

## **How to bridge the gap between EIAs and HIAs?**

### **The case of Saint-Vincent-de-Paul eco-neighborhood in Paris**

Federica Appendino, PhD Candidate at Paris-Sorbonne and Politecnico di Torino

#### **1. Introduction**

Over the last decades, the interest in impact assessment tools has grown internationally. In the field of environmental planning, Environmental Impact Assessment (EIA) are considered one of the most important tools to ensure sustainable development (Bottero and Mondini 2009; Glasson et al. 2005). EIAs may take into account all environmental assets, including cultural heritage ones. Cultural heritage can be defined as “the present manifestation of the human past” (World Bank 1999) and plays a fundamental role in the sustainable development process, contributing to social, economic, and environmental goals (UNESCO 2014).

However, many authors have stressed that cultural heritage issues tend to be poorly dealt with in EIAs (Table 1). To address this gap, the heritage community has recently introduced a specific assessment procedure: the - Heritage Impact Assessment (HIA), developed within the framework of EIAs (Seyedashrafi et al. 2017). To date, only a limited number of scientific publications have referenced HIAs, and it is still one of the weakest components of EIA studies (Pereira Roders et al. 2013).

This paper aims to discuss the limits of EIAs by presenting a specific case study: the Saint-Vincent-de-Paul eco-neighborhood in Paris, where heritage conservation goals coexist with sustainability ones. The paper then explores potential means of incorporating HIAs in EIAs.

#### **2. From EIAs to HIAs: the need to improve heritage consideration in impact assessment**

The limits of EIAs are well-known among academics and practitioners, particularly as regards cultural heritage consideration (Langstaff and Bond 2004; Appendino and Giliberto 2018). From an academic perspective, there seems to be consensus on the need to improve heritage consideration in EIAs.

The literature review reveals that the consideration of heritage in EIAs is generally weak (Bond et al. 2004; Langstaff and Bond 2004; Fleming 2008; Fleming and de Jesus 2008; Vakhitova 2010; Pereira Roders and Hudson 2012; IAIA 2015). In particular, its effectiveness, completeness, and quality must be improved (Fleming 2008; Pereira Roders et al. 2013). EIAs mostly focus on tangible heritage and on the built environment, providing limited attention to the intangible aspects of cultural heritage (Bond et al. 2004; Langstaff and Bond 2004). In addition, there is a lack of specific guidance (Bond et al. 2004; Pereira et al. 2013; Seyedashrafi et al. 2017), as well as discrepancies among different countries (Langstaff and Bond 2004). Cultural heritage presumably requires greater stakeholder involvement and earlier consideration (Bond et al. 2004).

Acknowledging the limits of EIAs, the heritage community has realized that heritage must be addressed through a specific impact assessment methodology. Consequently, it has advocated and explored HIAs. An HIA is a tool to identify and assess the impacts of proposed development projects on cultural heritage, and support “a better protection and management of the heritage assets” (Seyedashrafi et al. 2017).

In 2011, the International Council on Monuments and Sites (ICOMOS) published its “Guidance on Heritage Impact Assessment for Cultural Heritage Properties,” which is arguably the most important reference in the field (Appendino et al. 2016). The document—addressed to managers, developers, consultants, and decision-makers (ICOMOS 2011)—aims to anticipate and evaluate the impacts of potential development projects on cultural heritage, thus avoiding risks to the latter’s integrity and authenticity (Appendino and Giliberto 2018). Based on EIA methodology (Pereira Roders and Hudson 2012), the tool is designed to provide a holistic approach to HIAs without evaluating impacts separately, as is the case with EIAs (Angrisano 2015).

Even though ICOMOS's HIA is innovative and represents a significant step forward, HIAs are largely unknown, and the associated evaluation tools are underutilized (Appendino and Giliberto 2018). In addition, the proposed HIA focuses only on World Heritage sites to evaluate the impact of potential development on Outstanding Universal Value (ICOMOS 2011), and recent studies have pointed to a number of critical issues (Angrisano 2015; Appendino et al. 2016). In particular, it has been argued that HIAs generally allow for subjective interpretation (Appendino et al. 2016) and that there is a lack of detailed criteria for the selection of the cultural heritage attributes to be evaluated (Angrisano 2015).

This paper presents an adaptation of ICOMOS's HIA that aims to bridge the gap between EIA and HIA procedures through a case study of the Saint-Vincent-de-Paul eco-neighborhood in Paris.

### 3. Research methods

This research is based on a specific case study: the Saint-Vincent-de-Paul eco-neighborhood in Paris. With an ancient hospital complex characterized by important and diversified architectural heritage assets ranging from the 17th to the 20th century, Saint-Vincent-de-Paul represented a reference point for the entire city until its decommissioning in the early 2000s. Currently occupied by different local associations, it was acquired by the municipality of Paris in 2014 and will be transformed into an eco-neighborhood to conserving and protecting the urban heritage. The entire project area is listed as an "inscribed site" (*ensemble urbain à Paris*), and its most ancient building, an ex-oratory is protected by the so-called City of Paris Protection plan (*Protection Ville de Paris* or PVP).

