

A COLLABORATIVE APPROACH TO AN ENVIRONMENTAL PLANNING PROCESS: THE “LAMA BELVEDERE” URBAN PARK IN MONOPOLI (ITALY)*

by Francesco Rotondo, Francesco Selicato, Carmelo Torre

1. Bottom-up planning and mediation practices to solve environmental conflicts. The case study

The setting. Environmental petitions and new forms of bottom-up planning

The case study described herein involved planning an urban park in the city of Monopoli¹. The site chosen was a complex geological area including some gullies eroded by rainwater running down to the sea. These still have an important hydrogeological function nowadays, even if torrential rain only falls very occasionally in the south of Italy. In Apulia, these hydrographic gorges, called “lame”, are classified in the same category as rivers and torrents and come under the same generic protection measures², but these are not enough to safeguard them if, as in the present case, the local town planning bodies have decided to put them to different use. In fact, the Council Town Plan drawn up in the ‘70s had approved the proposal to carry out reclaiming work for building purposes and the creation of a road running through the heart of the main eroded gully (lama Belvedere), at the point where it runs into the town.

Figure1: The relevance of the Lama inside the urban area.



To combat these building plans, largely supported by the Council administration, the community started to organize a counter movement, giving rise to a citizens committee with members from all political parties and various associations. These various groups were fully representative of the community, and provided the direct support of about 5.000 citizens who all signed the motion. This great opportunity enabled the citizens to prevent the city from being reduced to an inert set of urban objects, a sterile combination of functions, an amorphous archipelago of perfectly efficient islands, but instead to weave a community fabric (Tagliagambe, 2000).

¹ Monopoli is a city in southern Italy on the Adriatic sea. It is in the province of Bari, and to the south of it, and numbers 50.000 inhabitants.

² The recent approval of the regional Landscape Plan for Apulia did not introduce sufficiently rigorous norms for safeguarding the environment, as wide margins for exemptions were left.

The cohesive strength of the committee and its strong determination to insist on the rights of the citizens were partly due to the many disappointments they had suffered under the administrations of various political persuasions that had governed over the last decade. Moreover, for two years the city had been under the rule of a Commissar appointed to enquire into allegations of administrative collusion with some criminal groups, which were never fully cleared up.

Under the impetus of an ideological fervour similar to the one that incited mass participation in the '70s (Davidoff, 1965), the committee took a stand to defend weaker, disadvantaged groups, by promoting the creation of a park which should safeguard all the morphological, hydrogeological, botanic and historical characteristics and fauna of the area. This park was designed to run through the city from one end to the other, and to be closely integrated into the built-up environment, in a less fragmented and/or chance way than usually occurs. In short, the plan provided for a more continuous, systemic distribution that would not only propose new ecological functions in an urban environment (Forman and Godron, 1986), but also make it more accessible by the whole community.

The planning phases

The planning phases followed a highly complex, articulated path, being subdivided into two distinct time intervals:

a first phase to promote awareness, during which signatures were collected for the motion to create a city park in the main gorge, and a conference was held in the town, at which a vehement debate developed with the local Council administrators³. At this stage, some citizens saw fit to set up a true organizational structure, nominating representatives to constitute a citizens committee;

a second phase, of operative type, during which, together with the planning activity that was set in hand at a university structure, suitable strategies were identified, relationships with the highest institutional levels were cemented and planning solutions took shape.

The outcome of these actions seems at last to be leading to formalization of the administrative procedures for setting up the city park and it is hoped that the political intentions (Indovina, 1999) and plans will be followed by the final phase of realization of the proposed park. The time taken to organize the motion was much longer than that required for planning, which only took a few months. In the planning phase, important roles were played by a group of students, professors and research fellows from the Faculty of Engineering of Bari Polytechnic. The plan for the city park became the object of an experimental project in the context of the study activities carried out during the course on Urban Planning. The activity of the planning group was thus supported by the set of actions taken by the citizens committee, giving rise to an interactive working phase in which members of the committee were closely involved. Thus, the citizens became an active and integrated part of the planning process seen as a process to build a meaningful habitat together (Forester, 1989).

