

Community planning activities for rehabilitation projects in Italy. The positive case of the children participatory design on the area of Vergomasco landfill in Odolo, Brescia

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Abstract

Participatory planning methods are an essential tool for rebuilding the relationship between the inhabitants and their environment.

This paper presents a successful participation process with children and the adult inhabitants of the small town of Odolo through which a landfill of inert waste was transformed in a park of 10 hectares with recreational facilities.

Following the proposals of the children and the other stakeholders, the implementation of the park was carried out between the end of 2009 and the beginning of 2010. The paper also gives a short presentation of the outcomes of a qualitative evaluation of the process and its outcomes, conducted in September 2015.

Keywords

Participatory Planning, Children, Waste Management, Green Areas

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Waste management and participatory planning

The recent weakening of the link between the inhabitants and the environment where they live has very serious social and environmental consequences in the world of waste management, up to well-known medical emergencies throughout the country. Usually the population face the concepts of waste, landfills and treatment plants with prejudice. It is the well-known 'NIMBY syndrome', which has in recent years extended to regional and national levels (Livezey, 1980).

The behaviours of some politicians, who do not play the role of promoters of responsible values towards their territory, but feed people's fears and stereotyped images, often worsen these problems. The outcomes are that the location of new plants has hampered as well as the development of existing installations and rehabilitation work (Lavagetti, 2014; Nimby Forum, 2018). Moreover, that brings on the one hand to the export of waste outside the territory with impacts and costs that are not sustainable and on the other to the proliferation of uncontrolled and illegal management of waste (EEA, 2016; ISPRA, 2016).

Participatory or collaborative planning (Bishop, 2015) is a very useful tool to decrease the levels of conflicts and to attain more sustainable, shared and higher quality projects. The involvement of chil-

dren in these processes has further positive effects. First, it helps a wider and more diverse group of adults to get involved and it facilitates the creation of more collaborative positions. Second, as children are more open to the needs of other users and more responsive to natural elements, it is more likely to foster sustainable design projects. Finally, children's involvement adds a powerful educational value to the planning process, because children can experience first-hand how to manage the common good (Hart, 1997; Lorenzo, 1998; Driskell, 2002).

In our country, participatory projects with children started spreading in the late 1990s. The approval of the UNICEF Convention on the Rights of the Child in 1989, ratified by Italy two years later, was the legal milestone of this process. Article 12 affirms «the right to express those views freely in all matters affecting the child, the views of the child being given due weight in accordance with the age and maturity of the child», being the quality of the environment where children live a very relevant matter. The issuance of the National Law n. 285 (known as *Legge Turco*) in 1997 and the project '*Città sostenibile dei bambini e delle bambine*' (Sustainable city of boys and girls) gave further boost to the involvement of children in community planning projects, offering legal and financial support to municipalities interested in carrying out participatory planning pro-



cesses with children (Lombardo, 1998; Amodio et al. 2001; Unicef Insight, 2005).

The local context and preliminary steps of the participatory process

Odolo is a small town (2.000 inhabitants) located in the Valsabbia (Brescia province) 80 kilometres east from Milan. Iron industry in Odolo and the Province of Brescia has had a long history starting from the 14th century, thanks to the presence of iron ore, rivers and charcoal. In the 50s Odolo became a national center for the production of steel round bars, used in reinforced concrete for the post-war development of Italy. Odolo's steel round is produced by electric ovens, a technology that produces waste, the so-called steel slag, made of iron silicates with a consistency similar to lava rock (Pedrocco, 2000). Until the 80s, Odolo's steel mill waste was deposited on the ground in the valleys and cliffs close to the steel mills, such as the Vergomasco valley, located very close to the town and the parish church. After

the waste legislation (Lombardy Regional Law n. 94/80), it became a landfill site. The oldest part of the landfill, which is further from the town centre, was already transformed in a green area (Fig. 1).

