

Participative study of the living environment

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«Understanding perceptions of landscapes through public involvement »

In environmental impact assessment it appears that the landscape as it is perceived by the local people is not well analyzed. The reason for this is the enormity of the task: how can one take account of such subjective information during the planning and design stages of a project?

How can such a concept be integrated into an established design process which insists on data being considered “factual”? Egis considered this question and began a research partnership combining its environmental engineering expertise with the socio-psycho-social and socio-environmental research developed by the University of Nimes¹.

Context

The European Landscape Convention ratified in Florence in 2000 defines the landscape as “*An area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors.*” This definition emphasizes the importance of people’s perception of their landscape, a concept that is the focus of specific environmental psychology studies.

Meanwhile, the landscape is a specialist area of study undertaken by landscape architects when undertaking environmental impact assessments. It does not encompass the concept of landscape “perception and of heritage” of local people. The difficulty to understand precisely the link between people and their land is one of the greatest shortcomings of current studies. In fact, certain landscape features are of such importance that the desire to preserve them is strong in such a way that they can be a risk to a project and should be made known to developers. It is therefore important to identify which features the local population considers of value, in a consensual, independent and professional manner.

What are the principles of this approach?

The “participative study of the living environment” combines mapping with an environmental psychology questionnaire, based on a classification of landscape values. The values have their origins in the works of Brown & Reed (2000) and Brown and Raymond (2007), whereby 13 “Landscape Values and attachments to place” were identified, including:

- aesthetic value,
- recreation value,
- biodiversity value,
- life supporting value,
- economic value,
- earning value,
- historic value,
- cultural value,
- future value,
- intrinsic value,
- spiritual value,
- therapeutic value,

The questionnaire survey is targeted at local residents. The places which the residents attribute their values are noted and weighted in a landscape value map. The questionnaire, which is adaptable for each study area can be put to use on any computer system (website, dedicated or not, social networks, etc.). These survey platforms can also evolve depending on the needs of the client. It is the combination of a participatory approach and the use of computer tools that bring together qualitative and geo-referenced data (in a Geographical Information System, GIS) that lays the originality of the method.

What results are obtained from the field?

In order to fine tune the methodology, the opportunity to test it in the town of Fleurines was taken. The town was not directly concerned by a project, but was ready to test the usefulness of the method and its conclusions.

The questionnaire was opened online for a restricted period of time (one month), and an announcement was made in the local newspaper publicizing the approach.

7% of the population of Fleurines undertook the questionnaire on the dedicated website which gathered a large amount of interesting information concerning the perception of the local area covering all the different types of values. Rapidly, certain areas were identified as having a symbolic importance and attachment, something that is difficult to identify from a classic survey.

These areas were then highlighted in a landscape character map.

What type of project is this approach aimed at?

The first objective was to offer planners/developers a better understanding of their local areas in all their dimensions to ensure project feasibility. In addition, the second objective was to not be limited by the number of people using the survey: to have potentially all the residents participate, thanks to an internet interface. This participative approach can be totally independent or complimentary to project studies being undertaken in parallel. What’s more this methodology allows a project to be co-developed/constructed with local people because the data is geo-referenced, stored for long duration and easily accessible at any moment during the project. These factors mean that the methodology is well received by its users.

The methodological principles are such that they can be used on any type of project : urban, industrial, transport infrastructure,...

Application of the approach in the town of Fleurines (Oise)

The local participative living environment approach was tested on the rural town of Fleurines (population of 1800) in the Parc naturel regional “Oise-Pays de France”, 50 km north of Paris. In this rural town, in a clearing within the forêt d’Halatte, responses to the study were collected at the end of 2013 via a dedicated internet website created by Egis.

Questioned about the landscape and environmental quality values they hold for different areas in their commune, the local residents developed a map of values for their town.

Mapping of landscape values by the residents of Fleurines

For each value, a map was created (figure 1). It enabled the values to be localized within the study area as well as showing the frequency of views expressed. To give more “legibility” to the results, the map can be accompanied by photos representing the landscape values identified.

In the example given (figure1), the map shows the location of sites and areas which hold a “spiritual and therapeutic” value. The results show that, for the Fleurinois, the “forêt domaniale d’Halatte” was valued for its spiritual and therapeutic characteristics and is the most frequently cited value.

Other areas held this value but valued was less intensely: these include “la butte de Saint Christophe”, the swimming pool and its surrounds (known as “La Montagne”) and the “Mont Pagnotte (forêt d’Halatte).

Secondly a summary map of landscape values is developed (figure 2). It groups together all the data collected and shows, at a landscape scale, the values of the local area. The “sensitivity” map shows the diversity of public perception and at the same time shows those considered of greatest value to the residents.

In the example given (figure 2), the participants stated particularly that they were attached to two sites : la butte de Saint-Christophe, a high-point of the commune with 360° views of the forêt domaniale d’Halatte. However the values perceived at these two sites are very different: the butte de Saint-Christophe is principally cited for its esthetic value whereas the forêt d’Halatte was valued for a range of values with large homogeneity.

In addition, the participation of local residents enabled the precise identification of areas of perceived degradation (located noticeably around the equestrian farm for example) and gave lots of new information concerning areas, previously non-identified, which had numerous values associated with them (esthetic, recreational, heritage, educational, etc.).

The reoccurrence of replies enables development of a hierarchy of risks which can be used to formulate recommendations for future management: link together the different recreational areas of Fleurines, preserve particular sites in the forêt d’Halatte and views from the butte de Saint-Christophe, redevelop the degraded area around the equestrian farm, etc.