However, the meetings with the citizens committee often gave rise to misunderstandings and ambiguity, as generally happens in such interactive, decisional contexts where many different social groups are involved. These were overcome by patient enquiry and presentation of the context, content and methodology of planning as an interpretation process aiming to build a meaningful habitat together (Forester, 1989). Some of the technical experts belonging to the citizens committee, largely engineers and architects, expected to be the main points of reference for the plan, this being within their field of study, and therefore to have the ultimate power to validate the choices. However, thanks to the planners from the Polytechnic's particular skill in assessing the decision context (Vickers, 1984) and their experience, the growing climate of trust among the planners and the representatives of the citizens committee that burgeoned during the many working meetings, and the conviction that mutual support was necessary while exploring the planning pathway together, the interactive dynamics were successfully kept under control (Forester, 1989).

An equally important part was played by some public hearing sessions, held specially to sound out the feelings of those who have less opportunity to record an opinion within the committee. These included members of the local building commission, pupils of the lower and upper secondary schools,

³ On this occasion, the mayor in particular was seen to have adopted a strong stance against the creation of the city park.

citizens and representatives of various associations. The many themes dealt with focused on safeguarding and enhancing the special features of an urban park of hydrogeological type, its present-day hydrological and ecological functions, and with exploiting the opportunity to use these features to encourage sustainable mobility around the city. Thus, forms of circulation of sectorial knowledge were activated, aiming to achieve an overall, integrated view of the specific social, economic and institutional context which was the setting of the experiment (Wilson, 1997).

Within the different social fabric of the community, a common, fundamental need emerged to take over responsibility for the special places of interest in the city territory (Maciocco, 2000). In this case, such places were of environmental interest, where a true reclaiming process of the city could be achieved (Magnaghi, 1990). For the community, as well as guaranteeing preservation of its natural hydrological functions, the gully system park offers an important opportunity to restore a more ecological function to the city. The linear, systemic spread of the area, interwoven into the existing fabric of the built-up city, will offer citizens the chance to move around freely, on foot or by bicycle, in a natural, largely unspoilt environment in a protected area well away from the city traffic.

All these elements, easily combined in eco-compatible reclaiming work, were inevitably in strong conflict with the urbanizing decisions of the current Town Plan approved in the '70s, which had fortunately only been partly carried out. To solve these conflicts, which concerned not only some private building firms but also the local council administration, mediation and negotiation strategies were set in motion (Forester, 1989), although their outcome is still not entirely clear.

The planning activities therefore developed along research paths marked by various intermediate stages, in which common knowledge and expert knowledge, the needs and wishes of the community and technical and functional requirements were integrated, so as to reach final constructive solutions that could mediate among the different positions that had emerged within the different social groups (Forester, 1989).

All this culminated in drawing up a preliminary project, which delimited the gully system area involved and the relative safeguarding norms that should modify the current town planning regulations.

The project, supported by the citizens committee, was then proposed to the council administration for approval, to set in motion the procedures for introducing a variation in the Town Plan. This was the first real occasion for sounding out whether the local administration really intended to support the citizens' motion, after the many statements made, largely unofficially, by various political exponents of both the ruling party and the opposition.

It should be borne in mind that owing to various fortuitous circumstances having to do with the role of some of the local politicians in the provincial, regional and state government bodies, other institutions had also shown some interest in the creation of the city park.

The climate of trust that had already been established between the planning group and the most representative members of the community was thus widened to include political and/or technical figures at the various institutional levels, that contributed to support the coalitions as the project developed (Krumholz, Cogger, Linner, 1975; Jacobs, 1978; Forester, 1989)

It was then discussed at a specific meeting of the local building commission, with representatives of the citizens committee and the whole working group from the Polytechnic present. After long discussion and above all strong agreement expressed by all the members of the commission, the plan was considered worthy of approval, despite some doubts voiced by the councillor for town planning, which revealed that the opposition of the administrative council had still not been entirely overcome. The main doubts concerned the attitude the administration should adopt toward some building companies, that were determined to uphold the right to build sanctioned by the original urban plan against any public use of the soil, unless adequate compensation were made.

Nevertheless, thanks to the efforts and mediation of the council engineer, the proposed plan was approved by the council executive board, although such deliberations are subordinated to official mediation mechanisms between public and private interests and hence to final approval by the Council. In the light of the results obtained, the citizens committee and the Polytechnic working group therefore directly undertook to identify all possible forms of funding, mediation and negotiation that might further the proposal, again taking on tasks that should have been the responsibility of the

administration, had this body not been clearly shown to be indecisive and unwilling to deal with the problem.

At the same time, the interest that had already been shown by other institutions on various occasions was followed by an express invitation by the undersecretary for the Ministry of the Environment to the promoters of the project to meet at the Ministry to discuss the details and feasibility of the plan. This meeting with the undersecretary, executives and technical experts was attended by about 40 people, representing the community from Monopoli, the citizens committee, officials from the local Council and the Provincial government, professors, research fellows and students belonging to the experimental working group.