In 2005 Vergomasco S.c.ar.l., a new consortium of Odolo steelwork companies, committed Montana S.p.A., a Milan environmental engineering company, for a new environmental recovery project.

The site of 15 hectares, inaccessible for many years, needed to be turned into a public park with recreational facilities. The entire construction cost of the project would be charged to the consortium, as well the cost of its maintenance for 10 years.

The project was authorized, in order to adapt the landfill to European and National regulation by mitigating the morphologies to the surrounding landscape.

In 2006 the environmental geologist Piero Simone of Montana S.p.A. and landfill area supervisor, proposed to Vergomasco the use of participatory methods as he was deeply convinced of their of

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Fig. 1 – View of the project area and the landfill (Photo: Piero Simone).

their positive impact in the management of rehabilitation projects.

The consortium agreed in line with its strong tradition of attention towards the inhabitants' needs and questions. And, so did the Mayor, who was interested in trying out an innovative project in the town of Odolo.

The team of facilitators, hired to manage the participatory process by Montana, conducted an initial analysis of the local context, in collaboration with the Municipality. The outcomes of this analysis led to the decision to give children the leading role in the process. The reasons were both educational as well as for a successful implementation of the park project and its management

Specifically, the team wanted this project to be an interesting opportunity to enforce the European Landscape Convention (art. 6) (Castiglioni, 2009) and to create a sense of ownership and meaningful connection between children and the new park, a place strategically located close to a church parish, sports fields and the school. This last goal was even more important in the small town of Odolo, where the percentage of students with foreign origins was very high.

Moreover, children were among the main stakeholders, as future main users of the new area. At the same time, as sensitive to other users' needs, they could become powerful mediators of local con-

flicts and involve, as they actually did, their families and their community in a proactive dialogue. Finally, projects that are planned with children are usually more sustainable both environmentally and economically (Lorenzo, 1998).

In the spring 2007, the local municipality contacted the primary school, as it could guarantee, better than other more informal social environment, a continuous and articulated participatory process with children. In June, the project was presented to the school principal and the teachers, who joined it with enthusiasm. The project was carried out through a unique cooperation among public institutions (the Municipality of Odolo, the local primary school and the Province of Brescia) and Vergomasco, the local consortium of steelwork companies (Ferreria Valsabbia, Bredina and IRO). The project had also the patronage of Lombardy Region.

The process: participants, content and results

The main participants were a group of around 70 children aged from 7 to 10. Nearly half of them had foreign origins (Chile, Pakistan, India, Mali, Morocco, etc.).

The process covered three school years between the autumn 2007 and June 2010. The process with children was divided into a dozen of workshops (2 hours each) - some took place in the classrooms and



Fig. 2 – Exploring children's needs using the drawings of their favourite play activities (Photo: Claudia Zaninelli).

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Fig. 3 – The inspection of the project site: each group of children was given a sheet of paper with its task (photo: Claudia Zaninelli).

some on the project area – that were managed by experienced facilitators with the support of teachers. More specifically, before each workshop, the facilitator team briefed the teachers about goals, process and desired outcome, so they could be part of the team and give effective support during the in-class activities. The activities were planned by the facilitators, giving particular attention to the development of tools as diversified as possible (pictures, maps, questionnaires, interviews, role-play games, etc.) and to the mixture of individual work and teamwork, in order to encourage the best participation of all the children.

In September 2007, the facilitators, together with the teachers and Montana technicians, pointed out the first steps of the participatory process.

The starting point was the identification of what makes a quality green space. Each student drew his/her favourite activity in a natural environment and pointed out the main features of these spaces; including: the alternation of large spaces and smaller ones hidden by the vegetation, water (lakes, rivers), fruit-bearing plants, shrubs, aromatic herbs, plants with coloured, sweet-smelling flowers, etc. (Fig. 2).

