

Landscape as basis

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05

LANDSCAPE AS BASIS

Sustainable urbanisation, climate adaptation and biodiversity require a design approach that takes the landscape as its starting point. The existing landscape logic provides starting points for planning and designing a socially and ecologically inclusive spatial environment across scales, from city to street profile. The landscape offers structure, ecological coherence and variety, but is also flexible and multi-functional. Landscape also represents spatial-aesthetic values such as beauty and orientation in space and time. After all, the landscape is the result of man's long-standing interaction with his natural environment. But how can we design spatial projects in a landscape-conscious way?

Firstly, by taking the natural landscape system and the processes associated with it as a starting point. The natural system is formed by relief, water, soil, geological subsoil, climate and related ecosystems. The subsoil determines where you can build or, rather, not build. For example, it is better not to build in areas that are naturally prone to flooding, and not to build conventionally in peatlands, which causes subsidence by drainage and oxidation. We can also follow the logic of the landscape by taking into account natural height differences - such as moraines, creek ridges, natural levees, and dry and stream valleys - in spatial planning and design. These determine the natural direction of water flow. Taking into account where water infiltrates, is retained or collects, allows us to work towards a safe, sustainable water system. In green spaces, the obvious choice of plant species is indigenous, adapted to local, natural conditions in order to ensure healthy planting and to contribute to ecological coherence and biodiversity. Inspiration for planting and management can be gained from looking at the (potentially) natural vegetation and related ecological succession.

Landscape-conscious design also makes use of landscape history. In the course of time, every landscape changes, with certain structures, patterns and elements remaining, and others developing or being replaced by new ones. Old structures often contain important information about the condition of the terrain and cultural attitudes. By consciously allowing historical landscape elements to be part of spatial development, the

identity of the area is strengthened. For example, by incorporating an old avenue of trees into a new urban development, or by using historic groove forests for water buffering in a stream valley. In this way, the landscape remains rich in meaning and the landscape of the past becomes part of the future.

Spatial perception is a crucial part of landscape-conscious design. By working with the spatial-visual characteristics of a landscape (such as the size and scale of the space, whether it is enclosed or open, its orientation, whether there are clear boundaries, the presence of sight lines, etc.), one can strengthen legibility and enrich the spatial experience. Unity, spatial layout and external appearance are important spatial properties that determine the perception and appreciation of green and blue, and of the built environment.

Landscape is also a social construct. Landscape-conscious design is certainly also about cooperation between citizens, experts and authorities in order to make shared decisions, learn together and co-create.

In summary, follow the logic of the landscape and make use of the related natural processes in spatial developments - from urban expansion to street profile. This guarantees sustainability, cohesion and legibility.

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EXISTING STRUCTURES



'Inspiration can be gained from looking at the natural vegetation and related ecological succession.'

HOW GREENERY WORKS

Every area has its valuable aspects and history. Respecting these aspects increases the added value of greenery and means green can be utilised more quickly and maintained at lower cost. Broadly speaking, this involves existing greenery, soil life and soil structure. In new developments, existing, larger trees should certainly be preserved as much as possible, in order to continue to provide the value they have built up over many years. And new developments should disturb soil life and soil structure as little as possible. This requires a different approach from urban planners, architects, developers and contractors. Some costs will precede subsequent benefits.

Imagine a new residential area with only newly-planted, young trees, compared to a residential area where housing has been built between existing, tall trees. The identities of the two districts will be fundamentally different. In practice, this pays off in terms of climate benefits and property value, among other things.

01

Historic maps

Document the history of the area at the beginning of the planning process. The history of a natural stream can continue to be seen in, for example, the soil structure and the water table, after the area has been developed. By following the old structures as far as possible in the new design, we develop in line with history, rather than going against it. This also has cultural, historical value.



02

Marking trees

Can a 70-year-old oak tree get in the way? As it's of practically irreplaceable natural value - plan around it! The very first action taken on the grounds of the Floriade in Almere, later to become the Hortus residential area, was tree marking. Every tree of appreciable value was marked, 'do not cut'. In the plans and the completed project, practically all these trees have remained and are now proving their worth.

RECOMMENDATIONS

03

Limitations

Urban planners and architects must realise that the preservation of existing green structures such as trees and ground levels also introduces limitations. It may require different locations for roads, paths or buildings. The existing site provides the best canvas for creation of new construction when it is in its most undisturbed form. This creates much added value and brings character, but also requires adaptability.

04

The root base is sacred

The root base of existing trees determines the ground level. Practically all trees die when the level of the soil at their base changes. If the ground level has to be adjusted, embankments or retaining walls should be used. The alternative is to replant or, in extreme cases, to replace the tree.



05

Contractor checks

Contractors are not used to having trees on the job site. They are unfamiliar with their value and fragility. Frequent consultation and checks on felling, pruning, earthwork and excavation are essential in order not to lose the tree at the last minute.



06

No sand layer

In many construction projects, a thick layer of sand is first applied to existing land. Upon completion, part of it is replaced by black soil. Existing soil life is lost, the water balance of the soil is poor and the applied soil is practically lifeless. In many cases, it is possible to build on existing land, thereby preserving its value.

07

Protecting trees

Trees on a building site are fragile. Several precautionary measures can be taken to protect them. First of all, the trunks must be protected. This is done with a collar of planks, to protect against mechanical damage, or with textile against sun damage (e.g. in the case of beeches). The roots and soil structure can be protected with road plates, or better still, with a fence outside the crown perimeter.



08

Cost aspect

Developers, contractors and, possibly, other parties also incur additional costs in preserving existing greenery and structures as much as possible. By budgeting these costs in advance, they become an integral part of the entire project and all involved parties become obliged to respect the relevant agreements.