The discussion was highly constructive and many helpful points emerged. After the people's initiative had been warmly praised, some direct strategic actions were suggested for furthering the plan:

the use of financing made available by the European Union, under the project name *life-ambiente*, to which the urban park plan could conform. The Ministry guaranteed full collaboration in drawing up the application;

the need to register a formal variation of the current Town Plan, which the council administrators present at the meeting declared their willingness to undertake⁴;

the launching of studies to delimit a protected area including the entire gully area in the territory of the Monopoli council⁵, to be financed by the Provincial government of Bari;

inclusion of the whole area as defined in the study, in the list of new provincial protected areas to be approved⁶.

The next step was to draw up a preliminary plan, undertaken by the working group from the Polytechnic, which detailed the work on environmental reclaiming and access to the area to be turned into the urban park, establishing the aims, contents, costs, strategies and expected outcomes for the community. These were then transformed into plans and projects to be submitted as applications for financing under all the forms made available by present national and European norms. In the same period, the citizens committee set in hand other mediation and negotiation measures, by contacting the firms that opposed inclusion of the private land on the perimeter of the park in the protected area, to try and find possible solutions while awaiting the decisions of the local Council. This process is now concluded at the local level, after several difficulties, with the modification of the Master Plan prescription, with the institution of the Landscape Conservation Area by the City council and at the regional level with the formal institution of the protected area.

Until that moment, the position adopted by the local administrative Council was very ambiguous: at first it was opposed to the project, then it showed qualified approval, being ready to declare full support of creation of the park (albeit in vague terms) at public meetings. This support was never forthcoming in practical terms, however, in the sense of promoting initiatives aiming to find solutions to the problems, and the bureaucratic procedures required to alter the current Town Plan have still not been concluded despite the public commitment taken to this effect⁷. If concrete, decisive action does not follow within a reasonable time, the attitude of the local administration must be concluded to suffer from many symptoms of the practice of misinformation that is still common among administrative bodies as a means of controlling citizens' choices (Forester, 1989). The public declarations of support would then be generic ritual responses, and the decisions of the Council executive board nothing more than a useless symbolic seal of approval. Instead, the technical manager of the Council was shown to adopt an entirely opposite attitude: although his work normally involves administrative assessments of a technical-legal nature rather than planning activities, he was an unexpectedly enthusiastic source of suggestions and the main proponent of the single deliberation act produced by the Council.

⁴ The council administration was represented by the vice-mayor.

⁵ The proposal was made by the administrative officials of the Provincial government present at the meeting, headed by the Councillor for the Environment.

⁶ A formal undertaking in this sense had been made by some administrative officials of the region, although they were not present at the meeting. At this stage, the bureaucratic procedures for recognition of the *lana Belvedere* as a regional protected area has been completed with the publication of a specific regional law (L.R. n°16 del 24 luglio 2001).

⁷ At present, approval of the "urban park" as a variation of the current PRG has been achieved by means of a local Council resolution.

The pluralist nature of the decision-making

The characteristics of the particular decision-making environment in which the project developed are similar to those of a planning process, in which administrative practice has to take into account the different social aspects of the context (Forester, 1989).

In this case, many people were involved: various different groups of inhabitants, representatives of the citizens committee, the enterprises directly involved, researchers and experts in various fields of environmental science belonging to the planning group, institutional officials. Many of these interacted very constructively (especially the citizens committee and the working group from the Polytechnic) in various working milieus (some school buildings during the hearing sessions, the planning laboratory of the Department of Architecture and Urban Planning, community meeting grounds, the gully territory being studied), while others carried out their institutional activities in the various offices spread over the regional territory (the Council technical offices, the technical secretariats of the Provincial government and Ministry of the Environment). Many of the people involved were authorities, with decision-making and management powers that they intend to exercise in the furtherance of the procedures for approving the plan.

Figure 2. Salient characteristics of the decision-making process

People	Organization of the work and spaces	Actions and undertaken	Information	Times	Strategies
Many: inhabitants, citizens committee, enterprises, experts, planning group and institutions; highly collaborative experts in various fields; institutional and government officials with decision-making and management skills;	Community meeting grounds; schools for the hearing sessions; the urban park areas; various facilities over the territory and minor links with the internet; socially diversified backgrounds;	Various interpretations of the norms; various assessments of the choices;	Imperfect, incomplete and highly variable; Depending on the occurrence of particular events;	Limited and variable among the many non institutional members; uncertain and spread over the time periods required for the Council administration	Personal relationships and contacts with the enterprises and council administrators; defined with the representatives of the various institutional levels, according to the short or medium term objectives.