The following inspection of the area allowed the children to check its position with respect to the country and to gather data for its analysis from both a subjective and an objective point of view. The col-

lected information included the size and morphology of the area and its native vegetation, as well as the positive and negative feelings that this place gave the children. During the inspection the children were also informed about the 'design space' available and the main environmental and regulatory constraints that were to be taken into account (Fig. 3).

As the park would be a public space, the children identified the other future users (mothers with young children, elderly, teenagers, etc.), wrote a short questionnaire, that was then refined by the facilitators, and asked a sample of known people, beneath the identified groups, to fill it.

Once completed the analysis of context and needs, the team proceeded to the planning step itself and the development of the first design proposals. The tool used was an *ad hoc* variant of Planning for Real, a widely used tool in the context of participatory planning. Similarly, to what usually happens in role-playing games, children, divided into small groups, were asked to describe a visit in the park by the different groups of users (children, adolescents, mothers with toddlers, dog's owners, old people, etc.) and then act as advocates defending their ideas. Then, using a large map of the project, conflict situations were solved, bringing to a proposal supported by the whole class (Fig. 4).

On June 4th 2008, an exhibition and a meeting were



held at the town hall. The children presented the work they had done and their proposals to the Mayor of Odolo, the Vergomasco CEO Pierluca Levrangi, the representatives of Montana, Piero Simone and Alessandro Bertelli, and many parents and friends. The purpose of the meeting was also to gather adults' suggestions and ideas about children's projects. In autumn 2008, at the beginning of the second year, the participatory process was divided into two parts. While Montana worked at the assessment of technical and economic feasibility of the children's project and the complex paperwork to authorize the project, the facilitators developed the second phase of the process with children. The aims were to draw the final project and to get children to participate to the implementation of some interventions directly. Following the presentation at the town hall and the gathering of comments by adults, landscape architect Anna Marelli drew a draft of the final project, which also took into account the technical and economic feasibility of the proposals (Fig. 5). The project was presented to the children, who were asked to write further comments on post its (Fig. 6). On these comments, the landscape architect drew the

final project (Fig. 7). Then the children were asked to choose the plant species to be used in the park. This was done starting from a preliminary selection of plants made by a naturalist who was involved on a voluntary basis. Between the end of 2009 and the spring 2010, the children were involved in monitoring the progress of the implementation of the project, through visits to the site and continuous updating by the facilitators (Fig. 8). In May, as the project was almost completed, the children planted aromatic herbs in some flowerbeds (Fig. 9) and organized the opening event: children wrote their speech, prepared the communication materials and wrote a letter to their schoolmates' families asking to cook traditional dishes of their country for the party. The children through a contest chose the name 'Odolandia Park'. The opening event took place on June 12th, the last day of the school year. More than three hundred people participated (Fig. 10).

Evaluation and conclusions

In May 2015, Montana was asked to present the Odolo project at the International Workshop on Waste Architecture at the Sardinia Symposium in October.

