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Ambiance Narrative Design as an Innovation Tool

The Boundary Object Concept and Applied Case Study

Laurent LESCOP¹, Eric STEVENS²

Abstract. As *ambiance narratives* offers a unique way to combine representations concepts and perceptions of the multiple actors involved in the creation process, this paper assumes that their systematic use as a boundary spanning mechanism, may contribute to both creativity in the design and to the overall fit with the expectations of the actors of the ecosystem. The use of *ambiance narratives* remains to be explained in such a context as the way they are designed, the process by which they are shared, interpreted and used by the different stakeholders in order to span boundaries has not been explored by research. Based on the case study observations and on the theory of boundary objects and boundary discourse, a new development method is proposed where innovation involves heterogenic stakeholders.

Keywords. *Boundary Object, Narrative Design, Innovation, Ambiance, Hostellery*

Innovation and Architecture

Track 1 : New sensitizations

Architecture is seen as a creative activity, yet the question of innovation in the industrial sense of the term is less present in the literature. Architecture is being assimilated to the creation of prototypes (except perhaps for housing), the distinction between a circumstantial innovation and a global innovation becomes a real subject in itself. In the industrial world, there is an abundance of literature, some examples of which will be given below. In the world of architecture, the diversity in the size of firms makes a global approach difficult. However, the emergence of digital technology has had a strong impact, perhaps less in formal innovation (Picon, 2010) than in the organisational process of firms. In the world of architecture, the diversity in the size of offices makes a global approach difficult. However, the emergence of digital technology has had a strong impact, perhaps less in formal innovation (OECD/Eurostat, 2018) than in the organisational process of firms. Over the last ten years or so, we have seen how BIM, by establishing an organisational model, has turned the life of firms upside down. In the text that follows, we will describe what appears to us to be another type of innovation in the organisation process and which concerns the design of an innovative hotel experience. The innovation would lie not only in the creation of the project itself, but in the articulation of the different phases from the definition of the object to its valorization in social networks, through design, realization, marketing and promotion.

To describe this innovation, we rely on the concept of the *boundary object* and will try to show that it takes a form that we did not anticipate at the beginning of the experiment.

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Notions and References

To manage a project, architects shall overcome barriers established in between each organization, and sometimes within the organization in between its different departments (Carlile, 2002). This issue may be particularly important when the ecosystem is made of heterogenic actors, having different and sometimes divergent concerns and issues. Notably in the case of Public and Private actors being associated in the new building project, long term decisions versus short term reactivity, general interests of citizens versus private profitability, collective decision making versus centralized decision making may lead to misunderstanding or to decisions that do not correspond to the objective of providing innovative design. Thus, **boundary spanning issues** should be considered as an efficient leverage in supporting the capacity to co-create innovative offerings. Four mechanisms may be considered as contributing significantly to boundary spanning: role of boundary spanners (Brown and Duguid, 1998), contribution of boundary objects (Star and Griesemer, 1989), use of boundary discourse and of boundary practices (Rezazade and Hawkins, 2012). Among the four mechanisms, the boundary objects and boundary discourse or narratives deserve more attention in the specific context of architectural innovation and our sensitive experiences are then addressed.

Narratives is a linguistic form used to share and to give sense to individual experience. It is constructed around a plot in which sub-narrative elements, such as events, actors and elements of context, are linked causally to each other (Elliott, 2005). This chain of interlinked events convey description as well as explanations and contributions of the main characters involved. By doing so, they support the sharing of knowledge, the potential role of each stakeholder, the sense of each contribution and result into boundary spanning effects. However, the process by which narratives may be turned into boundary objects and by so used as development tools deserves further investigation.

Research Question: Narrative Design as a Creative Development Process

As we have described, the main issue is to ensure consistency between the concepts, representations and perceptions of all the stakeholders involved in the development process. We believe that storytelling offers a unique and very effective way to both unite a team and release the creativity brakes (Elliot, 2005). The idea being advanced here is that the use of narrative as a systematic process of spanning the boundaries of shared creativity during the design phases and sustaining it over the life of the project concept. The overall adequacy between the initial request and the final proposition is held by all the actors of the eco-system: from the architect to his teams, from the architect's teams to the companies in charge of assisting in the design and realization, then to the managing client, then from the managing client to his own teams, from the teams to the final client and finally, from client to client via building a reputation. At each of these stages, the story becomes the common thread. The comparison between the initial narrative and the one the client appropriates determines the success of the process. However, the use of narratives remains to be explained in such a context, as the way in which they are conceived, the process by which they are shared, and the way in which they are interpreted and used by the various stakeholders to span boundaries have not been explored by research.

Methodology/Approach

The research design involves an action research based on a longitudinal and in-depth case study and which results into the design of two buildings used today to host tourists. The case study that accompanies our reflection is the design of unusual shelters as a light hostelry. For several years now, the hotel offer has been evolving, and rather

than the anonymity of standardised rooms, some customers will prefer the appeal of a unique, almost customised experience. The request, formulated by a semi-public institution, Terre d'estuaire (SPL Loirestua), addresses the following needs: to open up territories, to offer opportunities to discover an unknown environment, to live an exceptional experience, to be in connection with the socio-economic context and to benefit from local synergies for the reception of visitors.

Similar examples exist in many places in the world, but they are very often standard objects (caravans, yurts, recycled vehicles, etc.). The brief was to create original, aesthetic, astonishing and immediately identifiable objects.