The project is ambitious, particularly from an environmental point of view (Ville de Paris 2016): the future eco-neighborhood will be sustainable, green, energy-efficient, and socially affordable. In accordance with the current legislation, an EIA was conducted to identify, predict, and evaluate the environmental impacts of the rehabilitation project proposal (Ville de Paris 2016). However, the first EIA presented in 2014 was rejected by the National Environmental Authority because it did not properly consider impacts to heritage and landscape. Thus, a new EIA was conducted and approved in 2016.

Although the results of the revised EIA were generally positive in regard to heritage, some critical gaps could be identified: the assessment neglected intangible aspects of cultural heritage, and it focused only on the built environment and outstanding objects that were already protected. Moreover, many issues concerning heritage that were raised during the consultation procedure (Ville de Paris 2015) were not considered: for instance, the chimney—a relevant heritage element and important neighborhood landmark—was set to be demolished.

The above suggests that the submitted EIA did not adequately consider all the relevant cultural heritage attributes. An ad hoc HIA was therefore carried out to highlight the EIA's limits. This HIA is partially based on ICOMOS's methodology, as well as on other recent studies (Sagnia 2004; Angrisano 2016; Seyedashrafi et al. 2017). It identifies four types of cultural heritage properties: 1) archaeology, 2) built heritage, 3) historic urban landscape, and 4) intangible cultural heritage or associations (all types are adapted from ICOMOS's 2011 HIA guidelines). According to ICOMOS, the value of the asset, the magnitude of the impacts, and the significance of the effect of change (adverse or beneficial) may be ranked, as illustrated in Figure 1.



Figure 1. Assessment ranks according to ICOMOS 2011. Source: Appendino et al. 2016.

The information required for the assessment was derived from a variety of sources: the adopted EIA (Ville de Paris 2016) and interviews with key actors, as well as on-site surveys, urban plans, and relevant literature (notably, the historical studies of GRAHAL 2013, TAUW 2014, and APUR 2009).

#### 4. Results and discussion

The first step of the ad hoc HIA concerned the assessment of the heritage values for each of the four categories. Following ICOMOS's guidelines, the assessment was conducted as objectively as possible.

The second step of the HIA addressed the potential impacts of the project. These were divided into direct and indirect, temporary and permanent. Visual, physical, social, and cultural impacts were considered. Based on these results, the nature and magnitude of the changes were determined. Impacts were categorized according to their significance: they ranged from yielding major change to yielding no change, and from being beneficial to being adverse.

The third step of the HIA proposed mitigation and valorization strategies; these were meant to compensate and reduce negative impacts, and to promote positives ones.

	Value	Direct Impact	Indirect Impact	Effect of Change	Mitigation Strategies	Valorization Strategies
1. Archaeology	<u>High</u> Archaeological area status ( <i>zone 1634</i> )	<u>No change</u>	<u>No change</u>	<u>Neutral</u>	Preventive measures during the yard phase	Preliminary studies
2. Built Heritage	<u>High</u> Historic buildings (1600–1900) Most ancient building (i.e., ex-oratorio) protected by the PVP plan	<u>Moderate change</u> Not all historic buildings maintained ( <i>Chaufferie</i> and chimney) Potential damage and deterioration Potential loss of authenticity caused by super-elevations Energy retrofitting	<u>No change</u>	<u>Negligible beneficial</u>	Energy retrofitting of historic building guidelines Design changes Consultation with local population	Dissemination of knowledge related to heritage assets Guided tours
3. Historic Urban Landscape	<u>Very high</u> Entire project area listed as an “inscribed site” ( <i>ensemble urbain à Paris n. 7497</i> ) Partially included in other conservation areas	<u>Moderate change</u> Tall buildings envisaged in the central part of the neighborhood Impacts on visual integrity Potential loss of aesthetic value	<u>Negligible change</u> Potential impacts on townscape characteristics	<u>Minor adverse</u>	Design changes Visual impact assessment methodologies	-
4. Intangible Cultural Heritage or Associations	<u>Medium</u> 100 local associations Memory and identity Residents' attachment	<u>Moderate change</u> Local associations not maintained	<u>Moderate change</u> Local associations not maintained	<u>Major adverse</u>	Consultation with local population Feasibility study for safeguarding associations	Dissemination of knowledge related to associations' activities

Table 1. Ad hoc heritage impact assessment (short summary).

The results of the ad hoc HIA carried out in this study (Table 1) were partially different from the approved EIA's findings in terms of both values and impacts. In particular, the ad hoc HIA revealed a predominantly negative impact on heritage, while the approved EIA affirmed that the overall impact was positive. This might be due to the lack of detailed, shared criteria for the objective evaluation of heritage attributes (Appendino et al. 2016; Angrisano 2015).

Focusing specifically on cultural heritage, this impact assessment considered both tangible and intangible attributes, providing a comprehensive evaluation of the project's overall impact on the authenticity and integrity of the heritage. In addition, based on historical studies and surveys of the local population, the assessment focused not only on outstanding objects—as the approved EIA did—but on cultural heritage in the broad sense of the term. These different focus areas would presumably lead to different project choices.

