SPIN-UP

Design & Human engineering of urban public (transport) space

ydesignfoundation

What is SPIN-UP?

SPIN-UP is a methodology that assesses and improves the quality of public space and public transport space.

In early 2004 we started defining the research project that would endeavour to explore the mechanism and boundaries of perceived security as well as the link between perceived security and design in transit zones of inter-modal stations of urban public transport. This ultimately resulted in the conception and development of the SPIN-UP (Security Perception in Inter-modal Stations for Urban Public transport) methodology.

Our major concern was that very often, only engineers and security personnel were invited to define the quality of a public space in terms of perceived security without considering neither the human and social tissue surrounding the station, nor consulting non-technical experts such as human scientists, designers or even planning experts.

Too often had we seen the results of a station development treated as a simple case of real estate development, with architects designing the built environment following solely a client's brief and their own authority, disregarding the impact of social control and cohesion.

Prior desk research had revealed that in neighbourhoods with "good" social cohesion, interaction and diversity levels, the perceived level of security was usually quite elevated.

To be sure, perceived security does not always match objective security. Perceived security resides in our head. It results from our emotional capacity to trust, manage and possibly intervene in a situation. Consequently, perception is emotional and for that reason requires a non-technical and human scientific approach.

The idea was backed by UITP and a palette of operators and authorities in urban public transport in Europe.

The team

Our multidisciplinary team of experts in anthropology, sociology, psychology, design, architecture, urban planning and engineering developed a research that would change the perception of public space and public transport space.

Going beyond the traditional CPTED theory (Crime Prevention Through Environmental Design, °1970-ies), our methodology focuses on the necessary intertwining of design and human engineering of public space as a comprehensive and soft approach to improve perceived security, creating a higher quality public space.

SPIN-UP (Security Perception in Inter-modal Stations for Urban Public transport) was about to see the world.

Sustainability and density of cities

Given every day more people go and live in cities, the demographic density of cities is growing fast. In terms of sustainability this is preferable over the creation of an urban sprawl.

In terms of urban planning however and in the absence of a regulatory framework covering the proportion of open space vs built environment, this poses a serious challenge to the availability of public or even semi-public space for meeting, greeting, leasure and entertainment.

Therefore we believe urban planning and mobility need to go hand in hand.

Why support and promote public transportation?

First of all, public transportation is a key tool to promote physical and social mobility and essential in the creation and maintenance of attractive cities. Therefore besides moving people from A to B, public transport is also the blood in the veins of cities. It plays an essential role to:

1. *Promote and develop* a sustainable environment for current and future generations
2. *Maintain and increase* the quality of life in cities
3. *Promote and develop* physical and social mobility of citizens
4. *Nourish* social equity and inclusion by providing access to transport to the majority of citizens
5. *Foster* the economic performance of cities and communities

Fostering the attractiveness and the sustainable development of cities implies for PT-operators the need to attract more clients from private mobility. They can achieve this improving their performance taking into account a range of 'physical' and 'emotional' aspects:

- a widespread, accessible, safe and intermodal network with 'interesting' hubs
- affordable tickets
- a strong and open identity rooted in the cultural diversity of the city and in return,
- the sense of co-ownership by customers leading to a better dialogue, social control and improved maintenance

"Success is a win-win."

To be sure, success is a win-win. It requires mutual trust, sense for detailing, know-how and continued effort.

As referred to, we have seen in our research many examples of well-conceived stations from an infrastructural and engineering point of view. However, the infrastructure is often tarnished and even destroyed because the user doesn't care or doesn't feel recognised. His indifference relates to his relationship as a user to 'the authority' as a vast concept, because of the 'them against us' feeling, because of the 'they do not know us'.

It is therefore quintessential to know and recognize the user in his needs and aspirations. Networks that adopt a respectful and understanding attitude towards their customers are more attractive than the networks who provide a stern infrastructure design and speak a language of authority than the networks that provide a closer-to-home setting and speak friendly.

We believe it is important to invest in prevention, communication and awareness in order to stimulate a positive attitude of passengers to the network.

SL Stockholm - Sweden

The latter doesn't exclude that when, for security reasons, the so-called preventive attitude is not applicable, a more repressive tone of voice or attitude should be adopted.

