

WOONERF REVISITED

Delft as an example

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Delft in the past

1.

Daily streetlife in Delft in former days is probably best depicted by Johannes Vermeer in this painting, simply called 'Straatje'.

It shows us a secure and attractive place for children to play in front of the house.

Johannes Vermeer, Straatje, 17th century

Rijksmuseum, Amsterdam



2.

Looking at the picture in detail we see an old lady sitting in the doorway, repairing clothes while keeping an eye on the children. They may be drawing with chalk or play with something simple, like ragdolls or knuckle-bones.

The girl is sitting on the pavement, whilst the young boy keeps safely to the 'stoep' in front of the house, a semi-private zone laid with slabs or tiles.

Johannes Vermeer, Straatje, detail



3.

Canals were essential in the development of Delft and its townscape. The name Delft has literally the same meaning as 'been delved' or 'dug out' in English.

Jan Steen made this 17th century painting to show his great skills in art. We see a scene of civil pride staged on the Oude Delft, the first and still the most prestigious canal.

The wealthy citizen is sitting on the steps, made of expensive stone. His 'stoep' is paved with slabs. The rest of the pavement is differentiated: small bricks for walking along the stoep on one side and also on the quayside, with cobblestones in the middle to withstand horseshoes and sledges.

Jan Steen, Burgemeester van Delft en zijn dochter,

Rijksmuseum, Amsterdam



"A city friendly to children is a city friendly to all"

4.

The canal was the place where it all happened, because, until recently, shipping was by far the best way of transportation. All sorts of current needs, like building materials, grains, vegetables, animals, milk and peat came in by boat. Some goods were sold directly on the quayside, others were traded in nearby shops. But also the riches from overseas, like spices and silk, were brought in that way. They had to be hoisted onto the attics that were used for storage. The other way around local produce, like beer, cheese, cloth and Delftware, was taken out to other towns and countries.

*Gerrit Berckheyde, Spaarne Haarlem, 17th cent.
detail, Rijksmuseum, Amsterdam*



5.

The narrow streets alongside the canals performed many functions. Goods were unloaded and traded or loaded again after temporary storage. The 'stoep' on the houseside was used for display and trade, but also for sitting outside and meeting other people. The middle of the street was primarily for pedestrians, but also used by horses with a cart or a sledge. Busy streetlife brought about a lot of experience for the young. Trees made for an agreeable environment.

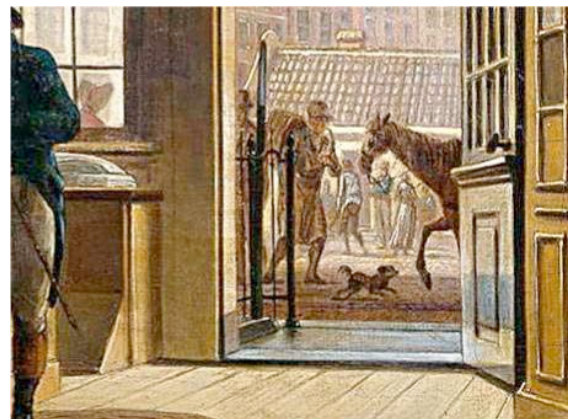
*Cornelis Springer, Zuiderhavendijk Enkhuizen, 1886,
Rijksmuseum, Amsterdam*



6.

Public space within the walls of the town was scarce. So the street had to perform these functions, all in one.

*J. Jelgershuis, Dam Amsterdam, 1820, detail,
Rijksmuseum, Amsterdam*



The 60's in Delft

7.

In the first half of the 20th century the 'streetscape' had been drastically changed by the motorization of society. The quayside, where ships used to load and unload, was taken over by long rows of standing steel. Pedestrians, pushed out of the way by cars, had been given a refuge on a narrow sidewalk. Many 'stoepen' had been demolished in the process.

Brabantse Turfmarkt, Delft



8.

The spirit of the sixties, the era of 'flower-power', entered the street. A group of residents of an alley in the city centre converted a derelict plot into a play area, with a little help of the municipality and a paint factory. Walls were painted. Huts were built for hiding and climbing. Trees and shrubs were planted.

Hopstraat, Delft



9.

Somewhere else, in a densely-built district with small houses, a group of residents squatted one of the streets. They claimed it for playing, planting and sitting.

The municipality gave in quickly, deciding on a renewal of the public space in the district, anticipating a renovation of the houses.

Tuinstraat, Delft



The 70's in Delft

10.

