

THE GREEN CITY

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this presentation is a combination of images and text from research gathered by the Plant Publicity Holland, projects designed by Niek Roozen garden and landscape architects, and others.



The Green City philosophy brings everyday life back in contact with nature.

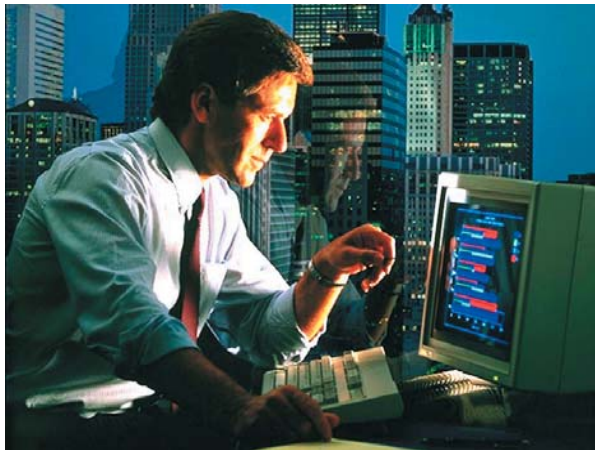
Green in cities is good for aesthetics, ecology and economy.

Trees in cities help solve many environmental problems such as poor air quality, noise pollution and water management.

Trees can reduce the amount of energy needed in buildings.

Green makes people feel good and live healthier lifestyles.

Green space does not cost money, but brings profit from a social and economic point of view.



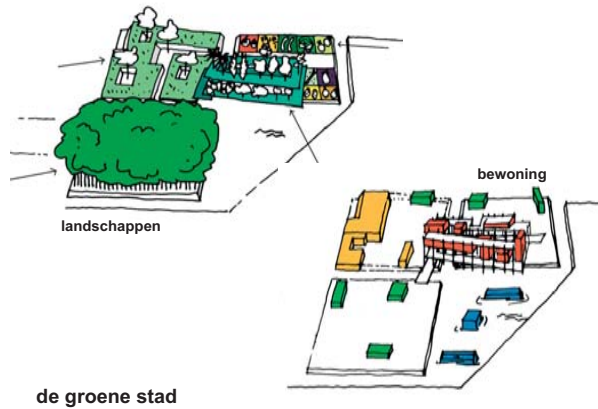


The Green City Initiative was started at the Floriade 2002.

The Floriade, designed by Niek Roozen as chief architect, was visited by 2.5 million visitors.

The plan was divided into 3 main areas: Near the Roof with the largest structure covered in solar panels in the world, Next to the Hill with the 40m high Big Spotters Hill and smaller exhibition islands, and On the Lake with innovative plant and flower combinations.





Niek Roozen and DP6 Architects worked out the Green City concept on three of the islands in the park.

The islands demonstrated the role of green in the public and private realm, both inside and outside.

The pavilion was full of roof gardens, courtyards and balconies.

It was emphasized that green in our direct living environment has a positive effect on the health and social interactions of residents and workers, tourism and recreation, economics and the environment.



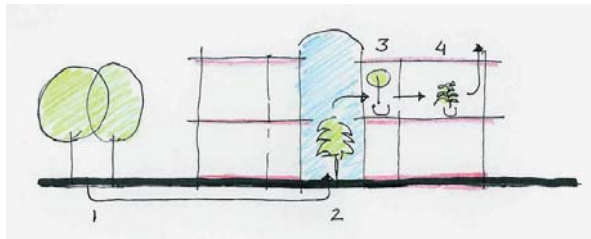


Source: Wolverton, from TNO-rapport 21573 / 018

Work performance and productivity increase, employees are less stressed and there are less sick days when plants are introduced onto the work floor.

Hospital patients whose rooms look out onto green recover quicker and require less medication.

Roof gardens can be used to regulate temperatures inside buildings.