The work was assigned according to skills as far as possible. The social backgrounds were highly diversified (thousands of citizens were instrumental in the process, through the citizens committee). Interpretation of the norms and the consequent assessment of the choices was also highly diversified: the experts and citizens committee concluded that the variation to the current Town Plan was feasible and relatively rapid in legal terms; the local Council instead held to the view that the plan could gain approval only if it were supported by a corresponding financial cover (this might also have been another example of the misinformation process whereby the local administration aimed to control the citizens' consent).

The information on the planning proposals is often incomplete and highly variable (What are the true intentions of the administrative Council? What will be the outcome of the mediation and negotiation attempts with the enterprises and how will this affect the planning choices that have already been made with the citizens committee?)

Time turned out to be a socially precious resource. This varied greatly among the different groups: very limited time available for the Polytechnic planning group (the research program had to be concluded within a few months); the administrative times needed to be equally limited, in the opinion of the citizens committee (longer times could reinforce the resistance of the enterprises, while the local administration could also change its view); the local Council administration times were uncertain and subject to deferment (in conflicting situations it is better to postpone decisions).

The decisional strategies were initially set up thanks to personal initiatives and contacts with the enterprises and council officials; only later were they inserted in a wider context of undertakings defined with representatives at the various institutional levels (at the meeting with officials from the Ministry of the Environment). These identified different short and medium term objectives to be pursued.

The environmental conflicts

By its very nature, any planning process is bound to trigger some conflicts (Schon, 1983), which are particularly tricky when the use of the soil is involved. In this case, the potential for conflict was even greater than usual, as the plan called for a reduction, or even elimination on some private land, of building rights that had been ratified by the Town Plan in force for over 20 years.

In fact, the area is at present set aside for facilities of public utility, but the owners had not been able to put this in hand as some norms forbade building by private citizens in these areas. Nor, on the other hand, had the various administrative sectors taken responsibility for any intervention over the last twenty years, by expropriating the areas and realizing the relative buildings. When the legal position changed, private citizens being allowed to undertake building directly, the latter had started procedures for setting this in hand, before the question of the urban park arose. In the face of this new obstacle, the citizens had therefore proclaimed from the start a vigorous opposition to such use. Mediation attempts between the various interests were made by the representatives of the citizens committee together with some of the planners from the Polytechnic, by personally contacting the private enterprises directly involved. During these meetings, the enterprises complained of the absence of the local administrators and claimed they had been severely penalized by unjust choices, default and omissions committed by the local administration, which had resulted in financial loss to be imputed entirely to the Council administration.

An understanding, constructive climate was then instated with these enterprises (Forester, 1989), and mediation was conducted actively and productively. All the parties were very frank in illustrating the reasons for upholding their objectives. In the absence of representatives of the local administration, the enterprises had no qualms about admitting in confidence what minimum adjustment they would regard as acceptable. Some lines of conduct were examined, that the enterprises considered particularly interesting and which decided them to revise their original positions of opposition. Thus, a typical situation developed, in which each of the parties was led to revise their approach through a cyclical process of mutual exchange of knowledge mechanisms, and to change their attitude to the problem (Argyris, Schon, 1978; Schon, 1983).

The most feasible hypothesis was considered to be that transferring the building rights to adjacent areas with similar allocations in the Town Plan (for facilities of public utility) by means of administrative equating mechanisms and procedures, thus redistributing the relative outlay and income among all the owners according to the entity of their holdings.

These mediation activities are still ongoing, including negotiations aiming to define possible solutions in terms of adaptation, operating phase by phase as the opportunity arises, in the attempt to reach agreements on specific issues according to a typical incremental approach (Lindblom, 1965).

2. Building up environmental consciousness/conscience. The rediscovery of the lama belvedere

The need for social learning in the participatory process

In recent years many researchers have underlined the importance, among the fundamental components of efficacious environmental planning, of the support of local wisdom. On various occasions, Magnaghi (1990, 1995, 2000) has pointed out that building up a territorial network is a process based on the appropriation of areas, during which many phases require a new common consciousness to be developed. The relative areas are delimited and labelled, in a community process generically known as identity building, which occurs by means of recognition of their features.

