the method could be used always in the plan-making process (structure plan and operational plan). In contrast, the technical interviewees think the planning memory is only useful for the strategic plan, after an operative verification. In fact, during the operational plan creation process, the method using the decision areas can influence participation in the decision, sometimes in relation also to a minimal or punctual decision.

Maybe these different views are part of the role. The technical interviewees were more prudent because they practically involved the creation process of the planning instruments.

After this introduction on the traceability and the strategic choice

¹⁸ See 6

IJPP – Italian Journal of Planning Practice Vol. IX, issue 1 - 2019

approach, the interviews developed and analysed the decision areas. They dated if and how the planning problems were considered in the planning process and in the hypothetical future planning process. The list of decision areas was shown to the interviewees. The research recorded the statements of the interviewees.

First, it is possible to divide the decision areas into two types: general problems¹⁹ and specific problems.

For general problems, the interviewees affirm these decision areas are generally always open to updating or reviews because they are not confronted in the first operational plan.

Generally, the general themes depend on other institutions that have not responded to these problems. This may be because there was little interest or more probably because there was no political interest at the local, regional, or state level to resolve the issue.

Currently, for the review of a new town plan, all of these decision areas must be changed into the definitions of the problems and solutions. The solutions (options), especially, must be transformed to respond to the new requirements of the town.

Specific problems are varied and include different sub-types of problems.

Although relating to a few of the actors, these types of problems are

This decisional areas were: General Ways (Viabilità Generale – n.1), Railways (Ferrovia – n. 9), Airport (Aeroport – n. 21), canal (Diversivo – n. 22). These decision areas are in Grosseto territory but are controlled by state agencies (highway companies, state railways, Ministry of Defence, etc...)

resolved in a minimus part and the solutions adopted are almost always simpler or derived from the residual planning. Generally, this is possible because the economic crisis burdened on the provision more notably. Independently, these provisions were derived from the municipality or the will of private individuals.

The provisions for the residential areas were especially hit by the economic crisis, both in Grosseto and other municipality's little towns. In particular, the decision area n. 6 – Marina di Grosseto, Il Cristo, a little town on the coast, did not have a definition and all options were not considered. In a potential new town plan, this decision area must be considered, perhaps by a total redefinition of the options for action. This is necessary also in relation to the new Regional Planning Act because it has introduced the concept of "no soil use" and the new transformations will probably become more difficult than the re-use of buildings and areas.

In addition, the provisions related to the transformation of managerial areas (areedirezionali – n. 5) or productive areas (areeproduttive – n. 27) were not made. Firstly, for political reasons impacting the Grosseto Chamber of Commerce, which owns the area chosen for this purpose, this example demonstrates how a decision made in state law^{20} influences local provisions.

In 2016, the Italian government approved the Reform of the Boards of Trade (D.Lgs n. 219/16) that have united some of that. The Board of Trade (Camera di Commercio) of Grosseto was united to Livorno. The decisional headquarter are in Livorno.
 This decision will influence the logics of the investments.

The second provision was not actuated because of the economic crisis. Other problems to be analysed in the next planning instrument are the decision area of the accommodation capacity (ricettività - n. 28) because the general provisions of the capacity implementation were not applied. The only result has been the redevelopment of the current structures, not a new creation. This is the result of a political idea missing in tourism—a strategic choice about the type of development that tourism must seek, that is, tourism that uses the "second house" development or tourism based on hotels. This choice will influence many other decision areas, such as airport (aeroporto - n. 21), camping (campeggi - n. 26), and camper parking areas (areesosta camper - n. 32) in all the small towns of the municipality.

Another interesting decision area to be analysed in the next town plan relates to the commerce areas (urbanistica del commercio – n. 20). In fact, the next plan must analyse the problem of the middle structures of commerce, which appertains big companies. The main theme is how these structures are sustainable for the urban system. These structures now benefit from legislation that prefers them over bigger structures. Smaller structures respond to other logic, primarily economic, based on the local commerce.

The appendix holds the full table of the decision areas.

4 Conclusions

The research has the objective of demonstrating that the strategic choice approach and traceability are helpful for monitoring and reviewing a town plan.

