# Streets as socio-technological urban publicwz

1850-2000

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# Streets as Central Urban Spaces and Technological Ensembles

# Topics

- Use of the street and its public character
- The technical design of the street and its organisation
- The diffusion of these designs from city to city





### A development in stages

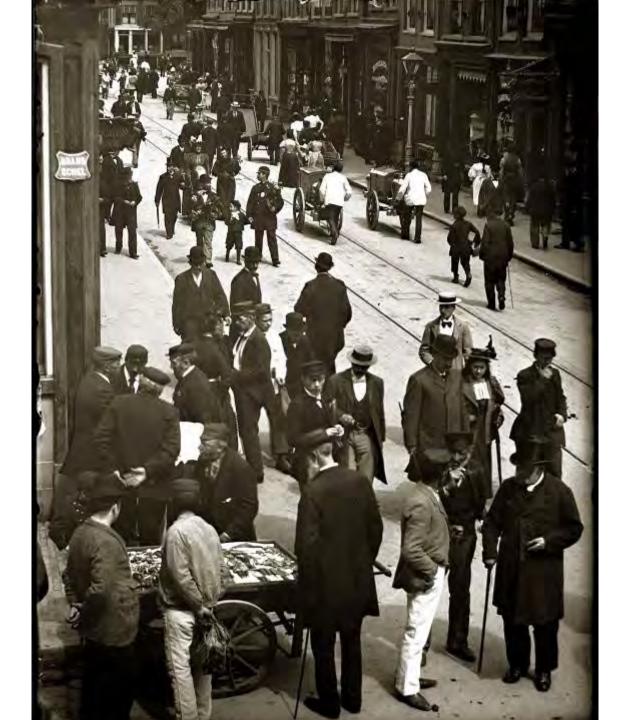
1850-1900: the sanitary street
1870-1910: the mechanised street
1900-1930: the electrical street
1930 – present: the motorised street

### What is a street?

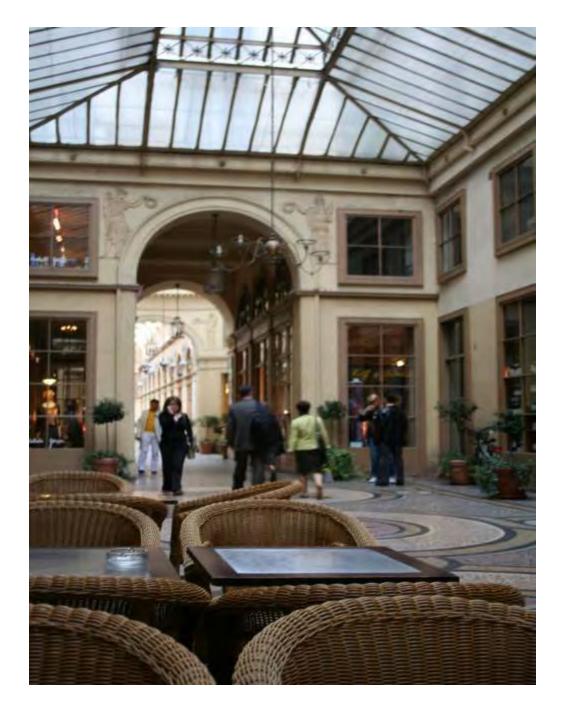
- Via strata (Lat.)
- A street is a paved road, so for that reason could found in history in urban environments

- Functions of the street: multi-purpose and multi-layered
- Traditionally residents had a strong influence on the design, maintainance street and the use of the street
- Tendency through the 17th till into the 19th century for a growing role of the urban officials and a growing accessiblity for all









# Towards a sanitary street (1850-1900)

- Growing awareness of the effects of the (urban) environment of the health of the population; alamr by cholera and typhoid epidemics
- Back ground theory: miasma's ('bad air') seen as permanent endangering the public health
- From the 1880s on: acceptance of the Pasteur germ theory