Our research has consequently confirmed that in order to improve the perceived level of security of PT (Public Transport) networks in a sustainable way, three main goals in terms of design should be pursued:

1. To generate a business environment attractive to clients, the latter must associate their journey with an agreeable environment; if not, they will change their purchasing patterns to alternative transport modes. An agreeable environment implies:

   a. Effectiveness and punctuality of the transportation,
   b. Safety, security and serenity of the experience,
   c. Perception by clients as an experience that responds to a positive image and recognizable life style

2. To offer an operational performance that allows the PT Operator to keep the production facilities and production tools visible to clients in a clean and pristine condition using efficient maintenance resources. This means keeping the network permanently clean, controlled and fully functional in a sustainable way.

3. To interact with customers engaging them in the surveillance of the network and in the creation of a welcoming environment - to involve passengers / clients as a positive and active part of the security equation. As referred to earlier, success is a win-win and can only be achieved by developing a sense of ownership with clients and staff and providing a network that is cherished by both.

Hence in our research findings we draw a line between the context and the actor.

The context:
A «Heterotopia»

The heterotopia (Michel Foucault, '*Of Other Spaces*'/'*Des Espaces Autres*', 1967) concept allows for the fact that the nature and quality of each public space/urban public transport station is strongly influenced, if not defined by, the nature and quality of the surrounding neighbourhoods. In order to improve perceived security, it is important that stations serve beyond their functional status as a nodal point and adopt the status of a human interactivity platform.


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Secondly, it is important to point out that even if modern public transportation networks use proprietary/semi public premises, they should be considered "Heterotopias" since users of all ranks, status, gender, social, ethnic, cultural, religious and intellectual backgrounds are welcome under the sole condition that they respect 'the rules of the game.'

These 'rules of the game' imply, for example, that they pay for the journey and behave according to an explicit and implicit body of rules. No one group should dominate the space nor impose its own behaviour or rules upon other clients/staff present at any given time.

The organisation of space in the Heterotopia:
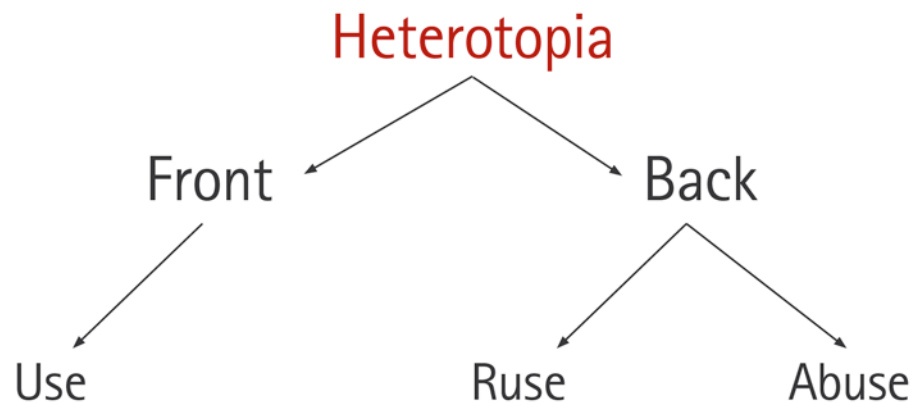
Front Space - Back Space

Likewise, this implies that infringements of these unwritten codes of conduct will not be tolerated. Therefore, prevention and dissuasive information prior to imposing repressive measures is crucial. The heterotopia status of the station also implies that users are to be considered as citizens and clients first, and consumers second, since not all clients are consumers.

The "Heterotopia" status diminishes the risk of tension and other accumulations of negative emotions. It also brings extra vitality to public transportation in a sustainable way.

As we equate a PT-station to a heterotopic public space, we come to the notion of front and back space behaviour.

Front space behaviour is defined as the behaviour that is expected in a public space and meets an explicit and implicit body of rules. This would include, for example, the way passengers use a seat, sitti¬ng on it as the designer intended.

Elaborating on this example, back space behaviour would mean the user uses the seat in a unexpected or even unwanted way. Back space behaviour can be defined as behaviour one would normally only reveal at home or in another private space, not in public.

USE - RUSE - ABUSE

The heterotopia follows a code – formal or informal - of the accepted ways of using the network is in use. But society evolves, as do codes-of-conduct and conventions.

What was impolite 'ruse' in the past might have become an acceptable or relevant way to behave today and a brand new behaviour might update another from the ruling code-of-conduct.
No matter the network, acceptable behaviour must be first circumscribed and made public before the PT operator can accept it and possibly allocate resources to enforce it.