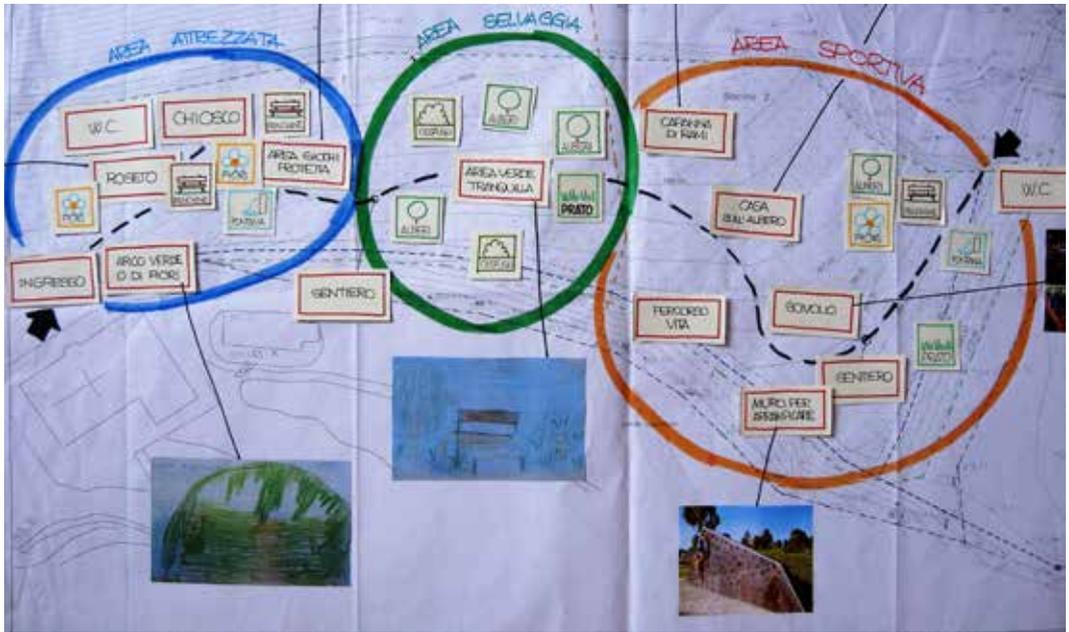


Fig. 4 – One of the very first project proposal: the park was divided into three parts: the area with recreational facilities, 'the wild area' and the area with sporting facilities (photo: Claudia Zaninelli).

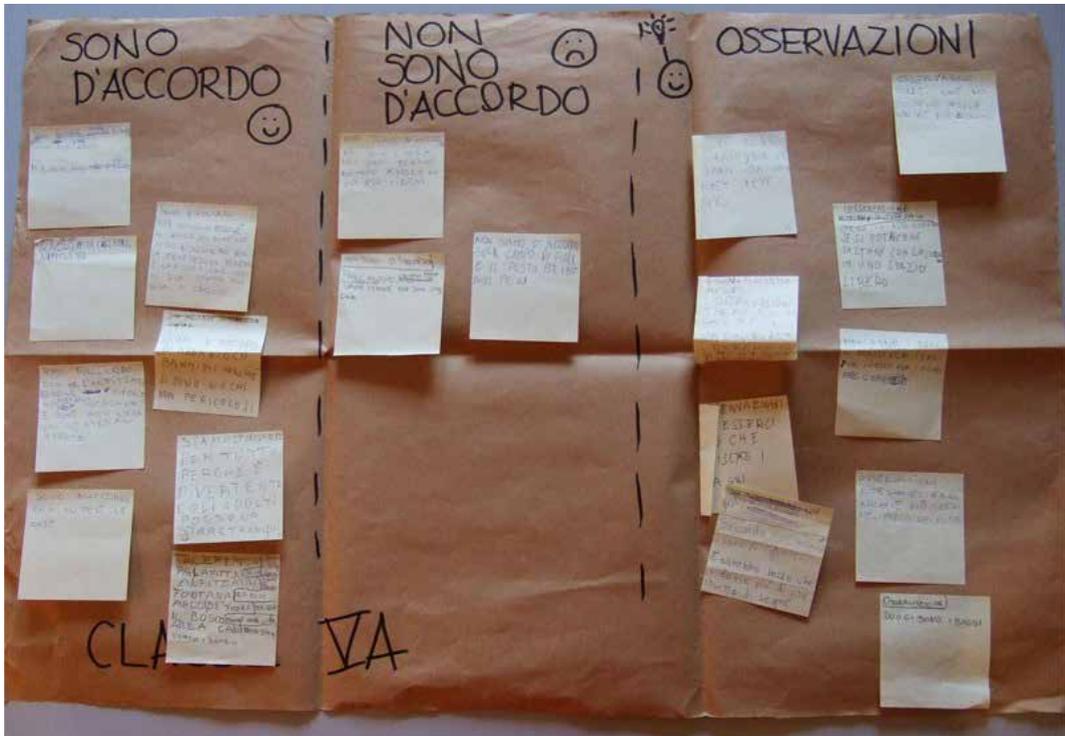
Fig. 5 – The draft of the final project (photo: Monica Vercesi).