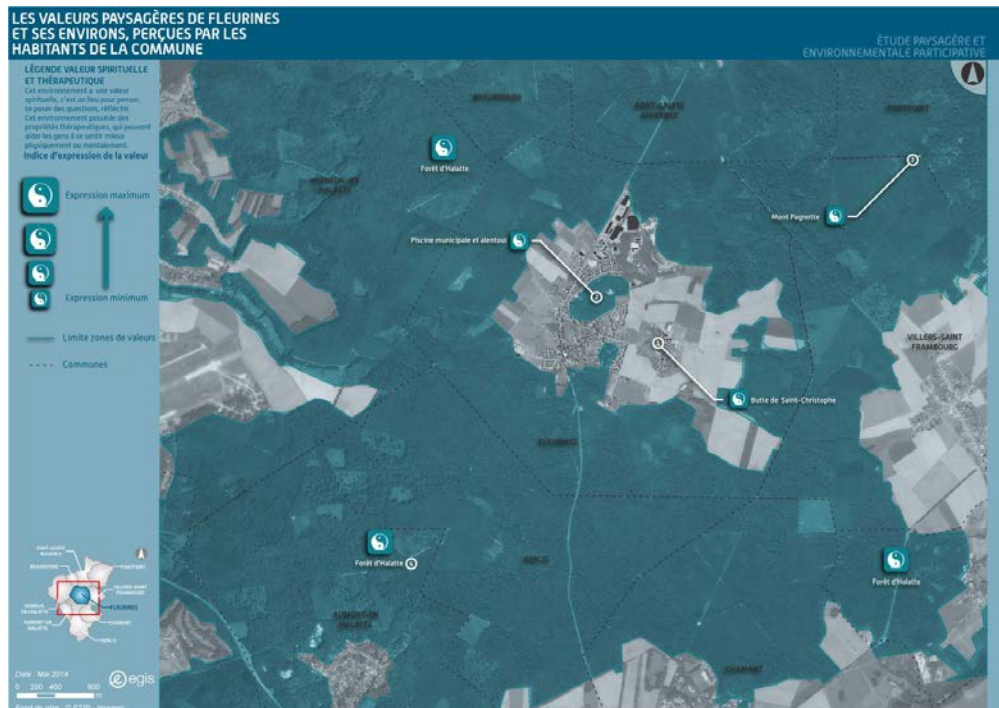


Figure 1: Sensitivity map show the sites/areas holding a “spiritual or therapeutic” value for the residents of Fleurines.

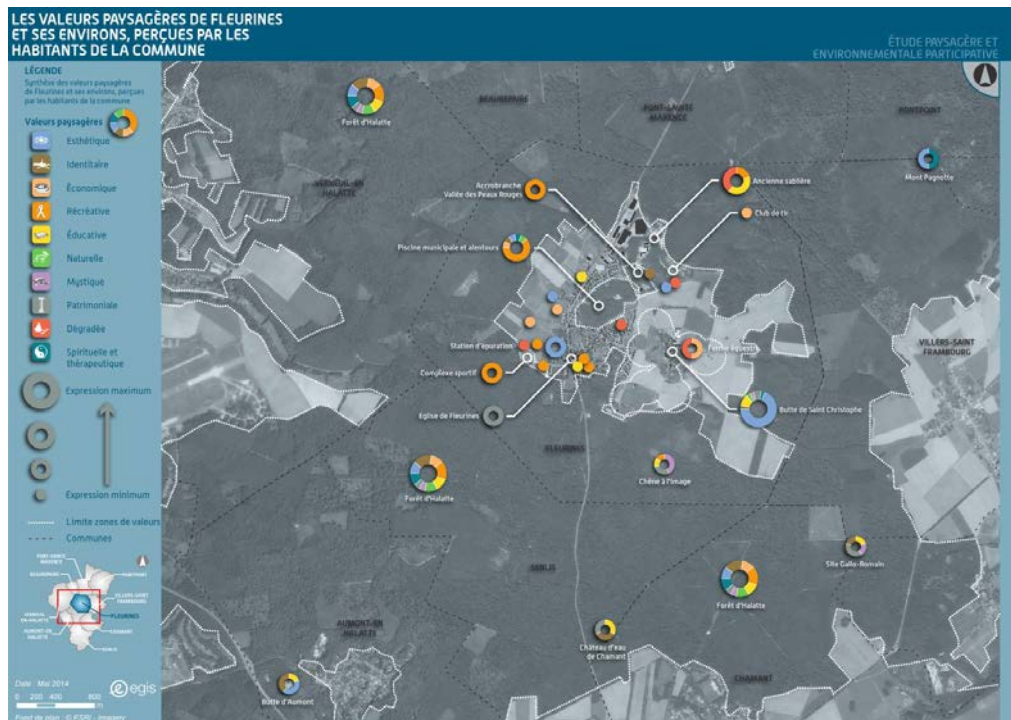


Figure 2: Sensitivity summary map of landscape values of the Fleurines residents.

Conclusion

The advantages of the method are:

- It precipitates the local social perceptions and feelings held by individuals via a set of landscape values (esthetic, spiritual, recreation values...).
- Enables community involvement throughout a project by its participatory nature.
- The technique is compatible and adaptable to all types of project at multiple stages and at multiple spatial scales.

References

[¹] Lopez A. (2013) Enjeux psychosociaux des grandes infrastructures de transport. U.F.R. de Psychologie et Sciences de l'éducation, Aix-Marseille University – University of Provence/University of Nîmes.