

CHILDFRIENDLY SOUTH TOWN
integration of play into the public spaces



CHILD FRIENDLY SOUTH TOWN
integration of play into the public spaces



THEORETICALLY - ANALYTICAL PART

Bc. PETRA PCHÁLKOVÁ

Master thesis

ATELIER REHWALDT

2021 / 2023



Faculty of Architecture
Department of Landscape architecture
Czech Technical University in Prague



Master thesis assignment

České vysoké učení technické v Praze, Fakulta architektury

2/ ZADÁNÍ diplomové práce

Mgr. program navazující

jméno a příjmení: PETRA PCHÁLKOVÁ
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téma diplomové práce: JIŽNÍ MĚSTO PŘÁTELSKÉ K DĚTEM
Integrace hry do veřejného prostoru

CHILD FRIENDLY SOUTHTOWN
Integration of play into the public spaces

zadání diplomové práce:

1/ popis zadání projektu a očekávaného cíle řešení

description of the project assignment and the goal of the project

Diplomová práce se zaměřuje na rehabilitaci sídlištních prostranství určených k dětské rekreaci na území Jižního Města. Cílem je vytvořit krajinářsko-urbanistické návrhové řešení pro vybranou, urbánně ucelenou oblast, které posílí současné hodnoty místa a zároveň přinese hodnoty nové. Snahou řešení je zvýšení nabídky prostorů pro rekreaci a hru nejen mladé generaci, ale i ostatním zájmovým skupinám. To vše přístupy ekologickými a udržitelnými, reagující na současné a budoucí potřeby a zájmy společnosti.

The diploma thesis focuses on the rehabilitation of housing estates spaces intended for children's recreation in the territory of the South Town. The goal is to create a landscape-urban design solution for a selected, urban integrated area, which will strengthen the current values of the place as the same time bring new values. The aim of the solution is to increase the offer of spaces for recreation and play not only for the young generation, but also for other interest groups. All this with ecological and sustainable approaches, responding to current and future needs and interests of society.

2/ obsah content

- | | |
|---------|----------------------------|
| 1. část | TEORETICKO – ANALYTICKÁ |
| 2. část | NÁVRHOVÁ |
| 1. Part | THEORETICALLY - ANALYTICAL |
| 2. Part | PROPOSAL |

3/ popis závěrečného výsledku, výstupy a měřítko zpracování description of the results, outputs and scale

Celkový závěrečný výstup bude mít podobu dvou zpracovaných hlavních částí.

Výsledek **teoreticko – analytické** části je teoretický přehled základních oblastí vztahujících se k tématu práce. Tato část přechází od obecných teoretických souvislostí týkajících se tematiky *děti, hry, měst, plánování a hřišť*, až k samotnému studovanému území – *Jižnímu Městu*. Výsledky studování Jižního Města samotného, mají podobu analýz shrnuté v poslední kapitole této části.

Výsledkem **návrhové části** je celková návrhová situace (1:2500) vybraného komplexního území a návrhová situace konkrétního prostoru (1:500). Dále to budou koncepční i návrhová schémata, axonometrie, vizualizace a řezy. Závěrečná podoba dílčích výstupů a jejich měřítko budou během semestru upřesněny a odsouhlaseny vedoucím diplomové práce.

The overall final output will take the form of two elaborated main parts.

The result of the **theoretically - analytical** part is a theoretical overview of the basic areas related to the topic of the thesis. This part moves from the general theoretical context concerning the themes of children, play, cities, planning and playgrounds, to the study area itself - South Town. The results of studying the South Town itself, take the form of the analyses summarized in the last chapter of this section.

The **proposal part** results in an overall design situation (1:2500) of the selected complex area and a design situation of the specific area (1:500). Furthermore, it will be conceptual and design diagrams, axonometries, visualisations and sections. The final form of the sub-outputs and their scales will be refined and agreed by the thesis supervisor during the semester.


4/ seznam dalších dohodnutých částí projektu (model)

list of other agreed parts of the project

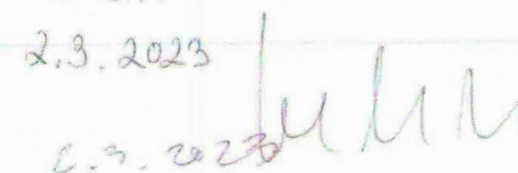
PORTFOLIO A4 / 2x
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FYZICKÝ MODEL NÁVRHU / 1x
CD VÝSTUPY / 2x

PORTFOLIO A4 / 2x
POSTER A1 / 4x
PHYSICAL MODEL OF THE AREA / 1x
CD OUTPUTS / 2x

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Date and student's signature