ES Consulting



Real Estate For Sale
newly built apartments in green environment



Green encourages healthier lifestyles, which benefits cities both socially and economically.

Room must be made for green in the planning stage of projects so the spaces are usable.

Green raises the quality of residential areas and housing prices.

Green encourages social contact among residents and thus creates safer neighbourhoods.



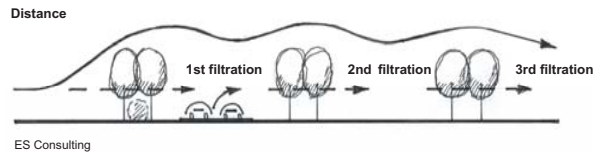
Air pollution, temperature and noise can all be reduced by using more trees.

Certain tree species have a better capacity to absorb gaseous pollutants (NOx) and fine dust (PM10) than others.

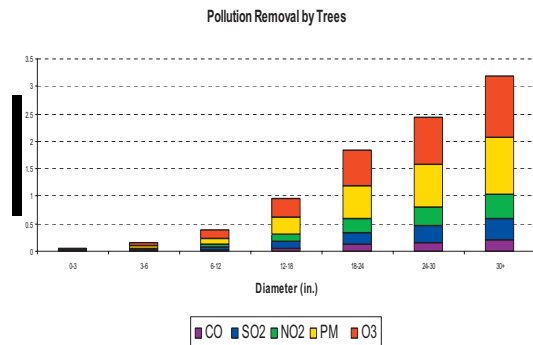
The larger the tree, the more pollution it can remove from the air.

Trees and green moderate city temperatures by creating shadow on surfaces and in buildings, creating humidity in the summer and controlling wind chill and energy loss in winter.

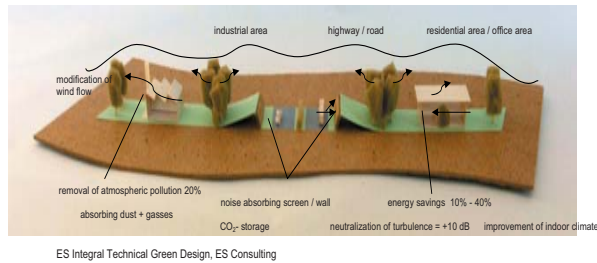
Trees absorb and refract or dissipate noise.



ES Consulting



From D.J. NOWAK 2002 in Chicago

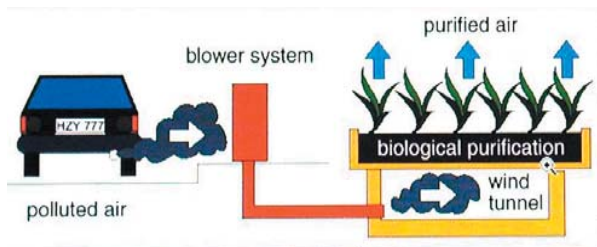


ES Consulting in The Netherlands has developed a schematic design for using trees along highways to buffer adjacent industrial, residential and commercial areas.



This method reduces the amount of fine dust in the air in neighbouring developments by 25-30%.

The system along the highway in Higashi Osaka provides visually attractive greenery along roads as well as air filtration.



The polluted air gets sucked into a blower system, travels through a wind tunnel, passes through the soil and plant root zones and is filtered by the biological processes of the plants.



The Green City concept has been applied in housing projects in The Netherlands.



The Millinxbuurt in Rotterdam was a typical case of inner city degradation. The city joined forces with a housing corporation and residents and demolished or renovated residential buildings and created a park. The prices of houses went up, people actually wanted to live there, crime went down and the park became a symbol of progress for the residents.



De Bogen in Nijkerk used a bottom-up approach and the green spaces designed by students were a success with the home buyers.



