Shared Space or Saved Space?

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ABSTRACT

In the last few years the term “Shared Space” has been used more and more often. First, the lecture will shortly describe what “Shared Space” means. It will point out the real differences between shared spaces and conventionally designed spaces and propose a thesis: even “Shared Space” needs some saving elements.
Second the lecture describes the difference between a square and a street and deduces that squares are more suitable for “Shared Space” than streets.
In shared spaces safe areas for pedestrians and other weak users are also necessary. That’s why the third chapter describes the method called “Urban Street Dimensioning”.
The lecture describes examples in which elements of “Shared Space” are combined with conventional elements of street design. It also shows which conditions and circumstances of urban-design have to influence the choice between the different methods of street design and their elements.
Furthermore, three important issues will be dealt with: How can we make shared spaces safe for handicapped people and help them to orient themselves without using traditional elements of separation, like curbs? And: Which special elements can we use and how can we integrate them in the entire design?

1. "SHARED SPACE"

Urban spaces without curbs and traffic signs, without fixed rules, where all users move freely and carefully: who wouldn't wish for such beautiful quarters? In Europe we have this wonderful world in a few towns, especially in the Netherlands, where this idea was manifested a few years ago. In Germany, similar spaces were designed after 1970. These areas were called "Mischflächen", which means mixed used streets without curbs or other elements to separate the different users. But we were not as courageous as our Dutch colleagues regarding the traffic volume in such situations. We said, that this is only an option for streets with a traffic volume less than 400 cars per hour. Now, Dutch planners say that Shared-Space is perfectly OK for streets up to 1200 cars per hour and more. In the German Research Board we don't entirely agree with this view but we have to admit that safety in those redeveloped streets is not worse than before the redesign.

What are the special elements of "Shared-Space"? First, we can see the absence of the usual leading elements such as curbs, signs and parked cars. But then we recognize other separating elements everywhere as well as devices which control the right behaviour of the various users: trees, benches, bollards, low walls and occasionally little signs. So we can suppose that the user's behaviour is guided too and not totally free. There is a variety of reasons for this: to protect the pedestrians the car drivers have to keep a certain distance from the facades and the cyclists and especially the motor-cyclists have to move where the cars move. To guarantee that the car traffic is not hampered by other users, pedestrians are allowed to use the middle of the street only for crossing over.

FIGURE 1 Little Signs help also in Shared Spaces

The most important question is: who is supported by Shared Space? There isn't a difference between a Shared Space and a "Not Shared Space" for a pedestrian walking a street. There is perhaps even a disadvantage for him: before the redesign he moved in a safe space behind the curbs, now he hasn't this kind of security anymore. The difference is in the middle of the street: here pedestrians can now cross the roadway more safely and more relaxed because car drivers move more carefully. So we see: only for the users who have to cross the road is Shared Space an advantage. That's why in the German Research Board we say: Shared Space is a design method for interfaces between areas highly frequented by pedestrians and streets with medium traffic volume. Only in these special situations the option Shared Space is suitable.

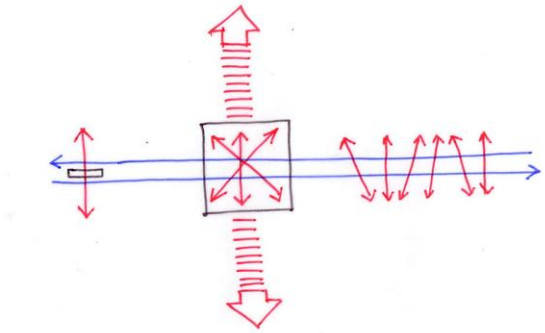

FIGURE 2 Different kinds of crossing areas

2. STREETS AND SQUARES

What's the difference between a square and a street? And what's the difference between what the users do in a square and where exactly they do it and what and where exactly they do something in a street?

Streets are spaces for a lot of uses, for example for staying, for children to play, for shop-owners to display their goods, for people to sit in a bistro and drink a coffee. But first of all they are spaces used to move from one location to another. In contrary to that squares are first of all spaces for staying, for representation, for political and cultural events, spaces where people promenade, show themselves and see other people who show themselves too. Very often they are the most important meeting points in a town, often symbols for the entire community. For these functions it is very important that all people can move and stay where they want. Traffic should be possible but only additional to the other uses of the space. A great mixture becomes in which pedestrians, cyclists, cars, people standing together in groups and playing children share the space. Here the situation has always been what we call "Shared Space"!