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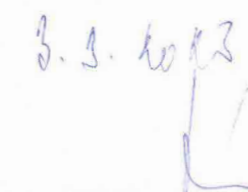
Datum a podpis vedoucího DP
Date and thesis supervisor's signature


2.3.2023

Datum a podpis děkana FA ČVUT
Date and dean's signature



registrováno studijním oddělením dne

3.3.2023


ČESKÉ VYSOKÉ UČENÍ TECHNICKÉ V PRAZE
FAKULTA ARCHITEKTURY

AUTOR, DIPLOMANT: Bc. PETRA PCHÁLKOVÁ
 AR 2022/2023, LS

NÁZEV DIPLOMOVÉ PRÁCE:
 (ČJ) JIŽNÍ MĚSTO PŘÁTELSKÉ K DĚTEM
Integrace hry do veřejného prostoru

(AJ) CHILD FRIENDLY SOUTH TOWN
Integration of play into the public space

JAZYK PRÁCE: ANGLICKÝ JAZYK

Vedoucí práce:	Dipl. Ing. Till Rehwaldt	Ústav: 15120 Ústav krajinářské architektury
Oponent práce:	Ing. Radka Matoušková	

Klíčová slova (česká):	Jižní Město / sídliště / děti / hra / městské plánování přátelské k dětem / strategie plánování přátelské k dětem / veřejný prostor / sociální integrace / živé město
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Anotace (česká):	Diplomová práce se představuje stanovené přístupy městského plánování přátelské k dětem implementované na území nejrozsáhlejšího sídliště České republiky – Jižního Města. Přístupy jsou zakotveny v navržené strategii plánování přátelské k dětem, která reaguje na potřeby dětí i dospělých, na současné fungující zahraniční přístupy plánování a na charakter studovaného pražského Jižního Města. Práce mimo jiné otevírá téma aktuálního významu nabídky kreativního a nesegregovaného prostoru pro trávení volného času dětí ve veřejném prostoru, pro kterou má Jižní Město jedinečný potenciál. Touto prací je představeno plánování a navrhování vhodné pro děti, mající ve výsledku pozitivní dopad na všechny obyvatele území, potkávajících se v udržitelných, živých a radostných veřejných prostorech.
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Anotace (anglická):	The Master thesis presents the established approaches of child-friendly urban planning implemented on the territory of the largest housing estate in the Czech Republic - Jižní Město. The approaches are anchored in a proposed Childfriendly Strategy that responds to the needs of children and adults, to current international planning approaches in operation and to the character of the Prague South Town under study. Among other things, the thesis raises the issue of the current importance of offering creative and non-segregated space for children's leisure time in public space, for which the South Town has a unique potential. Through this work, planning suitable for children is presented, resulting in a positive impact on all inhabitants of the area, meeting in sustainable, lively and joyful public spaces.
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Prohlášení autora

Prohlašuji, že jsem předloženou diplomovou práci vypracoval samostatně a že jsem uvedl veškeré použité informační zdroje v souladu s „Metodickým pokynem o etické přípravě vysokoškolských závěrečných prací.“

V Praze dne 19.5. 2023

podpis autora-diplomanta



Tento dokument je nedílnou a povinnou součástí diplomové práce / portfolia a CD.

*And when we grow up
We must never forget
That hidden away,
Deep down
Within us
Is our forever inner child
Resting, silently
Forever waiting
Forever hoping
That one day
We shall, remember it.*

00 Introduction

AUTHOR'S PROLOGUE
TOPIC
METHODOLOGY
GOALS & TOOL

01 Children

DEFINITION
CHILDREN'S RIGHTS
CHILDFRIENDLY CITY
CHILD DEVELOPMENT
CHILDREN'S SCALE
CHARACTERISTICS of DEVELOPMENT STAGES
NEEDS of ALL PUBLIC SPACE USERS
NEEDS of ALL PUBLIC SPACE USERS in RELATION to ENVIRONMENT
MEDIA



02 Play

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IMPORTANCE of PLAY ENVIRONMENT
PLAY and ACCEPTABLE RISK
HISTORY of PLAY
TYPOLOGY of PLAY
TYPOLOGY of PLAYGROUNDS
VEGETATION



03 The South Town

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CONCLUSIONS



00

Introduction

Author's prologue

My inspiration...