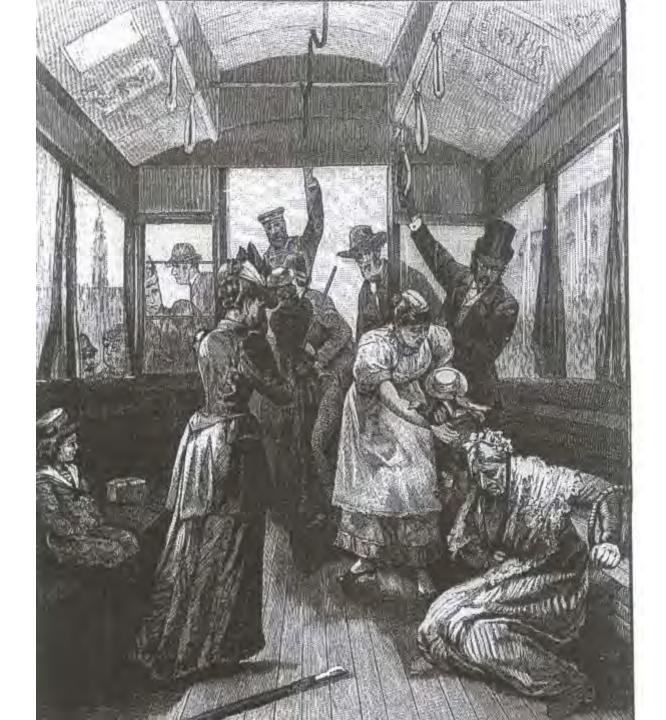




Condeniat big West E. Spanner & Z." Links Z.M.

DE HAAGSCHE GOIEVAAR SPREEKT:

Ik ben niet verwaard voor een kluin geruchtje. Daarvoor heb ik is lang bij de vischhanken geleefd, Maar zoo'n zwavelwatenstof luchtje Als het residentiewater van sich geelt — Dwarbij kas wel iedereen begrijpen Dat self een ooievaar sijn neus toe moer knijpen.





# Struggle of systems

- Cesspool system (traditional)
- Barrels (Favoured by Rotterdam city architect W.N. Rose)
- Integrated sewers (Favoured by Roterdam urban engineers as Scholten, G.J. de Jong and the Amsterdam urban engineer J.G. van Niftrik
- Pneumatic systems (from 1867 on; Charles Lienur)



#### Hamburg as source of inspiration



#### Rotterdam: 1863 decission to built an integrated sewer system and to construct a piped drinking water system





## Amsterdam, 1870

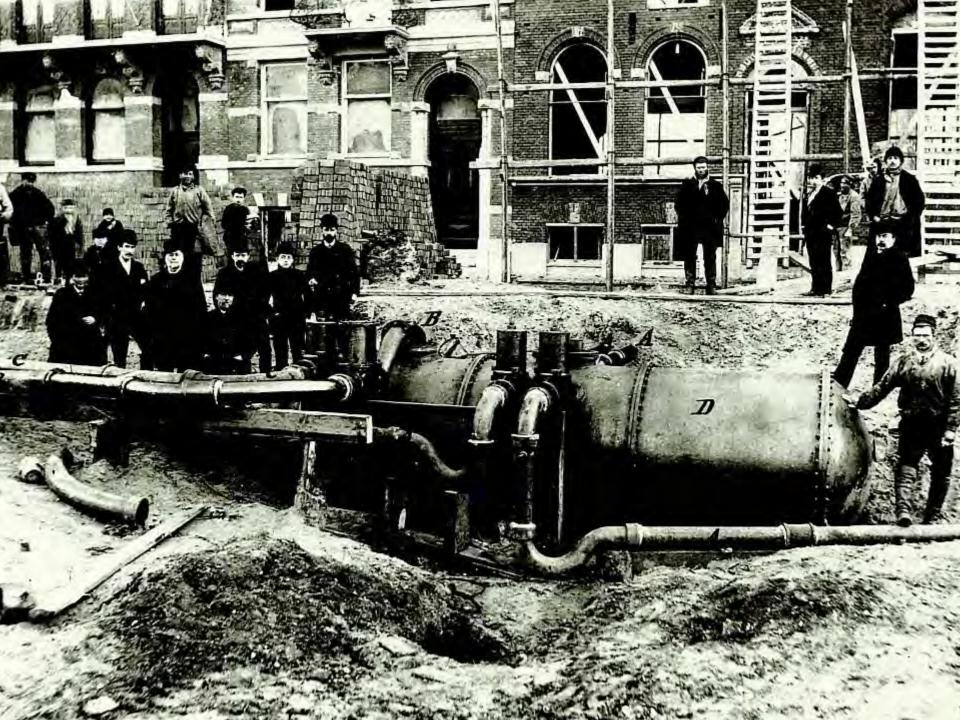
- Struggle of systems and engineers
- Van Niftrik versus the urban sanitary committee and Charles Lineur