This started a process of redefining and redesigning streets, turning them into a 'WOONERF'. A term that literally can be translated as 'residential yard'. This new phenomenon was shortly described as: 'a street for children, where cars are allowed, but only within limitations'.

The main issues were:

- curbing speed;
- giving pedestrians the full width;
- planting trees, especially in streets that could not accommodate any trees before;
- public lighting in accordance to the streetscape;
- giving inhabitants a small semi-private zone on the housefront with greenery and benches like the old 'stoep'.

The historic 'streetscape' of the canals with stoepen and trees, where pedestrians use the full width of the street, was a well-known reference and turned into an inspiration.

Westerstraat, Delft



11.

Necessary repairs on two bridges in the middle of the city center were a good opportunity to get rid of most of the motorized through-traffic. In some parts of the historic centre (about 1.000 m wide and 1.500 m long) a system of loops was introduced, meaning that cars entering from one side have to leave on the same side of the city center. An exception is made for the local buses. Nowadays it is hard to imagine how many cars used to force themselves through narrow streets and tight corners.

Oude Langendijk, Delft



"A city friendly to children is a city friendly to all"

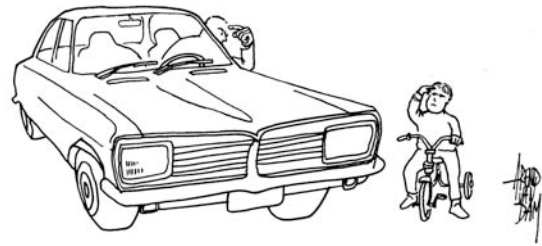
The 70's in the Netherlands

12.

The concept of 'woonerf' rather quickly found acceptance by the national government. Special rules for traffic on a 'woonerf' were issued. An official commission on 'Traffic-liveability' propagated turning towns and villages into vast, comprehensive habitat-areas by way of traffic-taming, cut only by a very limited number of traffic-arteries.

The idea of 'woonerf' was adopted by many local authorities. It even became quite fashionable, for a while, with town-planners.

Arend van Dam, Eindrapport Verkeersleefbaarheid in Steden en Dorpen, Min. of Transport & Min. of Housing, 1980



The 80's in Delft

13.

I will return to the woonerf later. But first I'd like to resume the history of traffic-policy in Delft.

In the 80's the town-council shifted the priorities to the facilitation of cycling.

Delft (80.000 inh.) was the first town to retrofit a complete, comprehensive cycle network. It consists mainly of quiet streets, but still a multitude of relatively small changes had to be implemented, for instance:

- two-way cycling on one-way streets;
- cyclinglanes on main streets;
- improved layout of crossings;
- adjustment of trafficlights;
- room for cyclists to jump the queue at trafficlights.

Stationsplein, Delft



14.

Also several shortcuts were added, all for cyclists and pedestrians only:

- extra tunnels under urban highways;
- new bridges over the main shipping canal.

Abtswoudsebrug, Delft



15.

A number of new paths was opened.

This alley, that had been closed for ages, is now a new connection between the railway station and the city centre.

It is so narrow that cyclists and pedestrians have to share space, like on the woonerf.

Barbarasteeg, Delft



"A city friendly to children is a city friendly to all"

The 90's in Delft

16.

In the nineties a system of parking-regulation was introduced gradually, starting in the city center, spreading outwards. Inhabitants and some of the workers can use a permit while, on certain hours, others have to pay each time. Such a system, under condition of effective maintenance, is indispensable in densely-built districts to get the flood of cars under control.

Westerkwartier, Delft



The 90's in the Netherlands

17.

On a national level the government, regional authorities and local councils agreed on the 'Sustainable Safety' programme. Part of this is turning all urban streets, with the exception of a limited number of traffic-arteries, into vast, comprehensive 30 km/h zones. These zones can also comprise woonerf-streets.

van Miereveltlaan, Delft



Lately in Delft

18.

Lately the innerpart of the historic city centre was turned into a pedestrian area, where cyclists and (some) cars are allowed. The entrance of cars is controlled by hydraulic bollards.

One could say that in effect the area is now a kind of 'woonerf', or better 'stadserf' (urban yard).

Delft, Oude Delft



19.

Did Delft succeed in defining and designing Childfriendly Streets?

The aims can be summarized as:

- Safety and Security;
- Movement and Independent Mobility;
- Experience and Enjoyment.

Revisiting the 'woonerven' it shows they were made by trial and error. The tools had to be developed, learning by doing.