Figure 1. Left: La Bienvenueuse, Camille Aubourg, Margaux Dervaux, Cécile Dumont ; Right : Le Caballon de M. Plocq, Aurélie Poirrier, Vincent O'connor, Igor-Vassili Pouchkarevtch-Dragoche

The action research consisted in creating 7 project teams in charge of generating 7 different projects. Each of the project team had to maintain a project diary in order to record the process by which final design was produced. Then, as a development methodology, it was asked the 7 groups start the project by creating a narrative (1 per project) which was due to be inspired by the territory and should express its main features and characteristics as perceived by the group. Then the ambiance narratives produced by groups were proposed to the stakeholders. Narratives proposed were made of both texts, drawings and pictures, with a specific obligation to tell a story. During presentation, stakeholders had to react to stories, giving their perception of the story, its relevance for the territory, the interest and emotions generated, what they do not understand and what seems to be out of their concerns.

Then students had to create first concepts, meaning a definition of the guiding principles which they intend to use in order to generate the detailed elements of the project. This was presented to stakeholders who reacted according to the perceived coherence with accepted narratives and with their own objectives described above. Comments and feedback were then discussed by each group and they had to use this feedback in order to move to the following stage. Then the group had to propose a first draft of the final proposition. The obligation then was to propose a design that included the initial ambiance narratives, the guiding principles and comments and reactions of the stakeholders. Following those presentations and feedbacks, the groups proposed a final project. In our case study, 2 of the 7 projects were selected and eventually realized and implemented.

The data collected for the case research analyzes consisted mainly of multiple sources:

1. First, we gathered all narratives for each of the stages
 - from architect to manager
 - from the manager to the sales and technical teams
 - from sales teams to the end customer
 - from the customer to the customer;
2. Second, semi-structured interviews of 90 to 120 minutes conducted with the project leader was analyzed. The interview was triangulated with the project diaries ;
3. Third, notes from the participation to decision meetings were used. Each project is accompanied by a logbook which describes in detail each of the stages, the maturation work and the intermediary presentations. Each presentation seeks to bring the proposed story to life, making it tangible to the stakeholders.

Given the excellent results (The narrative generates ambiances, practices and forms that anticipate the objects' design, and fit with stakeholders concerns), the development method and story was provided to future hosts as a "rule of the game," as a customer experience guideline. All participants to decision are considered as "boundary spanners" in that they had, to interact with the other actors for the needs of their respective decision. The analysis is based on an inductive logic involving coding (category description), open (comparison, conceptualization, and categorization) and axial (assembly of contents in a grouped manner according to and based on emerging trends) (Gehman et al., 2018).

Narrative Design and Boundary Object

Main Outcomes and Results

The effectiveness of narratives may depend on how successfully it can be used to decontextualize knowledge, on the one side of a boundary, and to recontextualize it, on the other side of a boundary (Hawkins and Rezazade 2012; Corsaro, 2018). This process provided by the narratives may allow parties involved in the process of transforming knowledge across boundaries (Carlile, 2004). Further, as narratives are used as boundary negotiating artifacts along established meetings between actors from different communities (Koskinen and Mäkinen, 2009), they allowed to introduce more creativity along the development process, while observing how constraints (norms, technical, expectations...) may be included in the projects. In the case, the narrative functions as an emergence of the territory and the territory was inspiring, which anchored the narrative in the context. Further, the design was done by impregnating the narrative that federates the project's stakeholders, holds the project's orientation and serves as a translation platform for the stakeholders. The client has been present throughout the process and the narrative supported a better understanding of the decisions and options chosen by the designers.

Based on the case study observations and on the theory of **boundary objects** and boundary discourse (narratives), a new development method is proposed for all contexts where innovation involves heterogenic stakeholders having diverging concerns and issues. The development method includes the interaction process, the characteristics of narratives and their use as boundary object.

Contribution, Results and Discussion

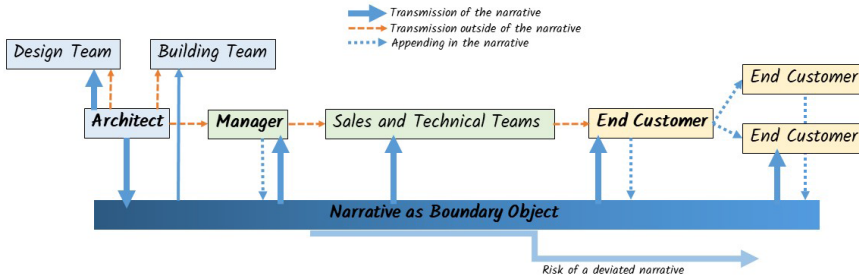


Figure 2. Narrative as Boundary object process

Storytelling as a boundary object structures all the interactions between stakeholders during the development of the project. The permanence of the narrative from conception to exploitation is proof of adhesion to this proposed narrative scheme. First, the architect designs a narrative that he shares with his design team. This narrative feeds and determines the boundary object. The construction teams also immerse themselves in this narrative to understand the general aim of their work. The manager, for his part, feeds into the story and helps to transmit it to the sales and technical teams. In the hotel industry, these are the people in charge of welcoming end customer, the people in charge of maintenance and animation. End customer themselves take ownership of the story, which then influences their experience of their stay. It is obvious here that if there is a disjunction between the narrative and the context of reception, the adhesion of the narrative (and therefore of the accommodation) will not take place. If the adhesion is successful, the host will contribute to the transmission of the narrative. It should be noted that transmissions outside the narrative also exist, they are of a financial, practical or technical kind, and these transmissions must not predominate the narrative. As each step may receive a contribution from the manager or end customer, the strength of the original story should be observed. If it drifts, it is that the story has not been endorsed (or has been poorly endorsed) because of either its weakness or the weakness of the transmission mechanism.

The use of narratives as boundary objects in the context of innovation represent an interesting theoretical development and supports the design of a specific development method. Given that very few researches were produced in context where a group of non-coordinated stakeholders are involved in the development process, such a development deserves further investigation.

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