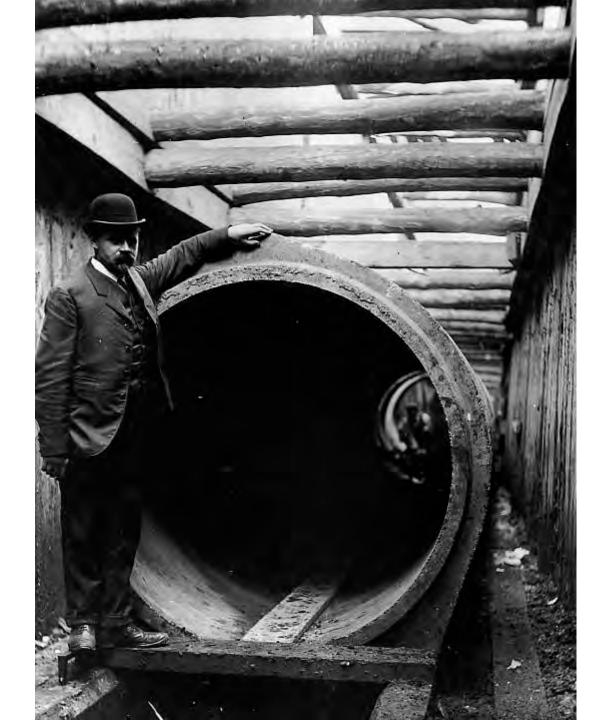
ONTWERP Tot waterverversching in de STADS GRACHTEN TE AMISTERDAM.

1 the al

Talas Harden and

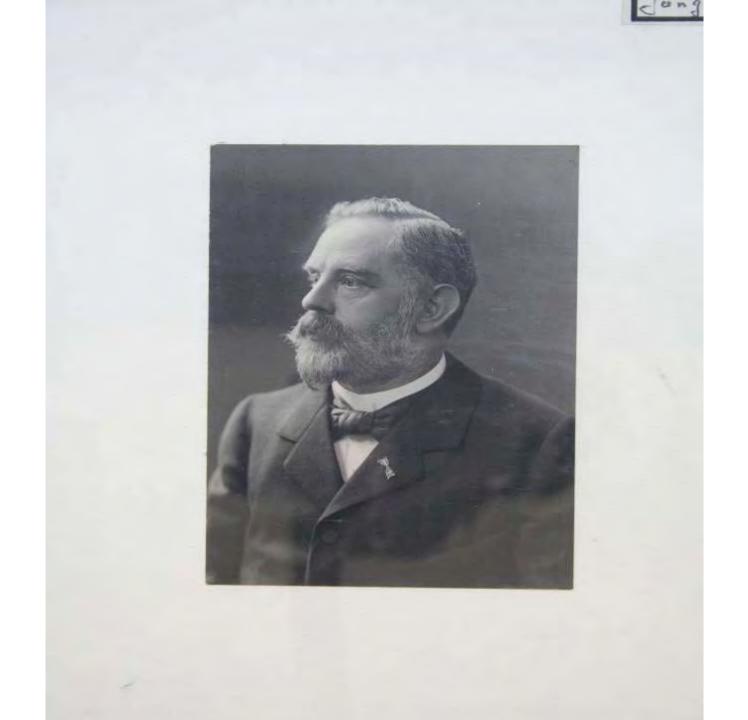
Varklaring III II maden Freedometrikerson wernenden kindegrendelen en Nedlar insgene Ketzesgerendelen IIII Innere er er kenten de Stad IIII kontelenter





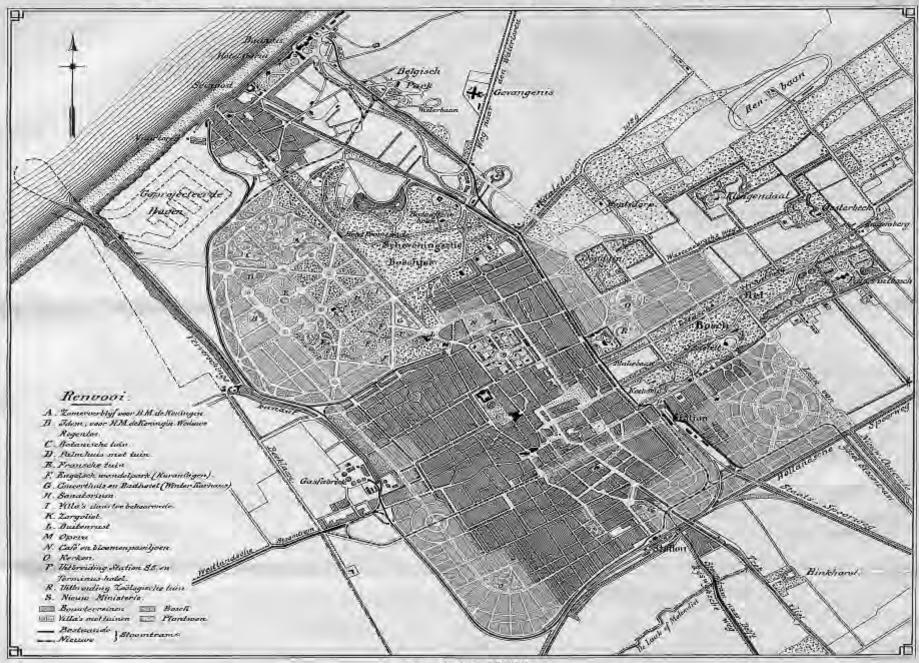
• Break through of intergrated sewer system by the example of Rotterdam (1883)

 London with its Main Drain (engineered by Joseph Bazalgette) now as source of inspiration and legatimation





Elgemeen Flan van uitbreiding en verfraaiing van 's Gravenhage.