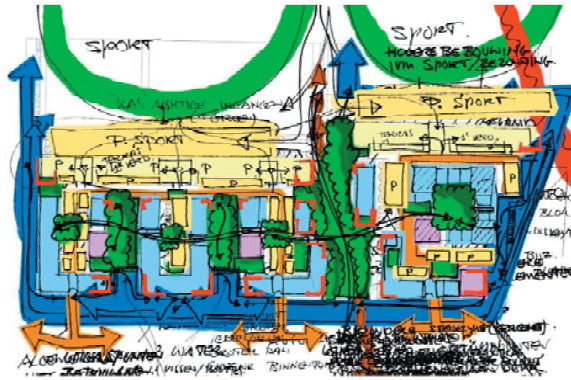
The office of Niek Roozen and Plant Publicity Holland have been working on projects to help spread the Green City philosophy across the globe.



The pavilion and garden at the 2003 IGA in Rostock, Germany demonstrated plant combinations for public and private gardens.

Award winning stands have been created at garden shows across Europe in the past few years promoting the Green City philosophy.





The Papelaan in Weesp was designed by a team of landscape architects, architects and urban designers to create a neighbourhood based on green.

Public green spaces between the houses are connected to the water and the small multifunctional streets.

Private gardens and terraces are separated by green instead of using fences and sheds.



Alle woningen liggen aan een straat.
Een straat waar gemeenschap en gebied wordt, waar auto's rijden en waar geparkeerd wordt. Een straat waar activiteiten zijn en waar gespeeld kan worden.
Groen dat een belangrijk element zijn, hagen langs perceelranden, bomen in groepjes en rijen en solitaire beplanting op een speel- of zitplek. De juiste boom op de juiste plaats.

wonen aan een straat

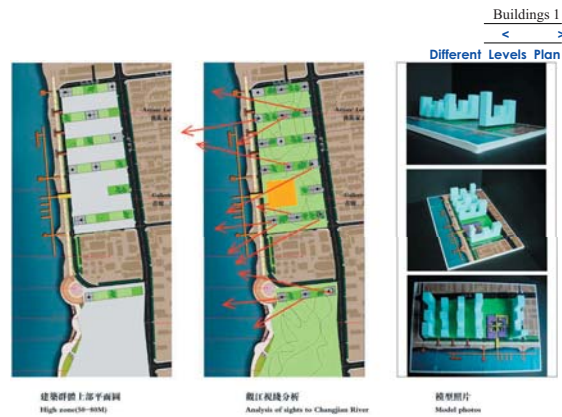


Alle woningen hebben een priv e plek, een kleine tuin of een groot terras. Een deel van de woningen grenst aan het water (blauwe zijde), waar je kunt vissen, bootje varen en misschien ook nog schaatsen. Een gemeenschappelijke oeverbeplanting zal voor een natuurlijk beeld zorgen. Een ander deel van de woningen grenst aan een gemeenschappelijke tuin (groene zijde) waar je overloeg een speelplek, zitgelegenheid en/of een barbecue kan worden geplaatst. Geen schermen, geen schuttingen, maar hagen of klimplanten bepalen de groene structuur.

wonen aan het water of aan een groen hof

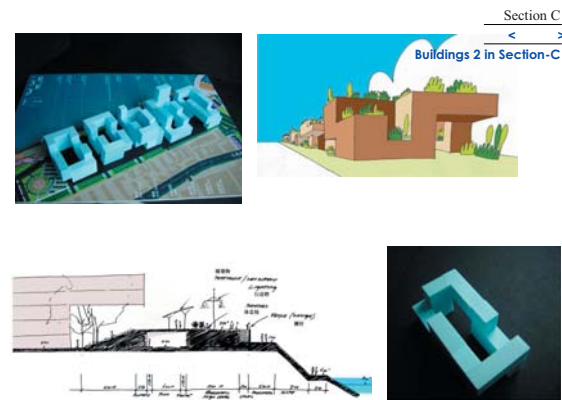


The Wuhu City Riverside Park is a 9 kilometer long waterfront development where green is used as the basis in order to create a green skyline.



Green has been incorporated into the buildings by providing roof gardens, courtyards, parks and green spaces that continue under the buildings.