When you walk or cycle on bike through a housing estate built in the 80's in Malmö (Sweden), or just through Copenhagen (Denmark)... you simply get a completely different feeling from the sight of children staying not only in the ,designated playground'. It's the same time, the 1st quarter of the 21st century, advanced in its technological development and the offer of all the tempting media. And yet, in constant rainy weather, the children here, wearing raincoats, slide down the 'superkilen' slide or 'solve something' in the dwarf house, which is quite atypical in shape from the formal house. It looks as if the north wind has stopped in it, but it still keeps its proportions for a small person (among other things, in a place without any fencing under the canopy of perspective trees).

*I decided to elaborate on the topic of **CHILDFRIENDLY APPROACH** for the South Town in Prague 11. Many of the situations described above led me to ask the question, where did our comrades go wrong? Or maybe they didn't? - see the chapter on the history of South Town (str.) and its unplanned prairie wilderness of vague terrain as a paradise for children's fantasy and imaginations.*

Prague's South Town, however, has by now become an example of this kind of unrequited creativity, of safe ,playhouses', of unnamable geometric shapes, where animals are not allowed, but children are.

With this work I would like to show that it is possible in other ways, that in all places children do not have to be ,in a playpen', that simply somewhere a human being and therefore a child has priority over traffic.





Japanese Octopus Slide / Superkilen Park, Copenhagen / Denmark 2020 / author ©



Tagarpstigens lekplats / Arlov, Malmö / Sweden 2020 / author ©

Topic

The thesis opens the topic of the current importance of offering creative and non-segregated leisure space for children in public spaces in a selected area of a Czech housing estate.

Specifically, the area of Jižní Město (more just South Town) is examined. This large housing estate with approximately 66,200 inhabitants was established in the 1980s on a green field, in the territory of today's Prague districts of Chodov and Háje (Prague 11). It is described as the largest housing estate in the Czech Republic.

Approximately 10 000 children (up to 15 years of age) live in this area today and have the opportunity to play mainly in fenced playgrounds (with opening hours) designed primarily for young children, even though the large public space full of greenery is a great potential for recreation and play connecting residents of all generations. After analysing the area, a number of barriers to achieving the stated objective emerge. The main proposal throughout the thesis works with these problems, highlighting the potential of the site. The work is thus an inspiration for other housing estates with similar character as the South Town.

Methodology

The master thesis consists of two main parts:

THEORETICALLY - ANALYTICAL PART

PROPOSAL PART

THEORETICALLY - ANALYTICAL PART

The theoretical part moves from the general theoretical context concerning the themes of *children, play, cities* and *playgrounds* to the actual analyses of the study area of *South Town*. The main source of inspiration for my work was the research dissertation of Ing. arch. Mirjana Petrik, Ph.D., who is a professional expert in urban planning with regard to children and their needs.

Furthermore, the following is from main foreign work '*Where do the Children Play?*' (2018) from Natalia Krysiak, from Australian Institute of Architects who studied and developed childfriendly approaches in Australia on the basis of David Lindner Research prize.

1.goal

South town friendly to CHILDREN

„With a focus on the needs of children, we need to think and plan for the city beyond playgrounds, towards a comprehensive infrastructure for children and young people“.*



2.goal

South town friendly to EVERYONE

„Children are a reliable indicator: if we can build a successful one a city for children, we will have a successful city for all people.“**



Tool

Integration of play into the public space

„People come where people are“. People are spontaneously inspired and attracted by the activity and presence of other people. A children's game, for example, can quickly attract other participants. A similar approach can be taken when working with adult activities. Children see other children playing outside from the window and rush to join them.***



Goal

The intention of the work is to fulfil *two goals* based on the *conceptual ideas*. The originators of these idea are the Czech architect *Mirjana Petrik*, the Mayor of Bogotá *Enrique Penalosa* and the Danish architect *Jan Gehl*.

The *1.goal* is to create South Town **FRIENDLY** to **CHILDREN** and thus **FRIENDLY** to **ALL** inhabitants as the *2.goal*.

The **INTEGRATION of PLAY** into the **PUBLIC SPACE** is considered in this work as the main *tool* to make the city friendly to CHILDREN, adult and disabled - friendly to ALL.

The *main goal* is to fulfill the these *two goals* and *tool* on the bases of established **CHILDFRIENDLY STRATEGY** that will lead to a conceptual and design study of a specific area typical for the South Town.

The proposal will represent an inspiring vision of the basic conceptual idea of the whole work. Increasing the creative leisure offer by integrating play into the public space, leading to an inclusive and community character in a typically problematic area of the South Town full of potentials.