We recommend the design & human engineering approach to consider and:

a) foster the "correct" use of the PT network and services, be transparent on what is "correct"
b) avoid that unconventional forms of using the PT by some passengers (ruse) becomes annoying and negative nuisances to others,
c) dissuade abuse, make it easy to detect and to repair,
d) enforce the code-of-conduct ensuring a balanced mix of "educational" and a "repressive attitude" to avoid extra sources of stress.
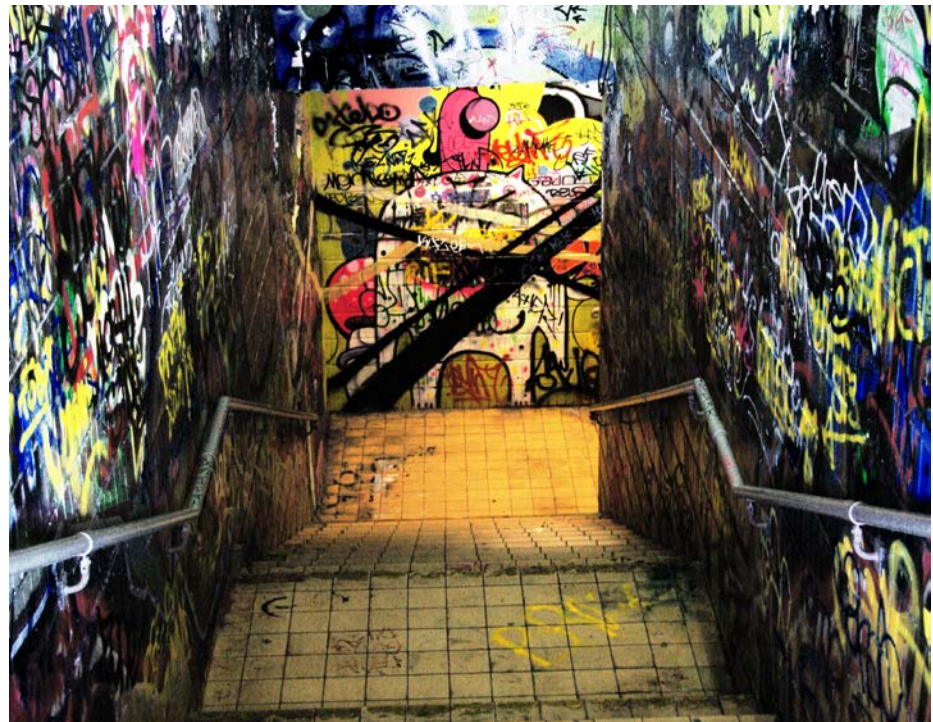
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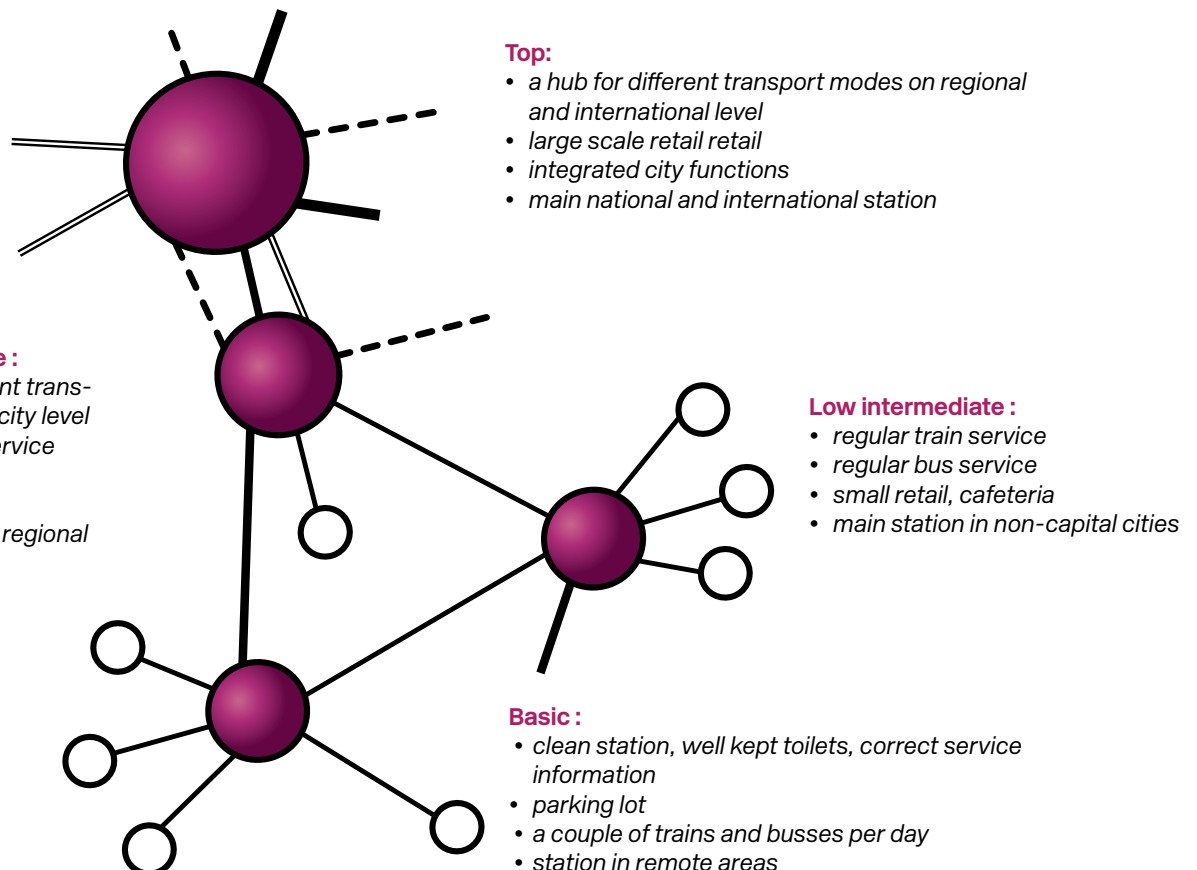# The hierarchy of the city and the hierarchy of a station