The green concept for the entire development was created first and the vision was carried over to the architects instead of the other way around.





The growing, transportation and planting of trees needs to be understood by the nurseries, designers and decision makers.

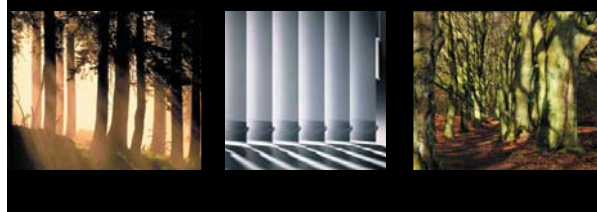
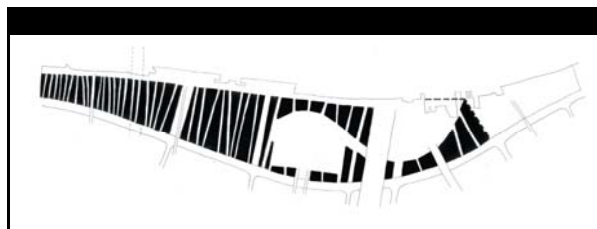
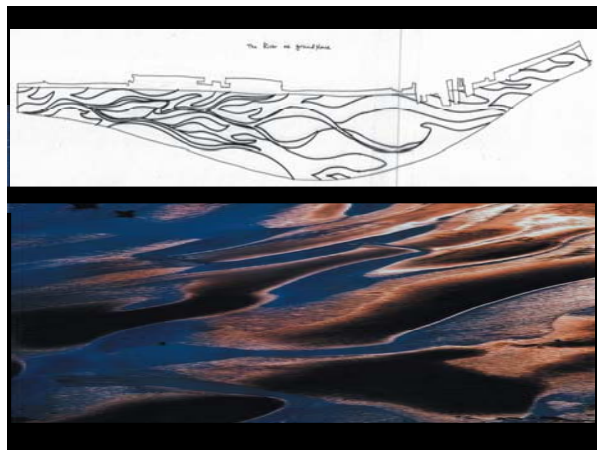


In China, trees are either plucked right from existing forests or grown as bald trunks.

In The Netherlands, trees are grown in quality tree nurseries and are transported with heavy root balls.



When mature healthy trees are used in design, the desired effect is immediate. It costs more at first, but the benefits soon outweigh the costs.



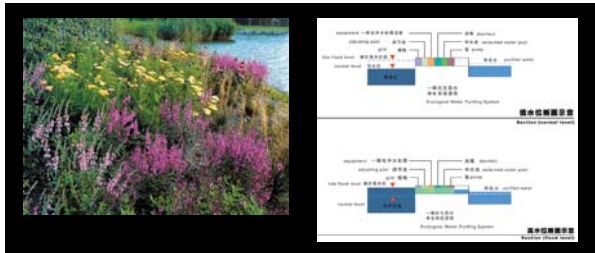
The theme of the World EXPO 2010 in Shanghai is “Better city, Better life”, and the Green City philosophy fits in perfectly.

The design competition for the Pudong Central Green Area on the site was won by the NITA Group, a team of designers and experts in China and The Netherlands, with Niek Roozen as project leader.

The groundplane of the park has an organic river form. The trees are superimposed on top in a very linear and tight design. Shade and cooling are essential in the Shanghai climate, both during the EXPO and after when the surroundings are built up into a residential area.



Many Green City principles are used in the design of the park, one of the reasons it won first prize in the competition.



The wetland area is designed as a water treatment system using plants which are most effective for this process.



The trees along the road were chosen because of their ability to reduce auto emissions (NOx), such as Robinia pseudoacacia and Salix babylonica. The trees on the top of the hill were chosen because of their ability to catch fine dust (PM10), such as Cinnamomum camphora and Ginkgo biloba. The trees on the slope to the water were chosen to provide maximum shade.