- * Mirjana Petrik (C1 Petrik, 2019)
Czech architect (CTU in Prague)
Professional design of Childfriendly cities
- ** Enrique Penalosa (URL1, 2017)
Mayor of Bogota in Colombia
- *** Jan Gehl (B1 Gehl, 2012)
Danish architect

01

Children



subchapters

- DEFINITION
- CHILDREN's RIGHTS
- CHILD-FRIENDLY CITY
- CHILD DEVELOPMENT
- CHILDREN's SCALE and PROPORTIONS
- CHARACTERISTICS of DEVELOPMENT STAGES
- NEEDS of ALL PUBLIC SPACE USERS
- NEEDS of ALL PUBLIC SPACE USERS in RELATION to ENVIRONMENT
- DISABILITIES
- MEDIA



DEFINITION

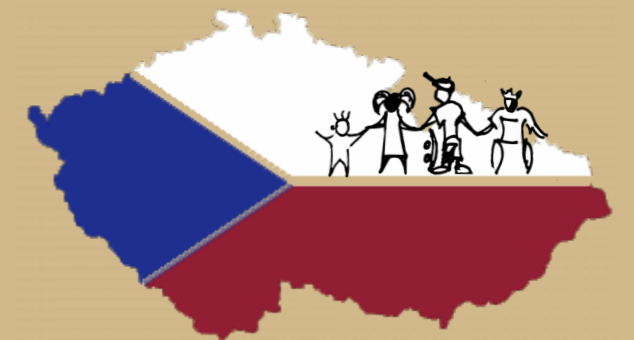
In this work, the term **CHILDREN** is generally understood to mean children and *young people up to the age of 18*.

However, in fulfilling the goal of the work, the thesis *also focuses adults* in certain topics, who are participants in the public space as an accompany of child, natural visual control, or a normal user of public space with them.

Children are an important social group. In the Czech Republic, they make up less than a fifth of the population 2, 16 from 10,5 million (URL1, 2023).

Worldwide, they represent almost one third of all urban dwellers - 2,39 from 8 billion (URL2, 2023).

<u>age</u>	<u>numbers of children</u>
0-4	567 172
5-9	571 974
10-14	553 914
15-19	467 391



CHILDREN RIGHTS

Recent research emerging from the CFCI * and GUIC ** projects shows that children and young people around the world have the same needs regardless of where they grow up. They clearly communicate to adults what they need to function adequately in urban environments.

Children have the right to:

- *Influence decisions about their city*
- *Express their opinion on the city they want*
- *Participate in family, community and social life*
- *Receive basic services such as health care and education*
- *Drink safe water and have access to proper sanitation*
- *Be protected from exploitation, violence and abuse*
- *Walk safely in the streets on their own*
- *Meet friends and play*
- *Have green spaces for plants and animals*
- *Live in an unpolluted environment*
- *Participate in cultural and social events*
- *Be an equal citizen of their city with access to every service regardless of ethnic origin, religion, income, gender or disability*

(B3 GLEESON, 2006)

* CFCI - The Child Friendly Cities Initiative (URL3, 2023)
Provides a governance framework for building child-friendly cities and communities.

** GUIC - Growing Up In Cities (URL4, 2021)
Project honors the spirit of the two original studies, Kevin Lynch's in 1972 and Louise Chawla's in the late 1990s, and seeks to develop a wider research context as it relates to young people and contemporary urban life.

CHILDFRIENDLY CITY

A **childfriendly** city is a city, town, community or any local system of governance that strives to fulfil children's rights by taking an active part in their implementation.

Building a child-friendly city is a local government-led process of implementing the **Convention on the Rights of the Child**. It is about a city or community where children's voices, needs, priorities and rights are an integral part of public policies, programmes and decisions. „A ‚childfriendly city‘ is therefore a city that is fit for all (URL5, 2018).