Looking backwards makes it easier to assess to what extent the objectives were attained.

No street is perfect. But we can find all the necessary ingredients, one street or another.

Westerstraat, Delft



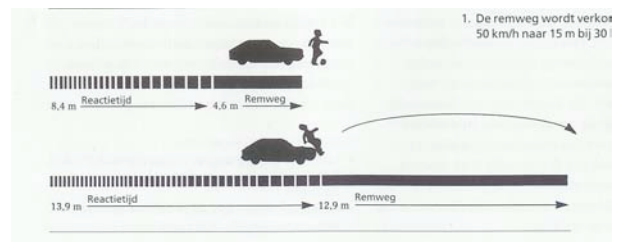
Safety and Security

20.

Low speed minimizes the risk of serious accidents. It leaves road-users more time to avoid a collision and shortens the distance covered, first during the time that it takes to react and then during the process of slowing down.

If a collision cannot be avoided after all, the blow will be less severe and the injuries will be less serious. But nearly always in incidents at low speed everyone will escape with a fright.

Distance covered at 50km/h and at 30km/h



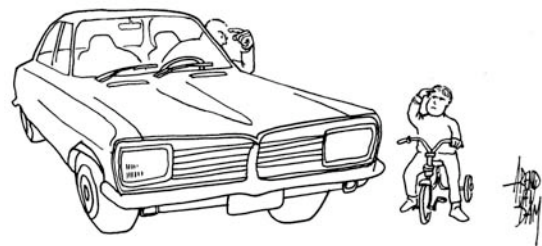
21.

Complete elimination of every risk in traffic is impossible, whatever we decide. Road-users will keep on making mistakes, continually and everywhere. And cars will still be dangerous, even at low speed.

So we must keep on learning children to cope with cars. Just as we learn them to live with all sorts of danger in and around the house, like ladders, hammers and dogs.

Although we must accept danger to some extent, the bottomline is that we cannot accept that making a mistake results in severe injury for oneself or anyone else. That is what makes low speed, literally, of vital importance.

Arend van Dam in Eindrapport Verkeersleefbaarheid in Steden en Dorpen, 1980



23.

We are all familiar with the engineers' tools to curtail speed:

- sudden changes in level, like humps, raised crossings and convex bridges;
- sudden changes in direction, like chicanes;
- narrow passages.

These instruments can be effective because they bring along some discomfort.

But they themselves are insufficient to convey the message that this is a street for living, where cars should behave like guests.

Esdoornlaan, Delft



24.

Which means we have to make the driver aware that he might encounter unexpected elements at any point at any time.

Change his focus from far sight to wide angle.

Don't let him search for the end of his torment.

Make him look for anything that might occur on a short distance and on the full width of the street.

Olofslaan, Delft



25.

Draw special attention to places where people might pop up, like points where pedestrians are likely to cross, cycle-routes, backways and entrances to major buildings.

Tanthof, Delft



26.

Don't hide playgrounds, expose them.

Show everybody: this is a street for living.

Maria van Oosterwijkstraat, Delft



27.

Point out obstacles, also at twilight.

Use lampposts for visibility and protection, also in daytime

Hof van Zilverlicht, Delft

28.

Mark the points of transition from the street into another type of public space where a different behaviour is required.

Kortrijk, Nieuw Sloten, Amsterdam

29.

Security for children depends largely on the presence of adults, not just pedestrians and other non-motorized roadusers, but also people watching the street out of livingrooms and kitchens.

Mussenstraat, Amsterdam Noord

30.

The interaction with adults (for imitation, confirmation, or out of just curiosity) makes the street extra attractive for children to play in and is a good opportunity for adults to meet one another casually.

Visdiefhof, Den Haag-Ypenburg

31.

Attractive seating facilities are usefull for adults wishing to keep an eye on young kids. They are also helpfull to tell that this is a street for living.

Van Bleyswijkstraat, Delft



32.

Adjust public lighting to the kind of streetscape you want.

On urban highways it may be appropriate to put up high masts spreading a lot of light evenly over the surface, in order to facilitate the flow of traffic. But on childfriendly streets the light should be pointed at pedestrians, housefronts, niches and obstacles, not at cars.

Use public lighting to achieve a homely atmosphere, even at night.

The lighting of the townscape in an historic city centre certainly adds to the attraction for citizens and tourists as well.

Oude Kerk, Amsterdam



MOVEMENT and Independent MOBILITY

33.

