



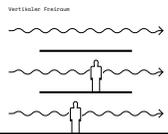
Thinking about verticality - A change of perspective expands space and opens up for new points of view. This change also enables a new way of thinking about the future of urban open spaces. Because if we expand horizontal open spaces into verticality, we find new and inspiring perspectives. Considering urgent social problems and climatic challenges worldwide, these new approaches are more necessary than ever: How do we want to live together in the city of the future? We need to find new answers - especially spatial ones.

The basis of this design-based doctoral project is the consideration of the relationship between verticality and open space – in a first step separately with their specific characteristics and in a next step in the spatial combination: as “vertical open space”. In a first definitory approach, a “vertical open space” is a layered, accessible „exterior space“ with at least two levels.

Till now, a systematic reappraisal of this type of open space has not yet been carried out. For a wider and conscious use of „vertical open space“ in design practice, through the professions of Landscape Architecture and Architecture a specialist knowledge is essential. The design-based doctoral project aims at closing this gap and providing an overview of specific features of „vertical open spaces“ in addition to basic principles such as categorisation and definition. This knowledge will and has been acquired through the elaboration of a thematic approach, analyses of own design projects and built examples through case studies, test designs and also through the consideration of history.

VERTICAL OPEN SPACES

The following is the first attempt to collect and structure our knowledge of these basic principles of „vertical open spaces“. Accordingly, this overview of specifics of vertical open spaces should be understood as a first set of design - as an approach. This knowledge developed over a period of five years, was gained through own designs, 110 00 project analyses and the evaluation and interpretation of these via cluster analyses according to Heinz Bode (Die Kunst der Interpretation, in: See Film, v.a. [Hg.]: Quintessenz Forschung Ein Handbuch, Reinbek bei Hamburg: Rowohlt, 2000; S. 569-578), selected 03 „Best Practices“ analyses of built projects, can planned 04 conceptual implementations and general literature and internet research.



**SPEECH
HOSPI
VERTICALITY
CHARACTERISTICS
SPACES
STRUCTURE + ACCESS**

Thinking open spaces vertically
- new perspectives

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PROGRAMME + LAYERING OPEN SPACE

The use of verticality in relation to open space provides a new spectrum of possible uses. Programmes such as climbing for example, playfully exploit the potential of height (02 project analyses). Due to spatial limitations, the possibilities are also limited (01 own designs). Some classic open space uses such as ball games that require a lot of floor space are often difficult to realise vertically. Moreover, the consideration of gravity is also an issue - objects used can fall. Gravity can also be seen and consciously staged as a design potential, such as water games over several storeys.

The layering of open space creates a “top” and a “bottom”. The natural supply of horizontal open spaces with light and rain is only marginal in a vertical open space. The spatial situation is different and must be designed and developed accordingly. (02 Project analyses) Spatial layering also often contains a separation that can have consequences on a social level. Sometimes, the upper layers acquire an exclusive character, creating a dark, less attractive „bottom“. The lower floors also have their advantages in terms of weather protection. Through the layering in the vertical direction, a vertical open space also automatically receives increased visibility on a horizontal open space. The open space thus also becomes three-dimensionally visible in the urban structure. This special feature also partly explains why vertical open spaces, such as High Line Park in New York, can contribute to the gentrification of urban districts (03 „Best Practices“ High Line Park).

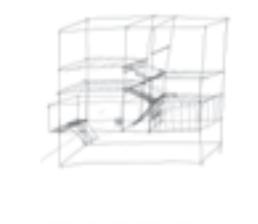


SAFETY

An accessible height-orientated outdoor space also always carries the risk that the users of that open space may fall and thus suffer injury. Particular care must be taken with children. Moreover, there is always the danger, especially with the use of games, that objects can fall to the lower levels. Accordingly, in contrast to horizontal open spaces, a vertical open space needs special attention for fall protection systems and safety. (04 Implementation Manual) Particularly in cases with increased building density, vertical open spaces also offer potential for conflict with adjacent residential uses in the case of frequent use. The resulting noise is not primarily on the ground floor - as it is the case with horizontal open spaces - it is also throughout the height of the structure and on other floors. (03 „Best Practices“ WDF Park)

EXPERIENCE OF SPACE

Verticality, leaving the horizontal and looking up“ provides great fascination. That this change of view is quite unusual becomes clear when we realize that humans have always moved and oriented themselves horizontally. For this reason, optical power was mainly oriented in the horizontal plane, because the danger zone was mainly on the side. (Fritzi, ger, Adrian, „Der Mensch und seine Zeichen“, Matrix Verlag, Wiesbaden, 2004, pp. 90-92). Due to this praxeologic characteristic, buildings that offer a view and are points of orientation, such as observation towers, are of particular importance (02 project analyses). Through the staging of the vertical, a vertical open space offers an attractive, playful and exciting experience.



VEGETATION

Different vegetation and maintenance concepts are more necessary for a vertical open space than for horizontal open spaces, not only because of the often missing ground relation. (02 Project analyses) Dealing with the time factor is a major challenge here. (01 own designs) Trees have to grow and often only develop their full splendour in old age. The architecture is often contrary to this - it begins to age and is either renovated or demolished. It is therefore important to consciously design a hybrid building with a view to the time factor and to make the plant selection accordingly. (03 „Best Practices“ Pflanzentempel).