Czech Republic

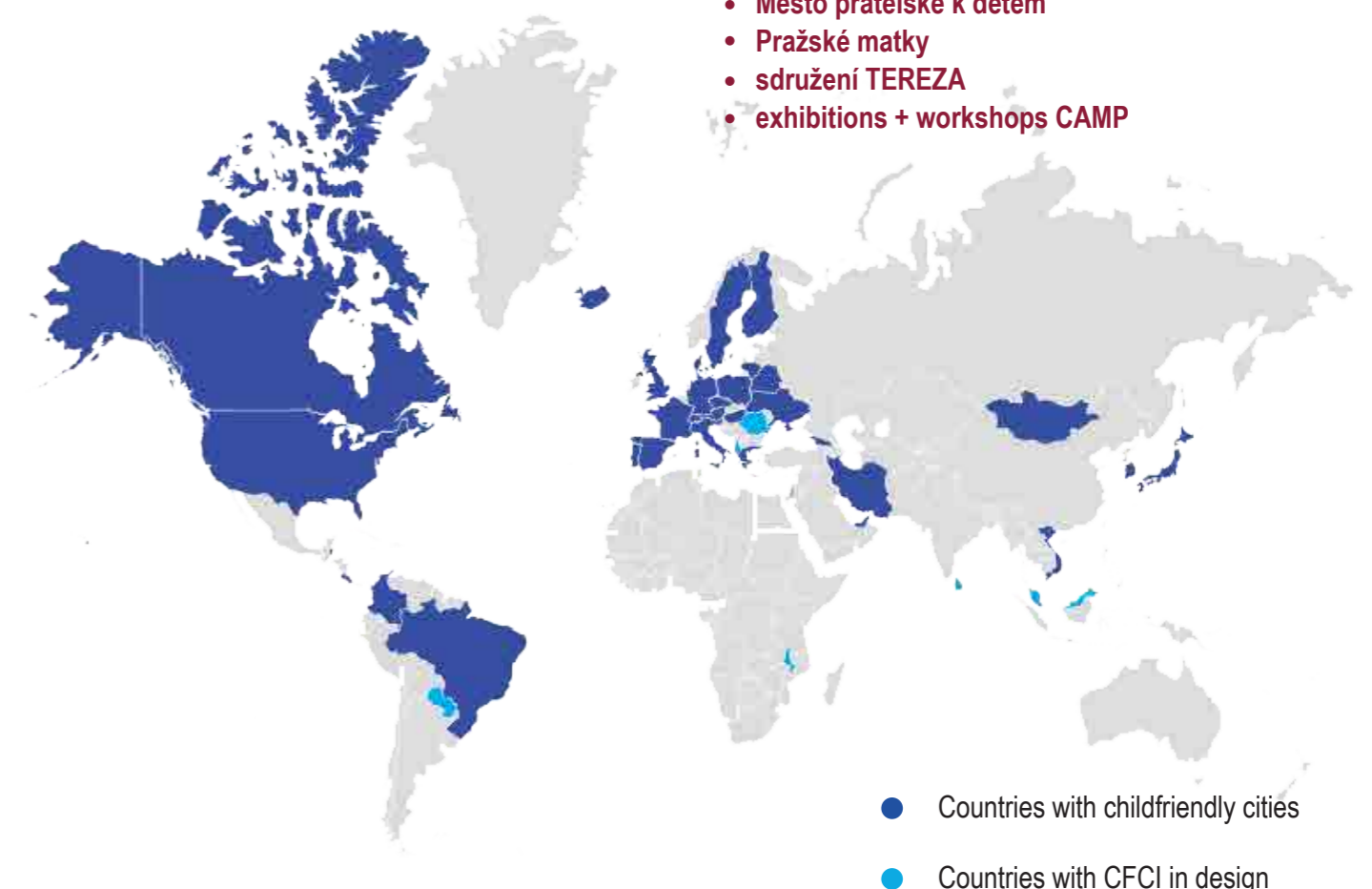
In 2020, UNICEF, in cooperation with the town of Český Krumlov, launched the Child Friendly Towns initiative in the Czech Republic. This prompted the creation of a working group working on a situation analysis and seeking to strengthen the implementation of children's rights at the local level through budgets, child participation, capacity building of local government, promotion and awareness raising and communication on children's rights (URL6, 2023).

However, there is still a lack of systematic addressing of children in urban space in the Czech Republic. Planning and designing with all aspects of child-friendly cities is lacking in most of our cities. Rather than at the governmental level, the issue is actively addressed through several non-governmental non-profit organisations working towards the realisation of children's rights in urban space. However, children's participation and involvement in the design process, in the Czech Republic, is not a common practice, nor is it legislated (C1 Petrik, 2019).

In the Czech Republic, the issue of children in the city is constantly perceived through specific formal and segregated places reserved for play and sport (playgrounds, sports grounds). The foreign approach of active countries and cities, in which urban planning and public space planning is approached comprehensively and beyond playgrounds (C1 Petrik, 2019).

Active Czech organizations (original czech name):

- **Nadace partnerství**
- **Nadace proměny Karla Komárka**
- **Město přátelské k dětem**
- **Pražské matky**
- **sdružení TEREZA**
- **exhibitions + workshops CAMP**



● Countries with childfriendly cities
● Countries with CFCI in design

World map with UNICEF Child Friendly Cities Initiatives (URL 7, 2023)

CHILD DEVELOPMENT

as a parameter for the design of play devices

In its mental and physical development, the child must be the defining starting point for creative, constructive, structural and functional considerations in planning and designing playgrounds. **Strength, speed, endurance, courage, responsiveness, skills, knowledge and behavior are the result of a process of development and acquisition.** With the mental and physical growth of children, their mental and physical range of action expands.