The use of a normal street is organized in a different way: even if there are a lot of different functions as described above, these functions are located in different zones. That's why users need the edges: that's where are the shop windows, the entrances to the houses, the trees with their shadow, the menus of the restaurants ... so why should the users walk in the middle of the street?

Even in a wide pedestrian precinct can we observe people at the edges moving more slowly and with a lot of stops, for example in front of shop windows or entrances. In contrast persons who move in the middle of the street walk faster. In a normal street there are the cars which can move there at their speed. To summarize: speed in a space is higher in the middle than at its edges (we can perceive the same phenomenon while watching the water flowing in a river).

In consequence the middle of the street is used by faster users, especially by cars. But not only by cars! Pedestrians also need this part of the street, namely for crossing from one side to the other. If shared space is supposed to improve the safety of pedestrians, why should it cover the whole width of a street? If we do that, we would lose the present advantage of pedestrians using the edges, which is, that they are safe there. The only part of the street where shared space leads to an advantage for the pedestrians is the middle of the street because they can cross it more safely.

3. URBAN-STREET-DIMENSIONING (USD)

The dimension of space reserved for pedestrians can be defined by the method "Urban-Street-Dimensioning (USD)" which was described at the TRB Annual Meeting in Washington D.C in 2005 (1). Since 2006 this method has been implemented in the German "Rules for Geometric Design of Urban Streets 06" (2). USD defines the width of the part of a street in which users go by car, motorbike or other fast vehicles (roadway) by dimensioning the parts of the street which are necessary for urban life: the sidewalks, spaces on both sides of the roadway for displaying goods, for putting tables and chairs, for front gardens and other spaces for staying.

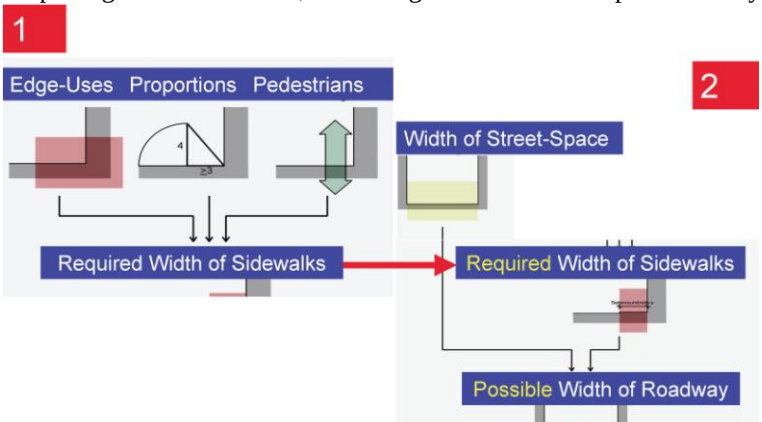

FIGURE 3 Urban Street Design Dimensioning.

The method is based upon three factors:

- For the well- being of the pedestrians and the cyclists the sidewalks have to be in a comfortable relationship to the areas for roadway (comprised all areas for private- transportation and public- transportation); people feel that a relation of 30 : 40 : 30 between sidewalks and roadway is comfortable (3).
- Between sidewalk and the outside- edge of the street- room an area is necessary, in that the claims of the residents, shop-owners, restaurant-owners and customers are satisfied (stay- areas, sit- areas, areas for sale, distance- areas, front gardens)
- In order for the pedestrians to feel good the proportions within the street- room have to be balanced. For example: the sidewalk along the cyclepath must not be too narrow.

Based on these three factors, on can determine the required sidewalk- width, and based on that the possible width of the roadway in relation to the whole street- width.

It is necessary to bring the into the "Urban designed street- dimensioning" determinated urban- designed **possible** breadth for the roadway into harmonize with the **required** sidewalk- breadth through an political procedure of weigh the different claims. Into this procedure historical und regional or local factors have to be include (4).

With USD we have a method to improve the situation on the sides of the street, through which we achieve very safe and untroubled and undisturbed rooms for pedestrians, cyclists, people who live and work in the houses on both sides of the road. If we were to realize Shared Space in such areas we would not improve the present situation but on the contrary we would make it worse!

4. MORE SPACE FOR PEDESTRIANS!

So if we want to improve the situation in our streets, we have to mix two kinds of street-design: in the middle of the street (where the roadway usually is located) we can improve the situation for the pedestrians by shared spaces but on the edges we have to conserve and widen the spaces which are reserved for pedestrians, children, displayed goods, bistro tables, half-private zones in front of residential houses (4).