In the case of the gully named Lama Belvedere, the area already had its own features but has now been the object of a re-appropriation process during which new, urgent decisions had to be taken about its use. This re-appropriation process involved rediscovery of an ancient consciousness that had to be reunited with the new awareness, as the former was generated by the “local wisdom” and the latter by an emerging environmental conscience developing within the community. The Monopoli experience thus demonstrates that a participatory process can generate a new environmental consciousness, thanks to its interactive features. The decision to set up a citizens’ committee to safeguard the Lama and to adopt a variant of the PRG planning norms to eliminate its status as a roadway offered an opportunity for collecting together a series of facets of wisdom, of various types and origins, that conferred on this experience its exceptional character.

The process of building up a consensus was a further element that prompted its promoters to organise a campaign for consolidating this conscience and collecting and spreading information. They encountered the typical difficulties inherent in environmental communication, needing to appear not as “denouncers” but rather as builders of a new consciousness of the existence of, and need for a particular resource. Otherwise their actions would have given rise to a growing conflict fostered by one part of the community against another. This situation has been described in the literature by Luhman (1992) as one aspect of the fragility of denunciations of environmental emergencies, in which the environmentalists risk being seen by the community as external, extraneous elements fomenting *trouble*. In this context the most taxing hurdle was that of denying the contention that the PRG identification of the area as a roadway was a necessary, unavoidable solution. To do this, elements indicating the possibility of adopting other thoroughfare solutions had to be provided and the increased hydro-geological risk had to be shown to pose a danger far outweighing the benefits that might have derived from a new roadway running through the heart of the gully. This information needed to be easily understood and transferred, to widen the consensus about the need to safeguard the gully: to “convince” people, they had to be “made conscious”. The members of the citizens’ committee therefore had to promote collection and diffusion of local wisdom, “stored” but not circulating among the younger generations. The wisdom of the place was evident in the memories of the elderly citizens, who remembered very clearly what environmental importance the gully had and the high rainfall occasions when it had filled and averted the danger of flooding the town.

3. ICT and Community

The new environmental horizons of planning have contributed to enlarge its cognitive bases. New competencies have been added to the traditional ones such as socio-economic, architectural and urban design matters. In particular for a deeper understanding of the territorial structure there’s the necessity to introduce in these studies new disciplines such as historical disciplines, social sciences, cognitive sciences, environmental sciences, with its own modelling tools.

Only interdisciplinary procedures capable to mix different scientific approaches could bring us from the phase of the knowledge building to the project synthesis, decision element which characterise the plan (Besio, 1999).

It’s frequently underlined in scientific literature (just as an example we can refer to Steiner, 1991), in what measure recognising the environmental resources it’s a cognitive process in which there’s the necessity to acquire “objective” data related to the physical form of the territory described with its

structural characteristics and “subjective” data related to the resources’ value given by the resident community, derived from symbolic and cultural meanings attributed them (Selicato, 2001). The link between environmental resources and their value for the resident community its a fundamental knowledge base by which start the planning process.

Using technologies in collaborative planning process

*“Tell me, I forget.
Show me, I remember.
Involve me, I understand.”*
(from Moore and Davis 1997)

These words, very well known in the States, summarize effectively the role that images, 3D visualization and active participation could have together with learning process. la maggiore efficacia della rappresentazione visiva rispetto a quella semplicemente verbale e del coinvolgimento diretto del discente rispetto ad un suo semplice ruolo passivo, è ampiamente riconosciuta.

In didactical experiences⁸ it’s very well known from a long time the best efficacy of visualization and of direct involvement of students for the best understanding of teaching.

In the opinion of theorists and promoters of interactive and collaborative planning (Forester, 1989; Innes, 1995, 1998; Healey, 1997), the plan is a learning process between the actors involved, so instruments capable to made clear and transparent the analysis at the base of choices, capable to visualise the process, capable to improve the understanding, could be really useful to involve people in these process.

On the other hand we can say that at the moment, risks connected to the use of technologies in planning process are such big as their potentiality. After the first period of a large enthusiasm related to technologies in collaborative planning, today there is a larger consciousness about the possibility given by these tools to empower people or to marginalise them in decision process (Harris, 1999).

In fact the results given by some public experiences of the support given by these tools, showing on one hand how difficult could be translating the expert knowledge (normative prescriptions, zoning, indexes, multicriteria evaluation and so on, just to give a little example of methods, instruments and techniques used by an expert approach to a planning process) in common language easy understandable to people participating at the meetings, who normally don’t understand it in an easy way, and on the other hand how difficult could be translating common knowledge in a organised representation.