The child's demands on the solved and social environment and the desire for the possibilities of its functional use are becoming more and more diverse, the time-consuming visit of play facilities is decreasing.

The physical and mental level of development and age-dependent social behavior must be taken into account in all considerations of the game. Physical and mental development determines not only the time use of the game, but to a large extent also the type of game. Children in different age groups prefer very different games, but the same game often has a completely different form in different age groups. When a three-year-old child plays football or builds something, the process and outcome of the game look very different.

It turns out that motor and social behavior, as well as interests and cognitive attitudes, determine game behavior in its complexity. The characteristics of these behaviors and attitudes are subject to decisive changes during the child's development. The transitions between age groups are smooth. The age group classification in the table takes these transitions into account. In any case, there is a frequent occurrence of specific behaviors and attitudes in a certain „age spectrum“.

Of course, it doesn't make sense to plan games for the needs and behavior of six or seven age groups.

For practical purposes, it makes sense to combine individual age groups into other superior groups (B3 Baeseler, 1979).

Children's development can be divided into physical, cognitive and emotional-social development. At each of these stages, the child has certain abilities, skills and also specific needs and demands in relation to his/her environment that need to be taken into account when planning the environment (B3 Baeseler, 1979)..

Physical development



Physical development involves the growth of the body and the acquisition of physical skills. These are quantitative changes in the human body and can be measured. It is, for example, growing in height, gaining weight, building muscles and eye-hand coordination. Qualitative traits refer to progressive increases in abilities and functions that can be detected by observation.

Emotional and social development



Emotional and social development refers to building feelings and relationships with others. Self-esteem, ability to share and adapt to change are built. Communication and play with others improves and discernment of right and wrong occurs. Performance functions including emotional self-regulation develop.

Cognitive development



Cognitive development refers to the development of the mind. Thinking and memory- attention, concentration, speed of processing information, quickness. Comprehension and use of language (ability to express and understand) develop. Idea generation occurs and spatial orientation improves (C1 Petrik, 2019).



CHARACTERISTICS of DEVELOPMENT STAGES

AGE CATEGORY	PHYSICAL MOTOR SKILLS	EMOTIONAL and SOCIAL BEHAVIOR	COGNITIVE ATTITUDES
1-3 Newborn baby Infant Toddler	<ul style="list-style-type: none"> games for increased mobility development of fine motor skills 	<ul style="list-style-type: none"> the child is tied to the social framework of the family or a family with a similar structure the need to discover interests correspond to current needs and desires 	<ul style="list-style-type: none"> perception of mainly movement play role-playing games imitating adult activities
3-6 Preschooler	<ul style="list-style-type: none"> increase endurance in action impulsive behaviour rapidly changing goals high body mobility and great desire for movement lack of coordination of movement 	<ul style="list-style-type: none"> the growing tendency to imitate striving for independence a tendency towards social contacts outside the family circle not creating real communities - random gaming groups for temporary gaming activities 	<ul style="list-style-type: none"> the world is perceived in a self-centered way role-playing games (4th year) construction games begin
6-9 Schoolchild young	<ul style="list-style-type: none"> sudden maturation in the central nervous system good coordination and movement control marked mobility with the urge to play risky games 	<ul style="list-style-type: none"> develop the ability and desire to join a group groups are still poorly structured 	<ul style="list-style-type: none"> objectification of interests and status the interests of the designated entities increase children behave analytically rule-based games, music and sports games are gaining in importance
9-12 Schoolchild older	<ul style="list-style-type: none"> mastering body movements and motor skills rapid acquisition of new forms of movement 	<ul style="list-style-type: none"> besides the family, groups become the child's central social environment groups specialise in roles and orders tendency towards gender segregation 	<ul style="list-style-type: none"> the focus is not on the experience of this phenomenon, but on the questions where from, why, to what end? stability of interests shifts from diversity to preferred areas of interest the need for practical knowledge prevails > quality design
12-15 Teenager	<ul style="list-style-type: none"> motor coordination disorders > disharmonious movements unstable actions frequent change of goals at the beginning of puberty later stabilisation 	<ul style="list-style-type: none"> degradation or instability of social relationships finding like-minded friends 	<ul style="list-style-type: none"> introversion personal interests are added to objective interests social attitudes, interests and leisure activities change frequently
15-17 Adolescent	<ul style="list-style-type: none"> complete mastery of all movements 	<ul style="list-style-type: none"> great independence change in the external form of life entering professional life, separation from family ties the meaningfulness of couple relationships strong self-confidence with a desire to be of service to others 	<ul style="list-style-type: none"> intensive meeting critical examination of society, culture, special areas of interest

Body measures depending on AGE and GENDER (C1 Petrik, 2019 / B4 Baeseler, 1979/ page 23)

CHILDREN SCALE

Almost every project that a designer deals with is based in some way on human measures. Certain principles and proportions are indeed recognisable and repeatedly appear, but individual studies also repeatedly demonstrate deviations from the norm. This is even evident in the variation of people due to their age, gender or background. Worldwide comparisons show that there are differences of 15-25 cm in average body height, and the average difference between men and women is about 10 cm.