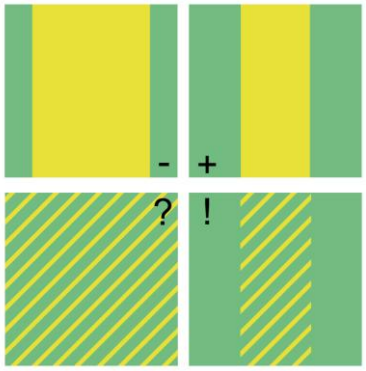

FIGURE 4 Shared Space for All? Safe Space for Pedestrians!

5. CREATION OF SHARED SPACES

What is the best way to create Shared Spaces? The usual opinion is: we have to change the car drivers' innate feeling that the middle of the street belongs to them. They have to understand that they are only guests in the street, so that they slow down with a result similar to that of traffic calming measures. But how can we get the car drivers to feel that way? We have to design a space that has not the shape of a typical street but looks more like a square. For that several details are important:

- the elements of separation must not be linear and continual, they have to be different from common curbs; qualified elements are trees, low walls, the lighting system, street-furniture.

FIGURE 5 Elements of Separation, Haren (NL).

- the edges of the shared space have to show a space which is different from a normal street. We can achieve this for example by edges which are not parallel but create a triangle

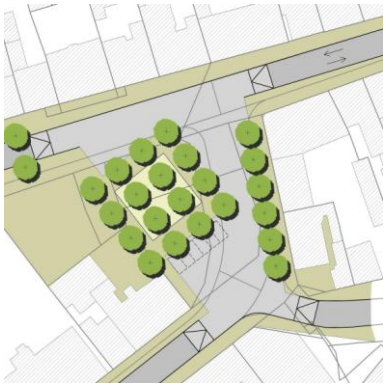

FIGURE 6 Space without Parallel Edges, Zinnaer Square in Luckenwalde (D).

- the design of the surfaces has to be differentiated from the normal geometric street design. In contrast to the normal street the surfaces have to be arranged independent of the curves which the cars go: cars have to be able to move without problems but the lines in the surfaces shouldn't show that.

FIGURE 7 Design independent of Cars, Haren (NL).

- No parked cars: that has a very important function for the safety of pedestrians, especially children who want to cross the street, but there is another important psychological function: our experiences tell us, a street has parking slots, a square hasn't. That's why we understand a space without parking-slots as a square and we will behave accordingly.

FIGURE 8 No Parked Cars: The Street looks like a Square, Haren (NL).

- The lack of signs signals the users that they are responsible (not anybody in the administration or the police). Nevertheless we have to show the users that they are approaching a special situation. We can achieve that by special elements in the streets leading to the shared space, perhaps by a special sign or a changed familiar one.

6. SHARED SPACE AND DISABLED PEOPLE

FIGURE 9 No integrated elements to guide blind people.

The lack of curbs or other linear guiding elements is a big problem for several disabled people. In contrast to people who cannot walk well (they approve of the lack of such elements), for blind people or people with impaired vision the lack of curbs makes the spatial orientation impossible. It goes without saying then, that we have to implement some elements which help them. But these elements must be an integral part of the entire design. We have to create a beautiful design which is supportive and comfortable for all users. So we have to design a space that has several elements which are helpful for the disabled and at the same time inviting for everybody else.

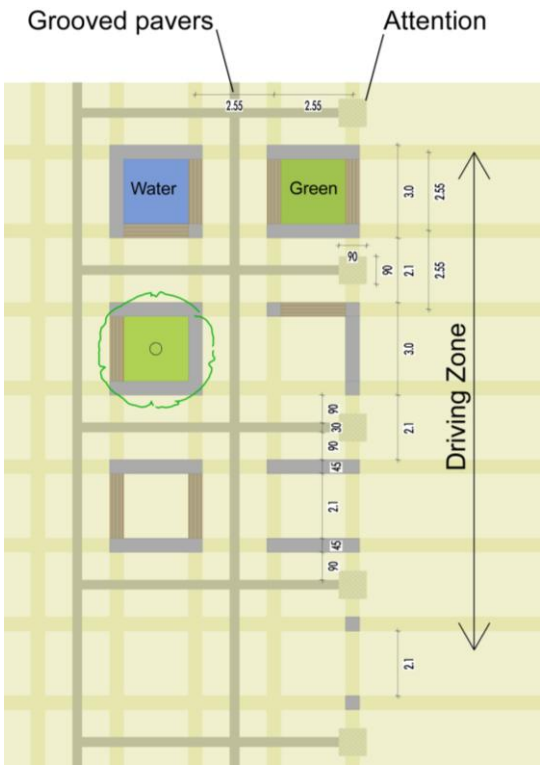

FIGURE 10 Integrated guiding elements.