School 1 à 25000.

16 100 Sau 1910 1500 Soon 200 N

 Re-design of the street: the spread of the sidewalk, replacement of gutters by sewers and a more direct of the municipality in the cleaning of the street







 Creation of urban boulevards from 1885 on

 Amsterdam (failed), Rotterdam (very ambitious from 1913 on) and The Hague (1913 – 1923)





Rotterdam. Coudsche-Sinnel en Oostvestplein.



## Towards a mechanised street (1870-1910)

- Railway stations as traffic junctions
- Horse drawn tramways from 1864 on (first between The Hague and the sea side resort of Scheveingen)
- From 1890 on experiments with gaspowerd and electrical tramways
- After 1900 breakthrough of the electrical tramway with overhead wires



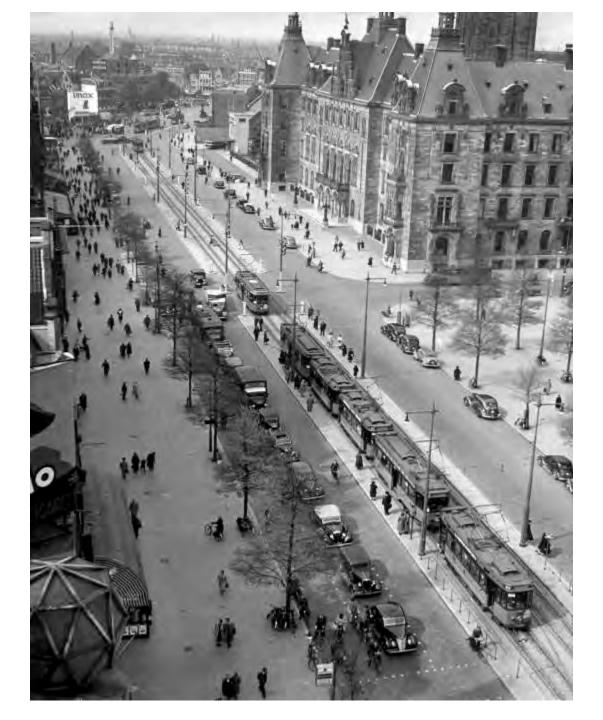




## Towards an electrifed street (1900 – 1930)

- Strong relation between the introduction of the electrical street cars and the rise of municipla electrical power stations
- After 1917: breakthough of electrical street lighting





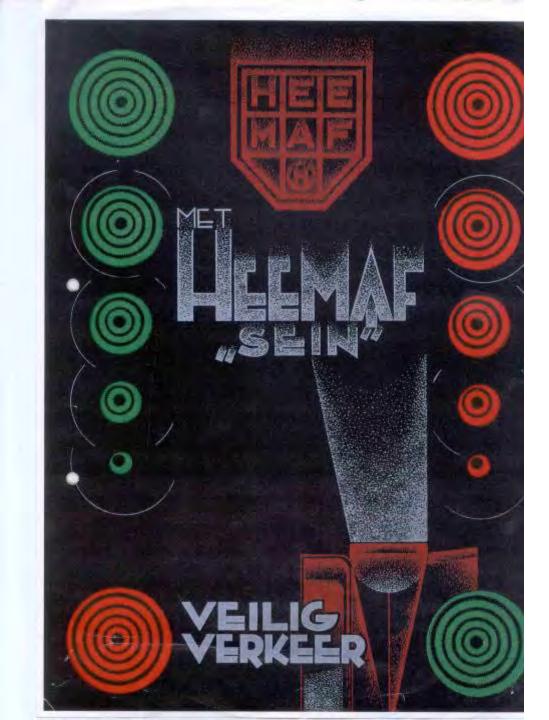
## Towards a motorised street (from 1930 on)

- Introduction of traffic police (1912), traffic lights (1926), safety islands, pedestrian crossing, traffic education (1925)
- Phased traffic lights (1934)
- Step by step loosening of maximum speed levels.