The interview analysis and the examples support this concept.

In fact, the structure plan constructed on the principle of traceability permitted this analysis and discussion. The "PAULUS" database was critical in searching for information and performing an analysis of the structure plan.

Some examples have been chosen to display the different types of revisions in the decision-making process. These revisions represent the contact points or breakage between the two different tools.

The ability to track the decision-making process of a single case demonstrated that traceability of decisions and memory is essential for town planning.

Traceability in a single plan or between many plans is important for identifying essential elements of a decision-making process—who made the request and when and how it entered into the plan.

It is important to remember that two approved town plans were analysed. More analysis can be performed during the decision-making process.

It was emphasised that over 10 years, it was possible to track every single decision taken and bring it into the creation process of the entire planning tool (structure plan and operational plan).

This analysis is important because it demonstrates that the decision maker can track all essential elements and control the town plan's development. This will be useful for the new decision-making process.

84

The second type of analysis shows how the strategic choice approach and the decision areas method represent an interesting way to approach planning.

The definition of the decision areas and the relative options of the interviewees deserve separate processing and perhaps a further element of investigation.

From the interviews, the current state of the implementation of the decision areas was analysed, as well as the problems encountered also by the citizens, and some changes in priorities and planning were found.

Some options for actions were also confirmed in the operational plan and other options were introduced in the planning system or had changed from the forecasts of the structure plan.

The strategic choice approach makes it possible constantly to analyse the state of the planning implementation, calibrating the choices according to what is the most suitable or deemed optimal.

The principle of traceability emerging in the Grosseto structure plan is only a natural development of the principles of transparency and participation that Article 1 of Tuscany Planning Act 5 of 1995 states is fundamental to achieving "sustainable development".

If all this is already detectable in the materials of the structure plan, with this research we wanted to show how a systematic collection of information can provide a sufficient and simple practical reconstruction that is, at the same time, sufficiently careful of the entire process.

The dissertation also provides interesting elements that show how the principle of traceability determines a different quality for the plan

IJPP – Italian Journal of Planning Practice Vol. IX, issue 1 - 2019

85

itself.

From this point of view, there is significant potential in the presence of the frequently invoked "principle of responsibility", which is of being able to expose the real responsibility of the matured decision, as we have seen, through the complex relationships between technical and common knowledge. The case of Grosseto shows that such an approach is possible.

All this aims to show how the principle of traceability is also helpful to the determination of an implementation budget. Thus, monitoring and reviewing are applied not only for determining the quantity but also in relation to possible corrective actions that can be made during the realisation.

The elements or works resulting from this path of transparencyand traceability can also be the basis for future new determinations and process reviews.

In fact, the choices that are not shared or that have not been successful from an operational point of view will be reused in a second operational plan. This serves the analysis of the framework for the decision areas. Analysing the revisions of the decision areas that occurred between the two tools enables an exhaustive framework of the variability of the decision to be drawn. These changes can be caused by several aspects, such as the changes in the political priorities, of the scale of values, the individual and associated interests, and lack of economic or technological resources.

This basic approach and this principle have the considerable advantage of allowing the decision maker to understand the limitations, motivations, and effects determined by the previous version of the plan. Thus, the decision maker can have a good starting point for understanding the territory and its development, as well as the indicators of the trends, which are difficult to understand without knowing the context of decisions.

The traceability of the decision and of the strategic choices approach can support the reviews of the plan both internally and in relation to other planning acts, as well as ensuring transparency and participation in the process that built it.

If these considerations can be made in the complete planning process (structure plan and operational plan), the same considerations can be made to review the planning process. This research finds the traces of the structure plan in the operational plan; however, the principle of traceability is valid for all planning processes. In particular, the new plan must analyse and monitor the previous one to decide where the plan is good, where it has failed, what must be changed, and how it can have a better planning process.

Appendix

The table summarizes the decision areas changed or integrated by the decision-making process of the operational plan. It was maked during the interviews.

Only solutions or combinations of solutions adopted are indicated.

