Anne graduated in 1981 as an interpreter (E-S). In 1990 she joins an international design group and from 1991 manages their Brussels-based design subsidiary. Between 1993 and 1996 she coordinates the design development process of Thalys, the first pan-european railway initiative. In 1999 she creates Fontana identity and design specializing in the creation, development and implementation of visual identity and (corporate) branding programs on behalf of national and international organizations and brands. In 1997 she became a board member of the Belgian Institute for the Promotion of Industrial Design which in 2004 became YellowdesignFoundation.
Since 2004 she also acts as the Secretary General to Yellow design Foundation.
Between 2004 and 2007 Anne and her team at Fontana initiated and coordinated on behalf of Yellow design Foundation and with the backing of UITP (www.UITP.org), and several other international partners a research programme conducted in 6 European countries and focused on the link between perceived security and design and ultimately lead to the development of SPIN-UP (Security Perception in Intermodal Stations for Urban Public transport) methodology.
In 2010 Anne acquired from UIC on behalf of Yellow design Foundation an international research project on the design of major European interchanges with the objective of developing a toolbox to guide operators, authorities, urban planners, architects and real estate developers and other stakeholders along the process. In the Spring of 2011 Anne and her team carried out a benchmark of major interchanges in South and South East Asia. Currently Anne is developing an international research project on the contribution of mobility to low carbon cities with the backing of UN Habitat.

Next station,

Moscow, October 16 - 19th, 2013

Low carbon stations for low carbon cities

Translating a literary copy by computer can you give you a newsletter, translating a poem by computer can give a memo. Likewise, if you plan a city focussing only on bricks, walls, corners, bridges, platforms and tunnels you create pockets, islands, isolated environments, secluded areas, ghettoes.

Cities are made by and for people. Each city has its genetic code. The DNA of cities is composed of traces, memories, victories and sadness, of different layers, routes and walkways, of networks, synergies and open spaces.
When regenerating or modernising an urban space it is essential to consider the language of these human experiences, and endow them a space.

High carbon emissions and climate change affect the quality of life in most cities and regions in the world. This threat has become tangible: we are witnessing the destruction of biodiversity, shore erosion, forest fires, more extreme weather conditions and an increase of health problems linked to pollution and lack of diversity. As one of the biggest contributors to the high carbon emissions is ever growing motorized transportation of people and goods in and around large cities, causing heavy air pollution and traffic congestion, leading to losses in time and money.

Neither road expansion nor the development of new car concepts, or bus technologies in themselves can solve the problem; in fact, these strategies have to be implemented simultaneously to the development of effective non-motorized traffic, user-oriented public transport facilities and transit-oriented neighbourhoods. At Yellow design Foundation we strongly believe a transversal and multi-levelled approach is one of the keys to Low Carbon Cities.

At the very heart of a Low Carbon City is the Public Transport Interchange, a station where different transport modi are combined under one roof or in the direct vicinity. Broadly defined, this kind of station is a complex spatial structure that combines different motorized, non-motorized and rail-bound types of traffic with a city's public space. Although the term "interchange" is currently widely used for large physical areas such as central railway stations where other means of PT are available as well, the availability of a variety of transport modi should not be reserved for just these structures or spaces. In the context of low carbon cities, the emphasis lies on improving public transport at all levels, thus local public transport nodes should also be seen as important small-scale interchanges, even if they combine only one or two possible modal combinations. The strength of the system depends on the strength of it smallest element.

Making better non-motorized (e.g walking, cycling) connections to convenient stations, and improving the facilities for every transportation mode is one of the main challenges for adapting a interchange stations for a low carbon future.

Considering design is the most visible, though not the only, part of the qualities of an interchange, in this research we build on prior research conducted by Yellow design Foundation into the link between the perceived security and design of an intermodal station and extend it to other fields of expertise in order to create better synergies and performance. Former research we carried out lead to the definition of SPIN-UP (Security Perception of Intermodal stations for Urban Public Transport) an assessment methodology for public space and public transport space.

To be sure, in this respect we refer to the assumption that a well-designed interchange is also a more effective and efficient interchange that can generate different sources of activity, of energy and eventually of income to the city and its stakeholders.

The design of a new interchange station or the conversion an existing station to a structure that is more compatible with the demands of a low carbon city is a complex and multidisciplinary task. The list of technical requirements for achieving multimodality, interconnectivity, a sustainable station building and quality public space is considerable.

Equally important are the “invisible forces” and often non-measureable parts of developing an interchange, i.e. the human programming, the neighbourhood synergies and user appropriation of the site. In this respect we refer to the interpretation and perception by its users, their memories, the linguistic references, its socio-cultural context (as stated by Nijs and Daems, in “And What if the Tangible Were Not, and Vice Versa? On Boundary Works in Everyday Mobility Experience of People Moving Into Old Age”, published in Space and Culture 2012). The user acceptance and interaction with the interchange will co-define its success as a semi-public space.

Putting the user and his needs first is therefore an essential criteria in the process of creating a low carbon interchange, regardless of the local urban context or economic power.

So far we have carried out quick-scan desk research as part of the first stage in the development of a practical toolbox of recommendations on how to retrofit existing and design new interchanges taking both human-oriented (“software”) and technical (“hardware”) aspects of sustainability and low carbon city in general.

The desk research provides a concise overview of theories, technical and design approaches and best practice examples. For every quick-scan desk research chapter we have compiled a list of relevant indicators, strategies, initiatives, actions and methods to develop or achieve them.

The sources list includes work of acknowledged scholars and practitioners, reports of governmental or public transport related organisations, and policy documents.

Anne Leemans, Yellow design Foundation

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