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Fig. 6 – Children's comments on the draft of the final project (photo: Monica Vercesi).

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Fig. 7 – The final project.

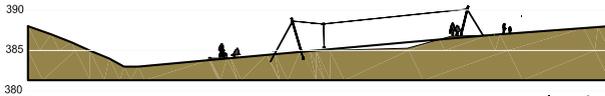


The facilitators took this opportunity to conduct a post-construction evaluation of the project with its stakeholders to assess the impact of this experience after a few years. Specifically, the goal was to evaluate the process (feelings and memories they have kept of this experience) and its outcomes (the quality of the green area and their feelings towards it).

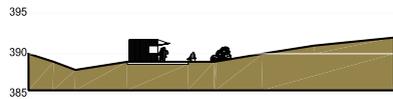
The evaluation was carried out using different tools. The school's teachers and a group of ex-students were invited to attend a town hall meeting where they were first asked to fill two questionnaires with open questions (one for the teachers and the other for the ex-students) and then discuss the results. The other stakeholders (the Mayor of Odolo, the Vergomasco CEO and the Montana landfill work supervisors) were interviewed.

In everybody's opinions, the park has always been popular since its opening, because it is well planned, located near the schools, the parish church and the town centre and well kept by Vergomasco. The

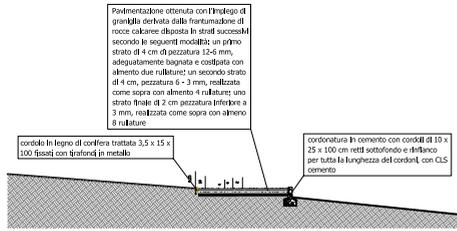
teachers appreciated the consistency between the initial objectives and the results, the methodology and, above all, the capacity of the project to involve foreign-born students and their families: «the activities were well planned and succeeded in involving all children, including the ones who didn't speak Italian very well», «the project succeeded in reinforcing the connection between children and their environment and increase their sense of responsibility towards it». The ex-students gave a high score to the project process and outcome (between 4 and 5 on a 1-5 scale). Among the main reasons cited, they wrote they were able to express their needs, desires and creativity, «to work together with our school-mates», «to be heard by adults», to see the outcomes of their work, «to feel very important» because they had done something good for their town and to be able to visit a place which they had planned and designed. Four out of six students said that the park was implemented as they had planned it.



sezione A scala 1:500



sezione B scala 1:500



particolare sentiero scala 1:10

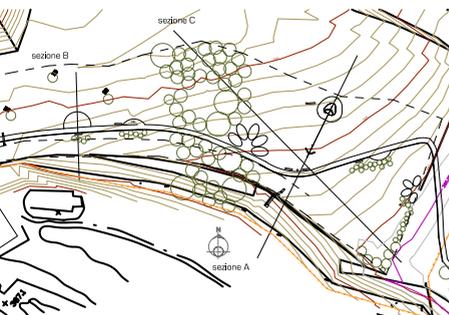


sezione C scala 1:500





04	revisione progetto preliminare	05/06/09	A.M.	P.S.	L.N.
03	revisione progetto preliminare	18/05/09	A.M.	P.S.	L.N.
02	revisione progetto preliminare	28/04/09	A.M.	P.S.	L.N.
01	revisione progetto preliminare	06/03/09	A.M.	P.S.	L.N.
REV.	DESCRIZIONE	DATA	DISEGN.	CONTROL.	APPROV.