DECISIONAL AREAS	Adopted solution	Comment
1 - General ways		Not evaluate Political decision not deal
2 – Links to the coast	1 – Current solution 2 – Development of the current ways: as indicated in the planning tool in force	
3- Road of main city	6 –complete reorganization of ways by the realization of the circuit or rotary in the focus point of the urban traffic.	To propose again in the next
4 – Links between urban center and industrial areas		Not examinated
5 – Managerial areas	4 – Partial use of the drain canal area	Due to the reform of the Board of Trade (Camere di Commercio), the solution no. 6 was fallen.
6 - Sviluppo Marina di Grosseto, Il Cristo		Not examinated
7 - San Rocco Harbor and Marina di Grosseto ways	current projects of the	The solutions that predict new crosswalks are not possible due to the high cost

	approved by the City Council. 7 – Current solution	
8 - Roselle	1- The confirmation of the planned project by the Municipality, the creation of the infrastructures for the Archeological Park of Roselle 3 – Like solution no. 1 and no. 2 plus the realization of the residential building in the areas around the village, the creation of the infrastructures for the Archeological Park of Roselle, the increase of the public areas.	
9 – Railway	1 – Current solution	Difficult communications with the Italian Raylways (Ferrovie dello Stato) for the realization of the others solutions.
10 – Purification systems	1 – Renovation and development of the currents purification systems.	
11 - Batignano	1 – Current project of the plan	Correspond to a no decision
12 - Istia d'Ombrone and Stiacciole	1 – Confirmation of the project of the plan.	Correspond to a no decision
13 - Casalecci		Not examinated
14 - Braccagni	1 – Project of the plan applicable	
15 – Residential expansions of the main city	Some parcelling plans	The solution are changed by the development plan
16 – City parking areas	1 – Current solution	Correspond to a no decision
17 - Alberese	1 – Current solution by the plan	Plus an other camper parking area

18 - Rispescia	1 - Current solution2 - Project of the urban redevelopment	New project are diffucult
19 - Weste	5 – Like solution no. 1 and localitation of the production system of energy by the weste in Strillaie area.	
20 – Commerce areas		View again in the next urban plan
21 - Airport	1 – Current solution	The others solution are impossible
22 – Drain canal		View again in the next urban plan
23 – Water resource		Not define
24 – Coastal pine-forest area		View again in the next urban plan
25 – Urban equalization		View again in the next urban plan
26 - Campings	1 – Like the coastal area variant	
27 - Productive areas		No realization of the project
28 - Accommodation capacity	 1 – Quality improvement of the current accomodations 2 – Increase of the accommodation capacity by the expansion of the current accomodations 	Miss a strategic vision of the tourism and the policy on tourism.
29 – Regulatory review of the public areas on the left of the San Rocco Canal	1 – Current situation	The new events are not possible
30 - Regulatory review of the Grosseto historical center and the little historical centers		Not examinated
31 – Shooting areas	2 – Relocalization of the	Only realization of the project

	shooting systems and areas	of the shooting gallery relocalization on other public area
32 – Camper parking areas	Realization near the Il Cristo and Alberese areas	The solution are changed by the development plan
33 – Open territory	1 – Confirmationof the current situation	
34 - Energy lines	1 - Current situation	Correspond to a no decision
35 – Sandy shore	1 - Current situation	Correspond to a no decision
36 – Agricoltural Consortium areas	2 – Project of the new functional use for the Via Sauro area, the buildings in Roselle and Madonnino area	Only realization in the Via Sauro area
37 – Expositive areas	1 – Confirmation of the current solution	Corrisponde ad una non decisione
38 - Salinity		Not examinated
39 – Ex mine in Roselle		Redevelopment interventions with volumetric increases
40 - Sinkholes		Not examinated
41 – Coastal dynamics		Not examinated
42 – Thermal waters		Not examinated
43 – Circuit of the horses		Not examinated
44 – Hospital area	4 – Like solutions no. 2 and no. 3 plus the identification or development of the current private structure	
45 – Cemetery area	3 – Like solution no. 1 plus the development of the Sterpeto cemetery	
46 - Jail		Not examinated
47 – Urban parks system	3 – Like solution no. 2 plus the realization of new	

	polyvalent structures and sports facilities	
48 – Shows city		Not examinated
49 - Principina a Mare		Not examinated
50 – Logistical hub		Not examinated
51 – Network of the cycle path	2 – Development of the cycle path in Grosseto	
52 – Paking for the coast	1 – Current solution	
53 - San Martino	1 – Confirmation of the current solution	
54 – Relationship between main city and villages about the new residences areas		Not examinated
55 - Rugginosa	1 – Confirmation of the current solution	
56 - Regulatory review of the urban areas		Not examinated