The consequent frustration has often conducted people to a lost of trust in planners and in politicians who have promoted the process, and it has conducted promoters of these process to a lost of trust in collaborative experiences which they have promoted.

Besides these aspects, it has to be said that expectations related to technologies for its capacity to build scenarios representatives of communities opinions almost in real time, they aren’t not yet satisfied and they need further investigations.

So at the end of this brief overview, it’s possible to say as it follows: Geographical Information Systems, aerial photos, digital simulations, audio and video recordings of public meetings, web access to public information, real time scenarios, could be useful tools in improving collaborative experiences.

The ways to do so and the more appropriate contexts to implement these technologies are a wide and discussed research field in which could be classified the work we present here, trying to investigate these problems.

4. Some reflections about the use of ICT in the project of the park

Successful collaborative planning approaches require the actions and decisions taken and knowledge layers used to be highly transparent (Booher, Innes, 2000). This need to make all the data collected immediately available to all the participants involved in the decision-making process can be filled thanks

⁸Recently tested in planning courses offered in the Politecnico of Bari, with the planning experiences of Lama Belvedere Park in Monopoli or with the involvement of students in didactical laboratory building the Plan for the National Park of “Alta Murgia” in Puglia Region.

to new technologies. Among these, territorial data systems, owing to their ability to manage large quantities of discrete data and objects, and to represent the results of the analyses carried out on them in graphic form, help to make such requirements easily intelligible.

However, while the use of GIS in planning processes promoted by institutional bodies is becoming more and more common, especially to draw up consolidated town plans (Ciancarella et al., 1998), their use is less documented in processes planned and carried out directly by the community to combat the inertia of the institutions or to prevent administrative actions opposed by the community, as in the present case⁹.

One of the aspects that marked out the experience described herein was that it enabled the working group belonging to the Department of Architecture and Planning to provide the citizens committee, and thereby the whole community, with information technology making it possible to evaluate the data available and to direct their choices, thus interfering with the usual relationship between the institutions and the citizens, in which the former manage the information made available and the power that derives from it. The widespread confidence, especially in technical environments, in the ability of information tools and above all GIS, to improve decision-making processes¹⁰, has been lessened by the results of recent research on the true connection between information and decision-making¹¹, demonstrating a different scenario linking the intentions of decision-making bodies with their use of these tools. Within these bodies, information seems to be used more as a symbol than a signal, to validate and present in the best light choices that have already been made on other bases (Ciancarella et al., 1998; Feldman and March, 1981). Recent experiences in the United States (Clark, 1998) point out the risk that GIS, contrary to expectations, may favour the development of yet another, new technocratic elite (Nedovic-Budic, 2000).

In this case of the plan for the Lama Belvedere park, the GIS provided the many different groups of participants in the working party with the tools to demonstrate incontrovertibly that the gully "Lama Belvedere" where the town master plan (PRG) had authorized a road belongs, in fact, to a wider gully system, spreading all over the Council territory, that is needed to drain the waters and keep down the risk of flooding of the area (the database on the volumes of yearly rainfall collecting in the shingle basin of the gully demonstrated the entity of this risk).

The possibility of moving from the local scale to a wider virtual visualization of the territory, and of referring in real time to alphanumeric data on the environmental analyses carried out, made the members of the citizens committee better aware on the true value of the site as an ecosystem, and thus formally validated the subjective impressions collected on the site (on the basis of the important vegetation present). Overlays of the cartographic data available, orthophotos and aerophotograms, on the theme maps to assess the attribution of zones according to the PRG and the property distribution according to the Land Registration maps, provided a basis for the proposal of a variant of the PRG in force, backed up by rigorous technical and graphic evidence, and thus favoured constructive discussion of alternative planning ideas inside the working group itself.

The GIS and information technology used, although relatively simple to the eyes of the experts, enabled different groups, including those with no specific knowledge of the field, to participate in the decision-making process, thanks to the GIS summarising powers described above, and ability to display data analyses in graphic form. The possibility of "seeing" the true integration of the Lama Belvedere in the hydrographical network of a wider territorial layout and of verifying in practice how in environmental questions local decisions can affect global issues, contributed to give concrete form to the sustainable development issues discussed in the schools involved, whose teachers are members of

⁹ As pointed out in the contribution by Selicato F., contained in Selicato F., 2001, *Pianificazione dal basso*, *Urbanistica DOSSIER* n° 39.