Independent mobility enables children to participate in all sorts of activities without burdening the parents to fetch them each time. Finding their way they get better acquainted with the outside world and develop their social skills. Independent mobility starts with freedom of movement in the street.

Prerequisites are low speed (allowing time to make eye-contact and assess mutual behaviour) and limited amounts of car and cycle traffic.

Mussenstraat, Amsterdam Noord



34.

In most urban streets there is little freedom of movement because the way has been blocked by parking cars. Long rows of standing steel make up a 'traffic-gutter', unsuitable for any use, except for flushing the occasional traffic. It is a shame to let all this surface go wasted.

What makes it even worse is that drivers entering the street will accelerate, having nothing to focus on but the end of the street.

Storklaan, Delft



35.

Revisiting the woonerven made in the 70's and 80's, one has to admit that in many streets parking was not properly solved. Some streets are little more than car-depositories and rather chaotic ones at that.

A street is not childfriendly as long as the streetscape is, still, very much dominated by parked cars.

Frederik Hendrikstraat, Delft



36

Bringing parking under control in a neat arrangement is probably the most difficult task of all.

It means shifting parking space to locations where standing cars present little danger and do not impede mobility, nor the enjoyment of streetlife.

Stravinskylaan, Delft



37.

It may also ask for a system of permits and/or payment to restrict parking numbers.
A strict upholding of such measures, wherever and whenever necessary, must be a matter of course.
Otherwise you will have to barricade the street with rows of bollards, or you will end up with cars in every nook and cranny.

Zuiderstraat, Delft



38.

Parking on private, or semi-private places in front of the house can be a good solution, leaving the full width of the street for pedestrians and children and inviting inhabitants to add their own variety of planting, benches etc.

Gebbenlaan, Delft



39.

Parking cycles should be given as much attention as parking cars.
Provide stands, wherever necessary, to support and chain bicycles.

Patriciërslaan, Amersfoort



40.

Bicycle parking does not take up much space.
One car occupies the place of 12 bicycles.
Much of the advantage of cycling will be lost when bicycles cannot be securely parked within short distance.

Trompstraat, Delft



41.

Making the middle of the street available for pedestrians stimulates mobility. That is what Prof. Gemzøe of the Center for Public Space Research in Copenhagen found. His investigations into the attractiveness of market-towns on the Danish island of Fyn show that the layout of the highstreet has a considerable influence on the number of people coming to town for shopping, or just walking about and meeting other people. Streets with a limited number of parking spaces, partly on one side, partly on the other, draw many more people than streets with two continuous rows of parked cars, blocking off the middle of the street.

Alleestrasse, Romanshorn, Switzerland



42.

Walking in the middle of a childfriendly street is suitable for most pedestrians, although it may take a little while to get used to this freedom of movement and to step only aside when a car is passing.

However we must take in account that some pedestrians cannot step aside so easily (for instance people with a pram, a rollator or a wheelchair) and that others wish to stay on the safe side (like people with walking disabilities and parents with a toddler).

This asks for some extra width where one can walk without having to step aside, either on the outside of the street, or next to the trafficable path.

Zuiderstraat, Delft



43.

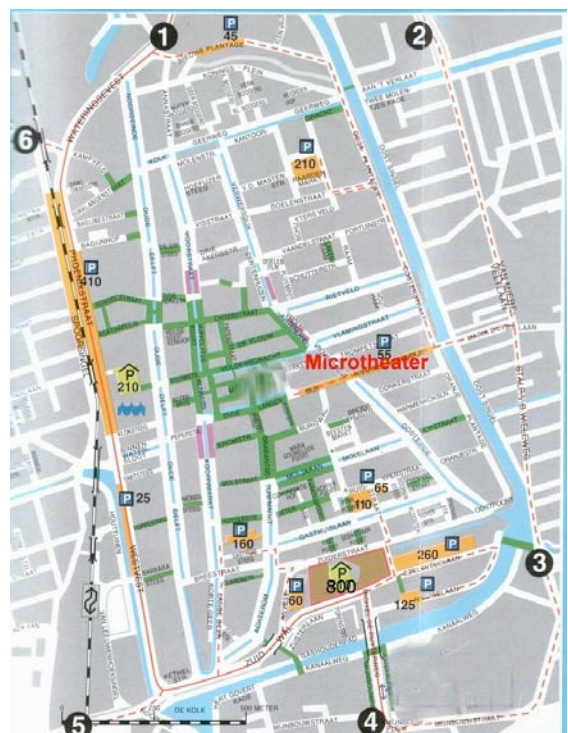
Independant mobility must not be confined to freedom of movement in a single street.