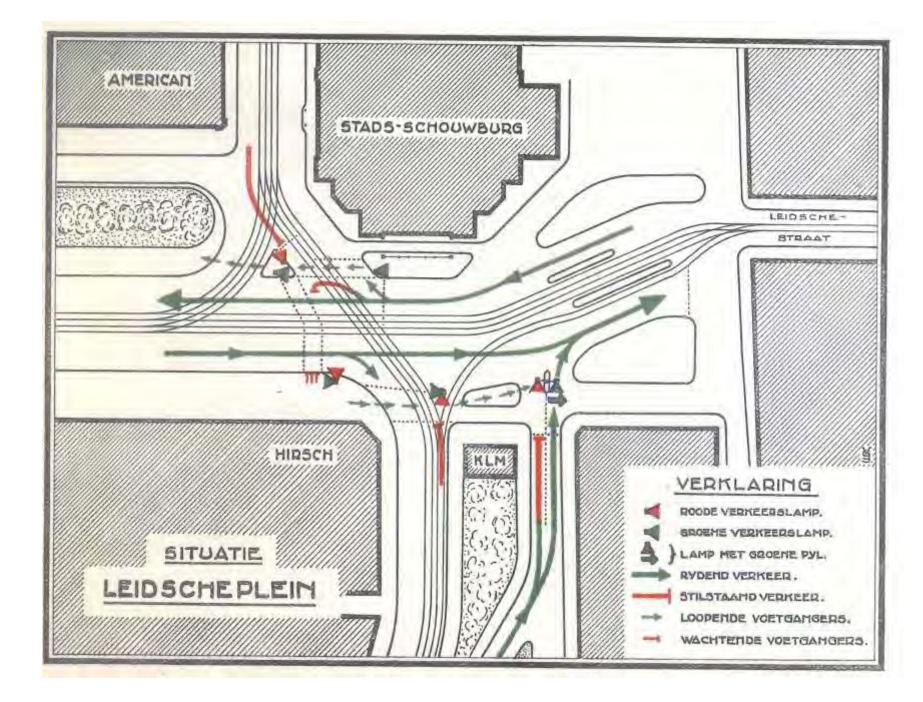


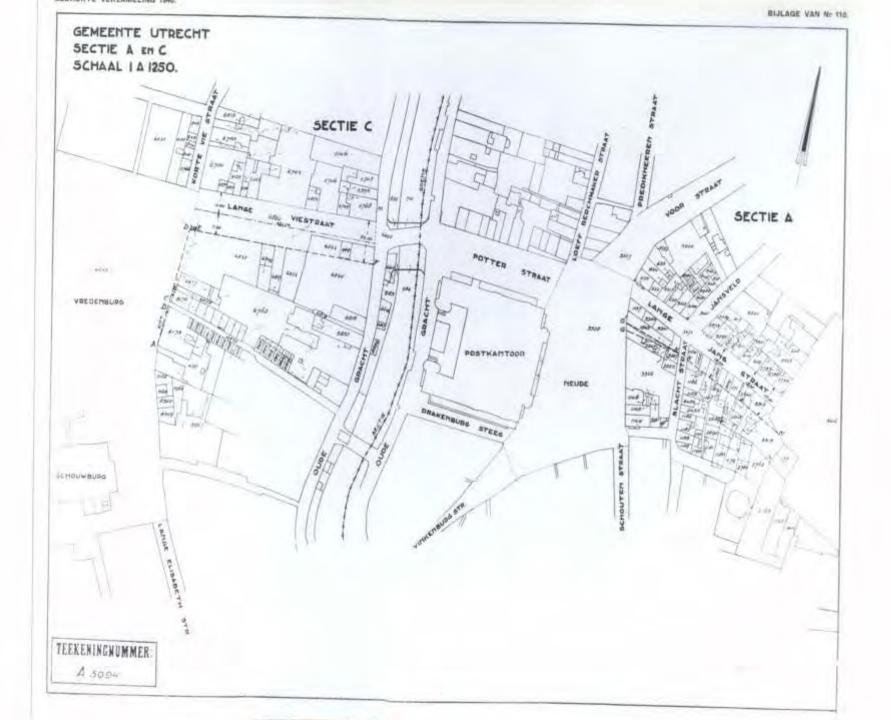






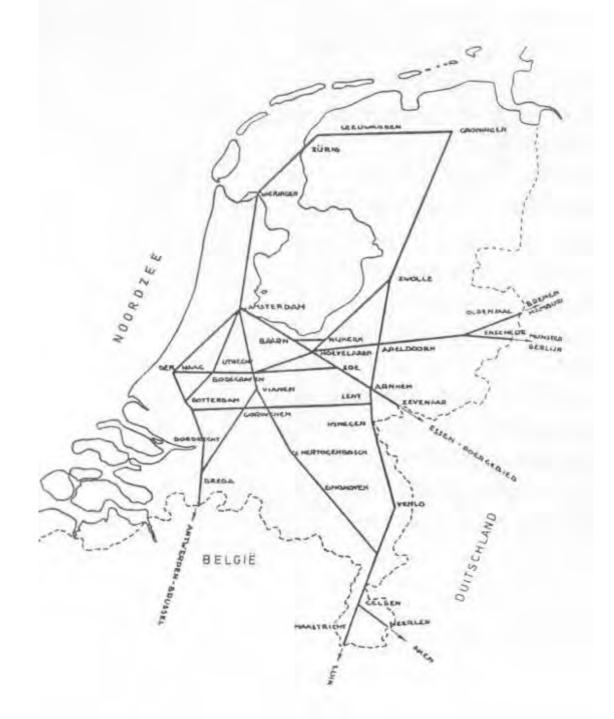




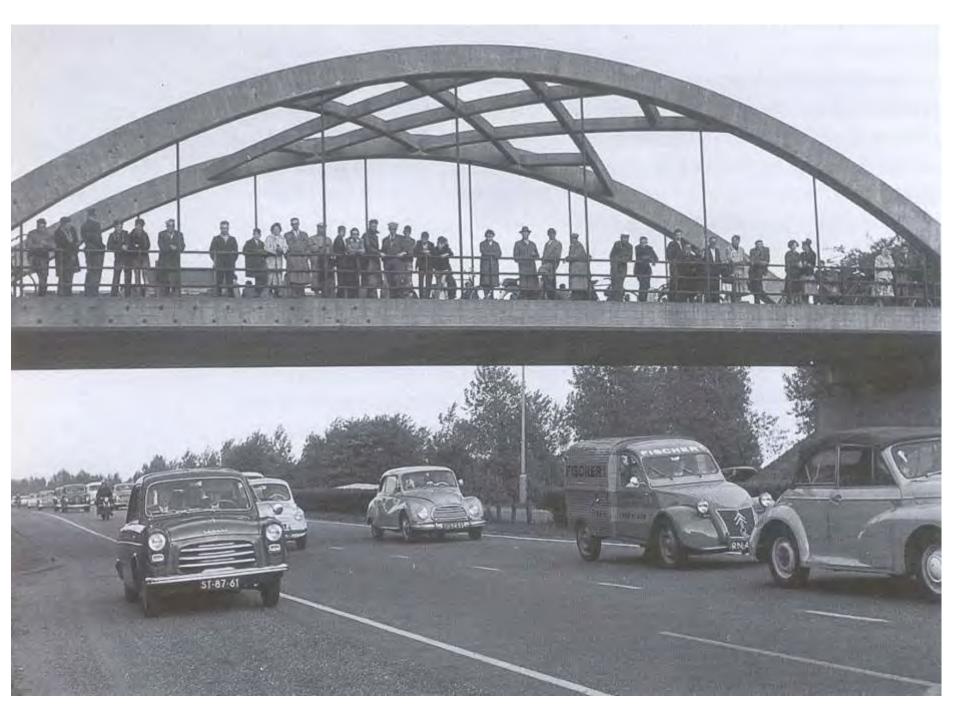












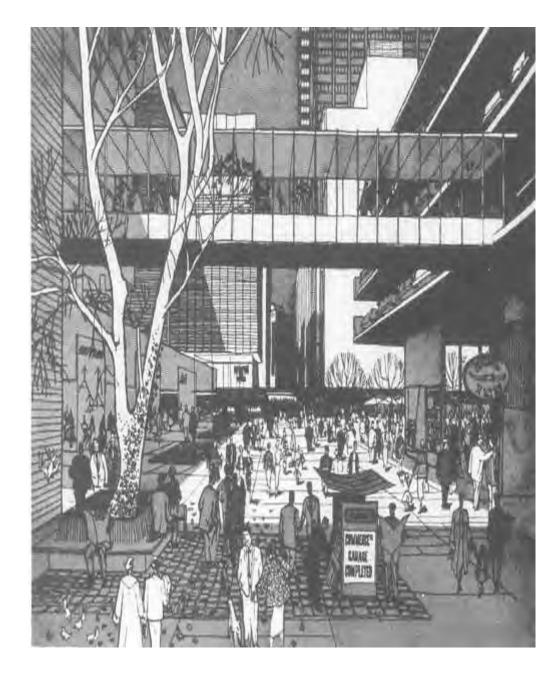
 Urban response to the construction of the national highway system:
 Utrecht, 1958: the presentation of the plan Feuchtinger (Ulm, Germany)





- Lijnbaan in Rotterdam (1953), the first shopping mall in the Netherland (in a centrum area)
- American / Austrian pioneer Victor Grun (first mall 1948)