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		Control.	P.S.
Committente	VERGOMASCO S.C. A R.L. Via Pontida n.1, Brescia	Approv.	L.N.
		Sc. plot.	1:1
Progettisti	Dott. Arch. Anna Marelli Dott. Arch. Monica Vercesi Dott. Arch. Claudia Zaninelli	Scala	1:500
		Tav.	02
Oggetto	PROGETTO PRELIMINARE PARCO SULLA DISCARICA VERGOMASCO		
Tavola	PLANIMETRIA E SEZIONI		
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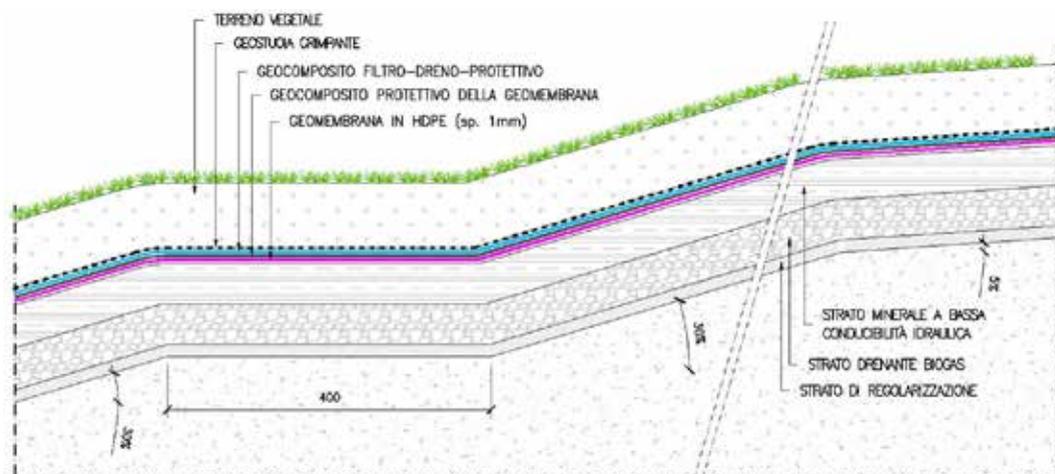


Fig. 10 – The opening ceremony (photo: Claudia Zaninelli).

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Fig. 8 – The soil layers over the landfill.

Fig. 9 – The children plant the aromatic herbs (photo: Monica Vercesi).



The negative aspects of this experience are nearly non-existent. The Mayor said that this experience was a great opportunity for their town and he really appreciated the way children had committed themselves to the project. There have been a few episodes of vandalism, but they were less frequent than in other green area. The only problem they had, at the beginning, was the custom-made slide (the bottom filled with water when it rained), but then they solved it. While the Vergomasco CEO said that was an «extremely positive experience, to be repeated as soon as the economic situation will allow it». The landfill work supervisors said that the participation of children succeeded in lowering the conflicts with some people who lived around the site. Even though the group of stakeholders involved in the evaluation was not truly representative¹, the results confirmed that the project's aims were almost reached.

In conclusion, we can say that when evaluating the success of the Odolo project several factors should be considered. Children's involvement should start only when there is high potential for project's implementation, i.e. decision makers are truly committed to the project and the appropriate funding for planning and implementation is available. In the project's initial phases, children should be informed about their role in the process; they should

understand the characteristic of the site and take into account its main environmental and regulatory constraints. It is very important that children are not given the impression that anything can be built on the site without constraints: idea feasibility is a very important aspect of the planning process and it will help them feel that their contribute is taken seriously. Therefore, if some of their proposals are not feasible children will have to be informed about the reasons (Illtus and Hart, 1995; Unicef Insight, 2005). Children should be involved in the planning process as well as in the implementation of the project, even though it is a small part. This will increase their sense of ownership and responsibility towards the project.

Endnotes

¹The primary schoolteachers were asked to get in touch with the ex-students, but it was not an easy task. Specifically no foreign-born students participated in the evaluation.