¹⁰ A modern version of the ideas of Herbert Simon expressed in his best known works such as "Administrative behaviour" and the later "Models of limited rationality", claiming that the use of information systems increases the quantity and quality of the information available, and hence the rationality of the choices, thus permitting better decision-making.

¹¹ On this subject, the research carried out in nine European nations by the European Science Foundation, in the context of the scientific program "Geographic Information Systems Data Integration and Data Base Design" (GISDATA), gave interesting results.

the citizens committee. The simple technological tools made available by the Department of Architecture and Urban Studies to the citizens committee expedited debate with the institutional bodies and helped to make the citizens' planning ideas operative, reinforcing their power to negotiate with the Council Administration.

5. Conclusion

At the end of this experience of collaborative planning we can make some general considerations about related issues, such as participation in environmental planning and the use of new technologies supporting the collaborative process.

Starting from the experiences of advocacy planning made in USA at the end of the 'sixties (referring for example to the Cleveland case, Krumholz, Cogger, Linner, 1975), a large number of practices have been realised in this field and not always the results have been satisfying for a various number of reasons, one of this is the function of the participatory process in the planning ones (Goodman, 1973). That's to say, it satisfies a real need of people or it is just a need of institutions to build consensus on their political actions? In this case one of the reasons of success is the role of the collaborative process in satisfying the real need of community to change a not shared master plan provision, that's why we have seen a full participation in the process. Besides this it has been important the clear community's need to have a third actor (the university planning team) in dynamics with council administration enabled them to speak the expert's language and capable to translate their idea of the right land use of that area. Another important reasons of success in these kind of communicative procedures is the capability of planners to maintain that subtle balance between expert and common knowledge, maintaining the right distance between the social groups for which they work and the institutional actors having the ability to live together ambiguity and contradictions typical of these process (Friedmann, 1987). In this case the role of the "reflective practitioners" (Shön, 1983) has been really central because of the capacity of the planning team to avoid any form of rigidity to achieve the desired result of community, not giving any importance also to some behavioural ambiguity of the community committee itself.

Talking about the use of new technologies supporting the collaborative process, we can say that CAD, GIS, Database and so on, in a word "technology", is not the solution when we talk about participation or democracy in planning process, it could be a support system that become useful when it satisfy a real need of a community really involved in a process, as already known in scientific literature but not always clear to common people. In this case a simple technology such as the GIS one has been useful for community to visualise the results of the hydraulic risk generated by the Master Plan implementation on territory, augmenting their belief of being in the right position. At the end one of the possible uses of technology to support these processes (tested in this experience) is to enlarge the common human possibility to comprehend phenomena usually described in an expert way.

On the point of view of education, in this experience we can distinguish two levels of influence. The first one is that of the university students of the planning school of our department who have participated directly to build the project inside the planning team doing their laboratory work, testing "live" what is a real collaborative process, what are the conflicts explicit and implicit characterising it, understanding "on their own shoulders" that planning practice is thus not an innocent, value-neutral activity (Healey, 1997), living as a planner the importance of social mobilisation and participation, as requested a lot of times in congress and meetings about planning education (for example Healey, 1996). The second one is the level of community and its environmental consciousness.

In the traditional agency-driven approach to resource use planning, the community is informed about the state-of-environment and the consequent plan. Increased community involvement may result in consultation or even negotiation about the interpretation of the former and the structure of the latter. However, delegation to the community means that they have to be responsible for these processes and have the capacity to undertake analysis and evaluation. So, the key distinction between an agency driven approach and a community driven approach is the control of the information, evaluation and decision-making process. Empowerment of community based groups means they have involvement and ownership of both information and decision processes (Harris T., Weiner D., 1999). In this case

community has provoked and guided the whole process than the ownership of both information and decision has been a reality, the consequence is the possibility to build on its own, the state-of-environment and the consequent plan (in the second phase of the process compared with the institutional one) verifying in practice how in environmental questions local decisions can affect global issues, contributing to give concrete form to the sustainable development issues often theoretically spread by media.