References

- Bracken I., "Urban planning methods: Research and policy analysis", London. Routledge, (1981).
- Carbonara L., "Pianificazione urbanistica e ricerca", in Urbanistica, 133, (2007) p. 74.

De Bianchi M., "I contenuti: le tre dimensioni della sostenibilità", in Urbanistica, 133, (2007) p.69-72

- Favali L., "Piano, Agenda 21 e certificazione ambientale", in Urbanistica, 133, (2007) p. 78-79.
- Friend, J. K., and Hickling A., "Planning under pressure: the strategic choice approach", Oxford. Elsevier Butterworth-Heinemann, (1987).
- Friend, J. K., and Jessop W. N., "Local Government and Strategic Choice", London. Tavistock Publications, (1969).
- Giangrande, A., "Integrazione delle pratiche di partecipazione nei processi di pianificazione e progettazione sostenibile ", Corso di Progettazione e pianificazione sostenibile, Università di Roma Tre, A.A. 2006/2007
- Giangrande, A., "Un approccio innovativo alla pianificazione: Strategic Choice", Corso di Progettazione e pianificazione sostenibile, Università di Roma Tre, A.A. 2006/2007
- Giangrande, A., and Mortola E., "Neighbourhood Renewal in Rome. Combining strategic choice with other design methods". Planning Under Pressure. The Strategic Choice Approach, 2005, 322–26.
- Comune di Grosseto, "Relazione generale e quadro previsionale strategico quienqunnale – Elaborato Pr08", Elaborati del Regolamento Urbanistico, (2011) pp 3-8

- Comune di Grosseto , "Relazione P luglio 2004", Elaborati del Piano Strutturale, (2004) pp. 1-30.
- Lombardi M., "STAN: a software for a Community Strategic Framework", in Italian Journal of Planning Practice, Vol. 8, n. 1 (2018)
- Luzzetti M., "Grosseto e la pianificazione urbanistica", in "1957-1982: Un quarto di secolo di storia grossetana" by G. Guerrini, Grosseto (1982)
- Nencioni M., "Una ricca storia urbanistica", in Urbanistica, 133, (2007)
- Pettini P., "Piano Territoriale e Piano Strutturale", in Urbanistica, 133, (2007) p. 74-75.
- Picchianti R., "La tracciabilità del piano Applicazione del Database CaspEditor al Piano Strutturale del Comune di Grosseto", Tesi di Laurea, Università di Roma – La Sapienza, a.a. 2005-2006 (non pubblicato).
- Ricci M., "Un piano e la memoria possibile", in Urbanistica, 133, (2007) p. 80-83.
- Scattoni P., "Il Piano Strutturale di Grosseto e la memoria della pianificazione", in Urbanistica, 133, (2007) p. 63-68.
- Scattoni P., "Flipped transparency in Community Strategic Framework. A bottom-up approach for transparent planning and urban design in Italy", in Italian Journal of Planning Practice, Vol. 8, n. 1 (2018)
- Scattoni, P. and Baldeschi P. "Pianificazione come scelta strategica". Urbanisticaipotesi", I, LEF, Firenze, 1974.
- Scattoni, P., and Falco E.. "Why italian planning is worth studying". Italian Journal of planning practice, n. 1 (2011): 4–32.

- Scattoni, P., and Falco E.. "The hidden factor in planning and local politics in Italy: the case of Tuscany". Town Planning Review 83, n. 1 (2011): 47–67.
- Scattoni P., and Tomassoni G., "Un sistema informativo per i processi decisionali della pianificazione", in Urbanistica, 133, (2007) p. 68.
- Van Steenbergen F., "The strategic choice approach in regional development planning", (1990)