References

- Amodio L., Majorano C., Riccio C. (ed.) 2001, *I bambini trasformano la città*, Ministero dell'Ambiente e della Tutela del Territorio, Rome, Istituto degli Innocenti, Florence.
- Baldoni A. et al. 2004, *Future città, nuovi cittadini*, La Mandragora, Imola.
- Balducci A. 1994, *Progettazione partecipata fra tradizione e innovazione*, «Urbanistica», vol. 103, pp. 113-116.
- Bellaviti P. 1994, *Una mappa delle nuove esperienze italiane: origini, autori, metodi e tecniche*, «Urbanistica», vol. 103, pp. 92-104.
- Bishop J. 1995, *Bambini disegnatori e progettisti*, «Paesaggio urbano», vol. 3, pp. 54-59.
- Bishop J. 2015, *The craft of collaborative planning*, Routledge, New York-London.
- Castiglioni B. 2009, *Education on landscape for children*, Secretariat document, Cultural Heritage, Landscape and Spatial Planning Division, Council of Europe, Strasbourg.
- European Environmental Agency (EEA) 2016, "Prevention of hazardous waste in Europe" Report n. 35.
- Driskell D. 2002, *Creating better cities with children and youth*, Earthscan, London.
- Ferraresi G. 1994, *La costruzione sociale del piano*, «Urbanistica», vol. 103, pp. 105-112.
- Hart R. 1997, *Children's participation*, Earthscan, New York.
- Iltus S. Hart R. 1995, *Participatory planning and design of recreational spaces with children*, «Architecture & Compòrtment/Architecture & Behaviour», vol. 10, n. 4, pp. 361 - 370. Istituto Superiore per la Protezione e la Ricerca Ambientale (ISPRA) 2016, *Rapporto Rifiuti Speciali*.
- Lavagetti C. 2014, *The management of local issues in environmental permitting and E.I.A.*, «4th International Conference on Industrial and Hazardous Waste Management», 2nd-5th September, Crete.
- Livezey E.T. 1980, *Hazardous Waste*, «The Christian Science Monitor», November 6th.
- Lombardo S. (ed.) 1998, *La guida alle città sostenibili delle bambine e dei bambini*, Ministero dell'Ambiente, Roma.
- Lorenzo R. 1998, *La città sostenibile. Partecipazione, luogo, comunità*, Elèuthera, Milan.
- Lorenzo R. 1995, *La città dell'infanzia: parole, programmi, partecipazione, ricerche e, speriamo, progetti concreti*, «Paesaggio urbano», vol. 3, pp. 16-21.
- Nimby forum 2018, *XII Rapporto dell'Osservatorio*, <http://www.nimbyforum.it/>.
- Pedrocco G. 2000, *Bresciani: dal rottame al tondino. Mezzo secolo di siderurgia (1945-2000)*, Jaca Book, Milan.
- Società Montana 2009, *Relazione sul progetto preliminare per la riqualificazione dell'area della discarica Vergomasco*, unpublished.
- Società Montana 2008, *Relazione sul percorso partecipato per la riqualificazione dell'area della discarica Vergomasco*, a. s. 2007-'08, unpublished.
- Società Montana 2008, *Relazione sul percorso partecipato per la riqualificazione dell'area della discarica Vergomasco*, a. s. 2008-'09, unpublished.
- Unicef Insight 2005, *La città con i bambini, città amiche dell'infanzia in Italia*, Unicef.
- Vercesi M. (ed.) 1999, *Milano, il quartiere Adriano: gli abitanti "progettano" la città*, Istituto di Ricerca Ecopolis, Franco Angeli, Milan.
- Vercesi M. 2005, *Il progetto di riqualificazione a verde urbano dell'ex-area dell'Italcementi nel quartiere di Borgo Palazzo a Bergamo*, in *Aree dismesse e verde urbano. Nuovi paesaggi in Italia*, ed. Leone U., Patron, Bologna.
- Vercesi M. 2006, *Riqualificazione di un giardino scolastico: un esempio concreto di sostenibilità ambientale*, «Ufficio Tecnico», vol. 3, pp. 78-83.