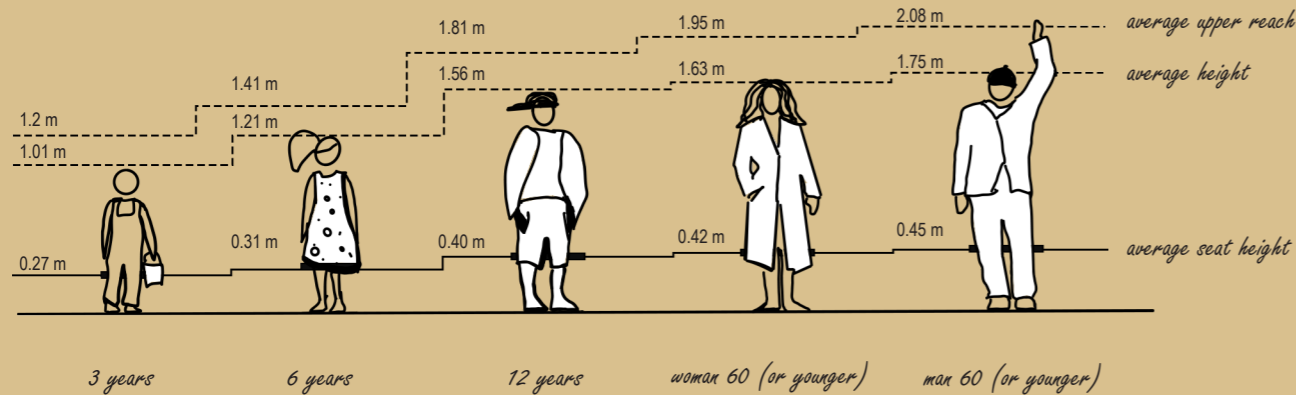
These basic measurements serve as a guide, expressing average values for human dimensions and other measurements. They should therefore be applied creatively and consciously when designing specific elements. The established measurements should be taken into account when designing furnishings, vegetation elements, play equipment, sanitary facilities and shelter. For sizing play and movement areas or designing seating, these measurements are basic standard values for reference that can be adjusted as needed to accommodate expected use.



BOYS



GIRLS



height (cm)	weight (kg)	age	height (cm)	weight (kg)
52,4 (± 2,4)	3,5 (+ 0,4)	0	51,8 (+ 2,3)	3,4 (+ 0,4)
95 (+ 5,1)	14,6 (+ 1,7)	3	94,1 (+ 4,2)	13,95 (+ 1,6)
116 (+ 4,9)	20,6 (+ 2)	6	116 (+ 4,9)	20,8 (+ 2,3)
133 (+ 6)	28,3 (+ 3)	9	132 (+ 6)	28,2 (+ 3,2)
148 (+ 6,8)	38,5 (+ 5)	12	150 (+ 7,3)	41,5 (+ 6,4)
172 (+ 7,5)	60,9 (+ 7,5)	16	162 (+ 6)	54,8 (+ 7,2)

^ Human scale (Zimmermann, 2015)

Detailed Bddy measures depending on AGE and GENDER (B4 BAESELER, 1979/ str. 22) >>

NEEDS of ALL PUBLIC SPACE USERS in RELATION to ENVIRONMENT

AGE CATEGORY

PHYSICAL ELEMENTS of the ENVIRONMENT

NATURAL ENVIRONMENT TERRAIN SPATIAL ELEMENTS

NATURAL and STRUCTURAL MATERIALS


MOBILIAR

SPECIAL ELEMENTS - IDENTIFICATION with PLACE

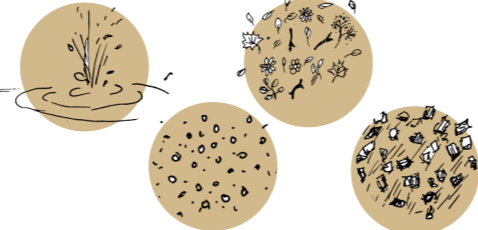
0-2
**Newborn baby
Infant
Toddler**




- Space for free and safe movement of the little ones
- Lawn, trees, water feature




- Diverse materials and natural elements sand, water, stones, wood, mud...