Antwerp is not Mumbai, Caracas is not Moscow, Paris is not Shanghai, New York is not London.

Likewise we can refer to stations. As with cities, the attractiveness, quality and kind of a station is defined by its complexity, by the number and different modal connections, the distance of its connections, the complexity of its organisation and facilities and the quality of its services.

An interchange with High Speed and airport connection will attract a different audience than an interchange with only urban and regional connections.

High Speed and airline passengers are likely to have a different time frame in front of them than an undergound traveler whose next train is in 90seconds. Facilities and services need to be adapted to these practical travelers' expectations.

Along the same lines, we have observed that the level of development of a station also depends the retail potential of the station, hence the possibility to generate non-rail income

Top:
- *a hub for different transport modes on regional and international level*
- *large scale retail retail*
- *integrated city functions*
- *main national and international station*

High intermediate :
- *a hub for different transport modes on city level*
- *regional train service*
- *quality retail*
- *quality services*
- *urban station in regional capitals*

Low intermediate :
- *regular train service*
- *regular bus service*
- *small retail, cafeteria*
- *main station in non-capital cities*

Basic :
- *clean station, well kept toilets, correct service information*
- *parking lot*
- *a couple of trains and busses per day*
- *station in remote areas*

The actor:
Mobility and Community services provider

Independent of the heterotopia or hierarchical status of the semi-public space as described, PT-operators should position themselves as mobility and community services providers, i.e as key actors in development of attractive cities. Indeed, PT networks are excellent tools that link neighbourhoods, help communicate and promote social cohesion. We expect them to drive us from here to there, inform us of incoming trains and buses and possibly also entertain us while we do some shopping in their premises surrounded by attractive music, art, lights, etc.

This position as mobility and community service provider can only be achieved as long as the PT actors excell as to deserve this status of respect and authority. In practice, this implies that the PT network is visible in the city, with clearly signposted entrances/exits and signage to and from the platforms, reliable timetables and performance information, premises, facilities and services that are kept clean and maintained in perfect working condition, staff that adopt a customer friendly attitude, a good combination of commercial and other services on hand... in short, that intuitively, we feel confident about the network and its operator.

Along with the client confidence comes their identification with the network. Encouraging clients to identify with the network can be promoted through a series of sensorial measures such as the integration of public art by local artists, references to activities in the surrounding neighbourhood (museums, music halls, universities, squares, etc.) clear signage, information and other forms of communication.

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The practice

The above theoretical concept to design public space and public transport space can be implemented in 3 levels of intervention:
- infrastructure
- equipment
- day-to-day operations

In conclusion

The research findings confirm that perceived security in urban public transport cannot be satisfactorily addressed from a technical perspective only. It requires insight and understanding of the context, culture, social and economic dynamics of the environment and station surroundings along with an understanding of the mechanisms and emotional reactions of people.

Today SPIN-UP is a methodology developed by YellowdesignFoundation in conjunction with Fontana identity & design. It honours the principles of human interaction in the heterotopia and stresses the operator's position as mobility and community services provider. It is currently applied by PT transport operators and specific consumer oriented businesses in Europe. SPIN-UP is praised for its impact leading to positive social and customer relations as well as maintaining, if not reducing, the cost of maintenance and equipment.

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January 2015