7. TRAFFIC LIMITATIONS FOR SHARED SPACE

In Germany there is a lively discussion about the urban and traffic limitations for the implementation of Shared Space. The central question in this discussion is: What is the maximum car traffic volume which such areas could take? In my opinion this isn't the decisive question. More important than the car-traffic volume is the number of pedestrians, cyclists and other users in such spaces. Only if a lot of people are visible in the space will car drivers recognize that they are in an urban space where they are only guests. And this has to be the situation for the major part of the day. In one of our projects, the Shared Space is located in front of a school. In this situation a lot of people use it from 7 am to 2 pm, after that a few people use it and in the night nobody. That's why the various users will feel differently in this Shared Space, depending on when they use it. We have to ensure that car drivers use the space carefully at all time. We can achieve this aim by the special character of the space that is defined by furniture, trees and elements of public design. In the evening and at night, it's obviously the lighting system which will influence the car drivers' behaviour.

FIGURE 11 Example Bocholt: Present space.

FIGURE 12 Example Bocholt: Shared Space with people: no problem.

FIGURE 13 Example Bocholt: Shared Space without people: car drivers won't be careful.

8. COMPETITION FOR SHARED-SPACE-PROJECTS IN GERMANY

Everywhere in Germany politicians demand to turn streets and cross-roads into Shared-Space-Areas (the advocats of shared space have been very successful). So the Land Brandenburg (the region around Berlin) offered a competition for Shared Space Projects two years ago. First communities could submit their proposals where they would like to implement a Shared Space project. A committee appointed by the ministry examined the proposals. In this examination urban and traffic factors were deciding: What's the traffic volume? How many trucks? How many pedestrians and cyclists? What are the urban aims for the spaces? Are there a demand for areas for staying? and so on. They determined three model projects, for which the Land subsidized facility studies. To end my lecture I would like to present now one of these facility studies.

9. THE SHARED SPACE PROJECT LUCKENWALDE

FIGURE 14 The Shared Space area set by the planning board.

FIGURE 15 Only One Square is suitable for Shared Space.

Luckenwalde is a town with about 50.000 inhabitants, it is located in the south of Berlin. An important major street passes by the city centre. The traffic volume in this street is at the moment about 15.000 cars per day, with a lot of trucks. In several years from now, a deciding part of this traffic will be on a ring road. Our proposals are for the time after the construction of the ring road will be finished. Then the traffic volume will be only about 7.000 cars per day in the city centre.

A lot of pedestrians and cyclists, especially children on the way to or from school, use the area which was assigned by the administration as a possible Shared Space area. A speciality in Luckenwalde is that a regional route for inline-skaters crosses the area. This regional "Scater-route" leads around Berlin over a distance about 250 km and is an important economical factor for this region.

In the facility study we noticed that the area assigned by the administration is only partly suitable for Shared Space. In several parts traffic factors prevent the implementation, in other parts urban factors. In the end there is only one part suitable for Shared Space. This space is a wide triangle, split into different areas, none of which is inviting or comfortable for users. Here Shared Space is a valid method to improve this situation largely. But in the end there won't be a big mixture of all users! There will be big areas which will be reserved only for pedestrians and staying people, especially a square with 16 trees on the western side of the space . The difference to a normal street is created by the shape of the areas which will be used by car-drivers: these areas haven't parallel edges, there will be a situation where car drivers won't recognize a roadway. Therefore they will have to behave here as if they were on a square: careful, human, like pedestrians in cars.

This changed behaviour will have to function not only in the daytime, when a lot of people are in the space, but also during times when it is empty. So we will implement special elements which guarantee this change of behaviour at all times: trees and benches which are arranged on the level of the roadway, materials which look more like materials suitable for a staying area than a roadway, a special lighting system, comfortable furniture.

FIGURE 16 The present space.

FIGURE 17 Space "shared" by trees and furniture.

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