## 5. Conclusion

This paper has reviewed the limits of EIAs in assessing impacts on cultural heritage, and it has emphasized the potential of specific tools such as HIAs. By discussing the case of the Saint-Vincent-de-Paul eco-neighborhood in Paris, it has underlined the importance of adequately considering cultural heritage in EIAs to ensure a holistic assessment of the impacts that a development project may have on the existing urban environment.

Results suggest that EIAs must be honed to consider projects' impact on tangible and intangible cultural heritage in greater detail; in addition, HIAs must be rendered more effective, since they are still relatively unknown and underutilized (Appendino and Giliberto 2018).

## 6. Bibliography

Angrisano M. 2015. "Economic heritage impact assessment" as a tool for evaluating the impacts on the great requalification project of the coastal cities, Unesco sites. The case study of Torre Annunziata, in the gulf of Naples. *Territorio Italia*, 2.

Appendino F. e Giliberto F. (2018). Toward a cultural ecology in urban environments: new challenges for impact assessments. *Integrated Evaluation for the Management of Contemporary Cities. Results of SIEV 2016. Green Energy and Technology*. Berlin : Springer Publisher.

Appendino F., Giliberto F. and Labadi S. 2016. The Role of Environmental and Heritage Impact Assessments in Liverpool World Heritage site. *Valori e Valutazioni*, 17, pp. 57-72.

APUR. 2009. *Hôpital Saint Vincent de Paul. Premiers éléments d'analyse*.

Bond A. and Teller J. 2004. The consideration of cultural heritage in present European environmental policies. *SUIT-Guidance for the Environmental Assessment of the impacts of certain plans, programmes or projects upon the heritage value of historical areas, in order to contribute to their long-term sustainability*. Research report 16.

Bond A., Langstaff L., Baxter R., Wallentinus H., Kofoed J., Lisitzin K. and Lundström S. 2004. Dealing with the cultural heritage aspect of environmental impact assessment in Europe. *Impact Assessment and Project Appraisal*, 22(1), pp. 37-45.

Bottero M. and Mondini G. 2009. *Valutazione e sostenibilità. Piani, programmi, progetti*. Torino: Celid.

Fleming A. 2008. Standards of international cultural and financial institutions for cultural heritage protection and management. *IAIA 2008 proceedings*.

Fleming A. and Jesus. 2008. Annual IAIA Conference - International Association for Impact Assessment Workshop on "Cultural heritage and impact assessment".

Glasson J., Therivel R., Chadwick A. 2005. *Introduction to Environmental Impact Assessment*. London: Routledge.

GRAHAL. 2013. *Hôpital Saint-Vincent-de-Paul, Étude historique et documentaire*.

Hassler U., Algreen-Ussing G., Kohler N. 2004. Cultural Heritage and Sustainable Development in SUIT. *SUIT-Guidance for the Environmental Assessment of the impacts of certain plans, programmes or projects upon the heritage value of historical areas, in order to contribute to their long-term sustainability*. Research report 16.

- IAIA. 2015. *Cultural heritage component of impact assessment. Methods, issues and application of new technologies*.
- IAIA. 2009. *What is impact assessment?*
- ICOMOS. 2011. *Guidance on Heritage Impact Assessments for Cultural World Heritage Properties*.
- Langstaff L. and Bond A. 2004. The consideration of cultural heritage within EIA practice throughout Europe. *SUIT-Guidance for the Environmental Assessment of the impacts of certain plans, programmes or projects upon the heritage value of historical areas, in order to contribute to their long-term sustainability*. Research report 16.
- Pereira A. 2013. Monitoring cultural significance assessments. *IAIA13 Conference Proceedings "Impact Assessment the Next Generation"*, Calgary Stampede Centre, Alberta, Canada, 13-16 May 2013.
- Pereira A., Bond A., Teller J. 2013. Determining effectiveness in heritage impact assessments. *IAIA13 Conference Proceedings "Impact Assessment the Next Generation"*, Calgary Stampede Centre, Alberta, Canada, 13-16 May 2013.
- Pereira Roders A. and Hudson J. 2012. *Change Management and Cultural Heritage*. In E. Finch (Ed.). *Facilities Change Management*. Chichester: John Wiley & Sons.
- Seyedashrafi B., Ravankhah M., Weidner S., Schimdt M. 2017. Applying Heritage Impact Assessment to Urban Development: World Heritage Property of Masjed-e Jame of Isfahan in Iran. *Sustainable cities and society*, 31.
- UNESCO. 2014. *Culture for Sustainable Development: Sustainable Cities*.
- Vakhitova T. 2010. Cultural Heritage in Impact Assessment Tools: challenges and opportunities. *IAIA10 Conference Proceedings "The Role of Impact Assessment in Transitioning to the Green Economy"*, International Center Geneva, Switzerland, 6-11 April 2010.
- Ville de Paris. 2016. *Dossier de création de la ZAC Saint-Vincent-de-Paul. Etude d'Impact Environnemental*.
- World Bank. 1999. Cultural Heritage in Environmental Impact Assessment. *Environmental Assessment Sourcebook Update*, 8.