Francesco Rotondo, Francesco Selicato, Carmelo Torre

Dipartimento di Architettura e Urbanistica – Politecnico di Bari, via Orabona 4, 70126 Bari; Italy
e-mails: rotondo@dau02.poliba.it; selicato@poliba.it; torre@dau02.poliba.it

References

- Argyris C., Schon D. A., 1978, *Organizational Learning: A Theory of Action Perspective*, Addison-Wesley, Reading, Mass
- Booher D., Innes J., 2000, *Public Participation in Planning: New Strategies for the 21st Century*, Working Paper 2000-07, University of California at Berkley, Institute of Urban and Regional Development, pp. 18-19
- Burrough, McDonnell, 1998, *Principles of Geographical Information Systems*, Oxford University Press, New York, page 7
- March J.G., Olsen J.P., 1992, *Riscoprire le istituzioni. Le basi organizzative della politica*, Il Mulino, Bologna
- Ciancarella L., Craglia M., Ravaglia E., Secondini P., Valpreda E., 1998, *La diffusione dei GIS nelle amministrazioni locali*, Franco Angeli, Milano
- Clark M.J., 1998, “GIS – Democracy or Delusion?”, *Environment and Planning A*, 30 (2), pp.303-316
- Davidoff P. (1965), “Advocacy and Pluralism in Planning”, in *APA Journal*, 31, pp.331-338
- Forman R.T.T., Godron M. (1986), *Landscape Ecology*, John Wiley and Sons, New York
- Feldman M.S., March J.G., 1981, “Information in Organizations as Signal and Symbol”, *Administrative Science Quarterly*, n. 26, pp. 171-186
- Forester J. (1989), *Planning in the Face of Power*, University of California Press, Berkeley; trad. it.: Pianificazione e Potere, Dedalo, Bari, 1998
- Friedmann J., 1987, *Planning in the public domain. From Knowledge to action*, Princeton University Press, Princeton
- Goodman J, 1973, *Oltre il piano*, Il mulino, Bologna
- Healey P., 1996, “The future of planning education”, paper presented to the congress organised by ACSP-AESOP, titled *Local Planning in a global environment*, Toronto, 25-28 of July 1996
- Healey P., 1997, *Collaborative planning. Shaping Places in Fragmented Societies*, Macmillan Press, London
- Indovina F. (1999), “Riqualificazione urbana: le tre virtù”, *InfoRUM*, 3, Ferrara, p.3
- Jacobs A. B. (1978), *Making City Planning Work*, American Society of Planning Officials, Chicago
- Krumholz N., Cogger J., Linner J., 1975, “The Cleveland Policy Planning Report”, *Journal of the American Institute of Planners*, 41, pp. 298-304
- Lindblom C. (1965), *The Intelligence of Democracy: Decision Making Through Mutual Adjustment*, Free Press, New York
- Luhman N. (1992), *Comunicazione ambientale*, Angeli, Milano
- Magnaghi A., (ed.) 1990, *Il territorio dell’abitare. Lo sviluppo locale come alternativa strategica*, Franco Angeli, Milano
- Mc Harg, 1969, *Design with nature*, Pion limited, London

- Nedovic-Budic Z., 2000, “Geographic Information Science Implications for Urban and Regional Planning”, *URISA Journal*, vol. 12, n. 2, pp. 81-93
- Selicato F., 2001, “Istanze e ruolo della comunità nella costruzione del processo decisionale” in Selicato F. (ed), Pianificazione dal basso e soluzione dei conflitti ambientali *Urbanistica DOSSIER n° 39*, pp. 2-8.
- Shon D. A., 1983, *The reflective practitioner: how professional think in action*, Basic Books, New York
- Steiner F., 1991, *The living landscape. An ecological approach to landscape planning*, McGraw Hill, New York
- Harris T., Weiner D., 1999, “Community-Integrated GIS for Land Reform in Mpumalanga Province, South Africa”, in Craig W., Trevor H., Weiner D. (eds.), Empowerment, Marginalization and Public Participation GIS, Report of Varenus Workshop October 15-17, 1998, Santa Barbara, California, available online at: <http://www.ncgia.ucsb.edu/varenus/ppgis/papers/>
- Tagliagambe S., 2000, “Che cosa significa etica della pianificazione nelle organizzazioni complesse?”, in Maciocco G., Deplano G., Marchi G. (eds), Etica e pianificazione spaziale, Franco Angeli, Milano, pp. 98-133
- Vickers G., 1984, *The Art of Judgment*, Harper & Row, New York
- Wilson P.A. (1997), “Building Social Capital: A Learning Agenda for the Twenty – first Century”, *Urban Studies*, vol.34, n.5/6, pp. 745-760

* This contribution is the fruit of reflections shared by the authors, that matured during experiences gained in the Planning Laboratory at the Department of Architecture and Town Planning of the Polytechnic of Bari, in the group coordinated by Franco Selicato, although the abstract and Paragraph 1 is due to F. Selicato, Paragraph 3 is due to C. M. Torre., the others are due to F. Rotondo.