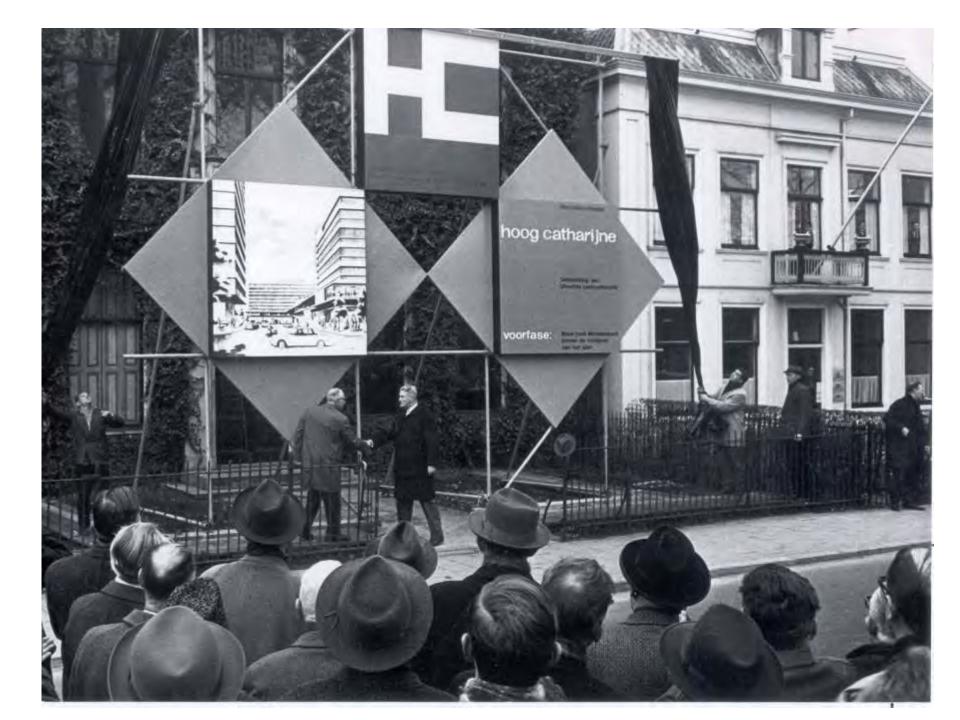


It is our belief that there is much need for actual shopping centers—market places that are also centers of community and cultural activity. We are convinced that the real shopping center will be the most profitable type of chain store location yet developed, for the simple reason that it will include features to induce people to drive considerable distances to enjoy its advantages.

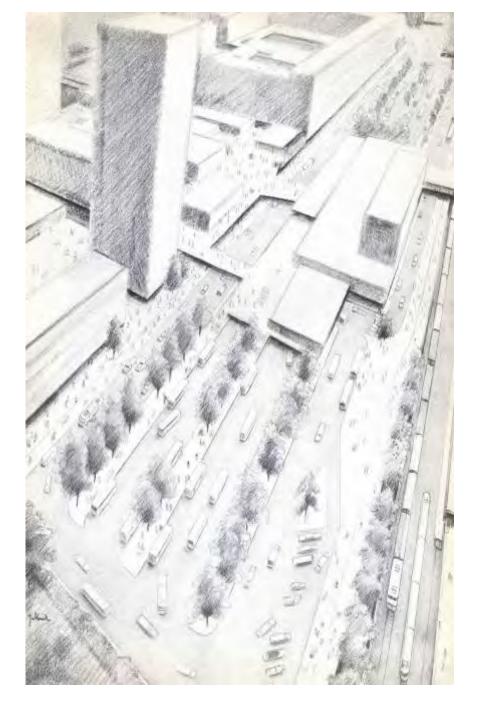
-Victor Gruen, 1948

University of Pennsylvania Press Philadelphia www.upenn.edu/pennpress ISBN 0-8122-3762-5 90000  Hoog Caharijne (Utrecht): presented in 1962, realised from 1966 on. The most ambitious centrum reconstruction in the Nehterlands after Rotterdam