So the street should be part of a large, wide childfriendly habitat.

Delft serves as an example, showing that a comprehensive rearrangement of a large district, like the complete city-centre, is feasible. This area, which is 1500 m long and 1000 m wide, is not cut by any major road.

However buses and cyclists can cross the town in all directions.

City-centre, Delft



44.

Moreover childfriendly districts should be interconnected by safe, friendly routes for cyclists and pedestrians, for children and elderly alike. Again, Delft serves as an example by having completed a tightly knit, comprehensive network of routes for cyclists and pedestrians all over the town.

Oostpoort, Delft



EXPERIENCE and ENJOYMENT

45.

In order to foster experience and enjoyment, a childfriendly street can best be conceived as a sequence of outdoor living-rooms, each with its own character.

This in contrast to a traffic-artery which, inevitably, has the character of a continuous stream.

Rieteland, Rijswijk



46.

A standardized lay-out of streets is adverse to childfriendliness.

Variety not only enhances experience and enjoyment. It also helps to hold the drivers' attention, making him remember that something unexpected might suddenly appear anytime, anywhere.

Muurhuizen, Amersfoort



47.

Take advantage of every special element and vista you find or may create yourself, like public buildings, monuments, planting, playgrounds and views on art, sculpture, townscape or landscape. Use the lay-out to draw extra attention to these elements, enhancing the variety and the possibilities of experience and enjoyment.

Oude Delft, Delft



48.

Here the trafficable path in front of the school has been shifted. Not only does it slow down car-traffic and make way for parents and bicycles, waiting to fetch the children after school. By laying extra emphasis on the monumental character of the building it also adds something extra to the 'streetscape'.

Koningsplein, Delft



"A city friendly to children is a city friendly to all"

49.

Try to use materials in agreement to local traditions and style.
 Avoid fancy, foreign materials that will not blend in and show deterioration very quickly.
 Don't use empty patterns for decorative purposes only. The precious pattern will soon be blurred by minor changes and repairs. What was meant to give the impression of something special will rapidly get out of fashion and look outdated.

Achterom, Delft



50.

Differences in materials and its appliance can help the street user to understand and identify the various functions.

At this point a major shopping street crosses a narrow street alongside one of the canals. The material in the middle indicates 'all kinds of traffic' and is separated from 'walking only' by a gutter for drainage. The meander of the gutter focusses extra attention to the pedestrians crossing from one part of the shopping centre to the other. According to tradition the quayside, formerly used for unloading and storage, was laid with a different kind of bricks. Here it indicates space for 'bike parking'.

Gasthuislaan, Delft



51.

By the way, a simple gutter can be a very attractive element, defining the streetscape.....

Hagenstraat, Rijswijk



52.

..... and inviting children to come and play even at rainy days.

Konstanz, Germany



53.

Street 'furniture' and street 'dressing' comprises a lot of elements with specific functions, like:

- the guidance of different sorts of traffic;
- seating;
- lighting;
- delimitation of parking spaces;
- supports for standing and binding bikes;
- protectance of planting;
- fencing playgrounds.

Harmonizing several functions in one element will enhance the attractiveness of the street.

Here the lid of a major sewer makes an attractive focuspoint. And the circle of benches acts as a guidance for car traffic, while it keeps out parking at the same time.

St. Gallen, Switzerland



54.

Traffic-engineers use a lot of big signs and lines. They can be useful to warn you when driving at high speed. But in a residential street they emphasize the 'this is meant for traffic' character and clutter the streetscape. You wouldn't like to have these things in your livingroom. So try and minimize them in number and impact.

Provins, France



55.

Private initiative can play a decisive role in creating an outdoor livingroom. So encourage private contributions to enhance the streetscape and facilitate social activities. Let the residents add planting, a bench, a sandpit or even a terrace.

G. van Loonstr, Delft



56.

Give local groups and organisations a say in street management. Let them temporarily restrain traffic and/or parking, for instance at times when children come and go, or when people want to sit and play outside.

Rotterdamseweg, Delft



57.

Preparing this conference made me realize that 'there is no need to look back anymore. There are enough modern examples to show that childfriendly streets are feasible even in densely built urban districts.

Streets that offer Safety and Security, freedom of Movement and individual Mobility, Experience and Enjoyment.

Where cars do not dominate the streetscape.

Rieteland, Rijswijk