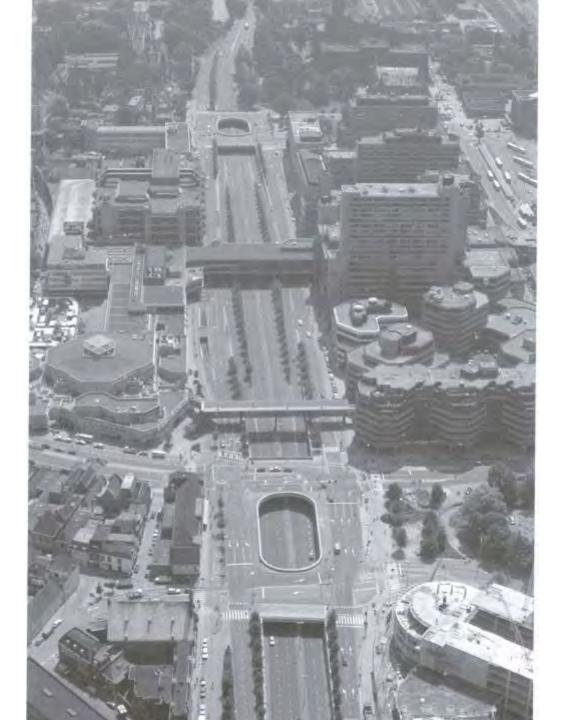




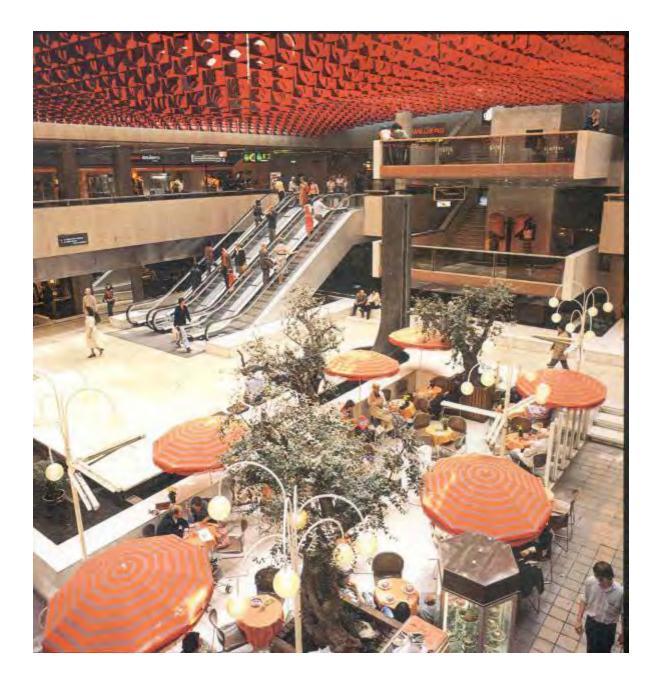


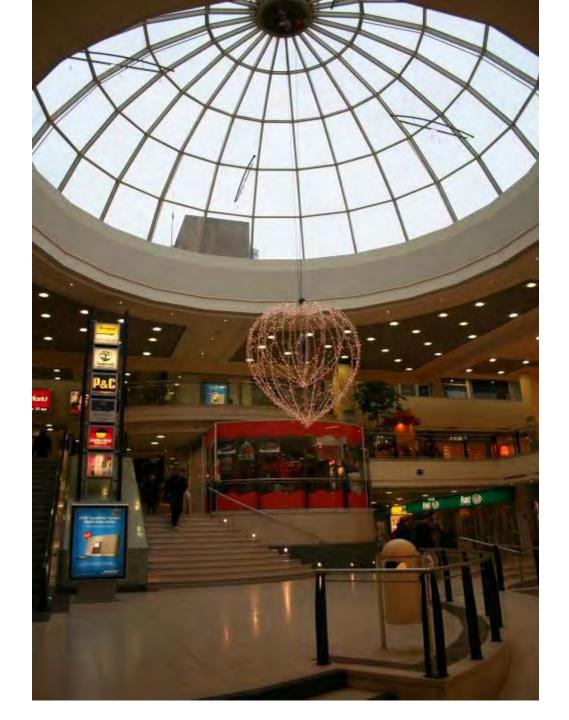


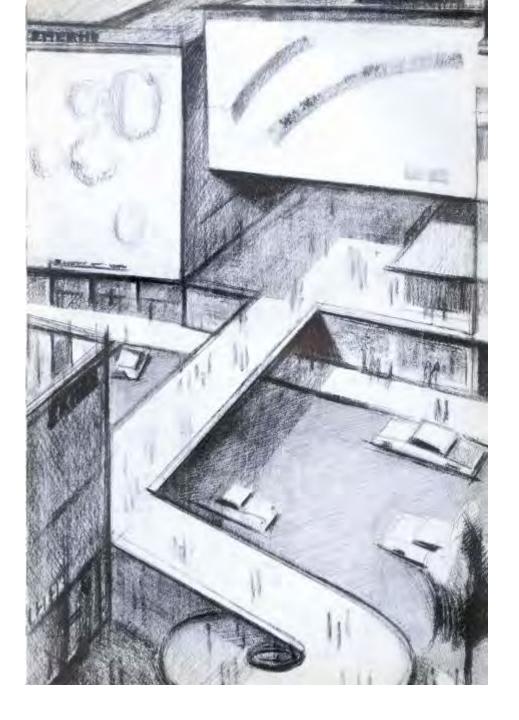




## Deutsche Grundbesitzbriefe Anlagefonds Hannover Lister Tor-KG









Co-construction of the development of technology at street level and the use of the street

- Use of street became in the course of the 19th and the 20th century gradually more and more regulated.
- Street use and users got spacialy segregated
- Rising power of professionals