- Seats, tables




- Integration of elements for different age groups of children
- Facilities for parents, services, café or shop within walking distance, community centre, clubhouse
- Elements to create shade in the summer months (tarpaulins, pergolas,...)



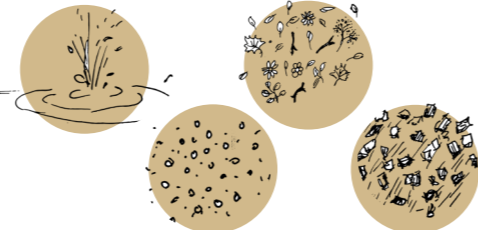
3-6
Preschooler





- Space for free and safe movement of children, sufficiently large paved area:
 - moving on a bike, playing with a ball, drawing with chalk, etc.
- slope or hill:
 - running, barrel rolling, sliding, sliding in winter
- Lawn, trees, water feature, natural vegetation



- Variety of materials, free building materials - free natural elements stones, pebbles, sticks, leaves,...



- Seats, tables, furnishings allowing variable use, inspiring play


- For children, elements stimulating play on something, elements or trees suitable for climbing, elements developing motor skills, logical thinking and imagination of the child, learning through play
- Little houses or other „our own place“
- For adults, café or shop within walking distance, community centre, clubhouse
- Elements to create shade in the summer months (tarpaulins, pergolas,...)



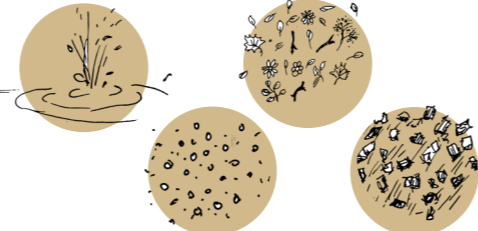
7-12
Schoolchild older



- Space for free and safe movement of children, sufficiently large paved area:
 - moving on a bike, playing with a ball, drawing with chalk, etc.
- slope or hill:
 - running, barrel rolling, sliding, sliding in winter
- Lawn, trees, water feature, natural vegetation features




- Variety of materials, free building materials, free natural elements - stones, pebbles, sticks, leaves,...



- Furnishings allowing variable use, inspiring play




- Elements stimulating play on something, elements or trees suitable for climbing, elements developing motor skills, logical thinking and imagination of the child, learning through play
- Interactive elements in public spaces. space (such as surface mosaics, street art, artworks,...)
- Roofing in case of bad weather, elements to create shade in the summer months (tarpaulins, pergolas,...)
- Community Centre as „our own little place“
- Possibility to walk the dog



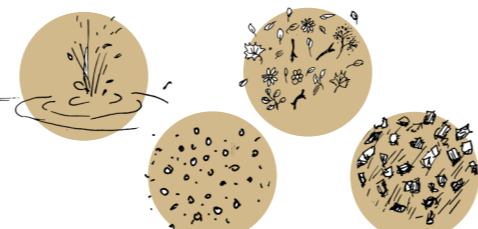
13-16
Teenager




- Paved and grassy living areas allowing variable use (games, picnics, etc.)
- Water feature, trees, close to nature vegetation elements




- Materials for variable use



- Mobility allowing variable use




- Places to meet peers, express creativity, freedom
- Elements aimed at use by teenagers
- Interactive elements in public spaces. space (such as surface mosaics, street art, artworks,...)
- Rental of sports and other equipment for active leisure
- Offer of services, cultural events
- Roofing in case of bad weather, elements to create shade in the summer months (tarpaulins, pergolas,...)
- Possibility to walk the dog



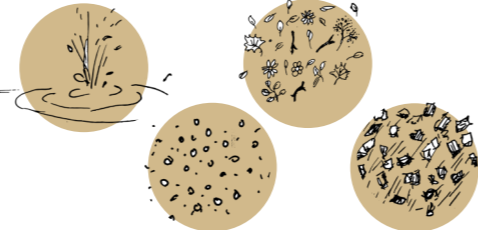
17-100
Adolescent




- Paved and grassy living areas allowing variable use (games, picnics, etc.)
- Water feature, trees, close to nature vegetation elements



- Functional and aesthetic materials
- Vegetation elements, art in public space



- Seats, tables, lighting



- Services and other destinations within easy reach
- Cultural and small local events
- Rental of sports and other equipment for active leisure
- Space for personification by local inhabitants
- Possibility to walk the dog



(inspired by C1 Petrik, 2019)

NEEDS of ALL PUBLIC SPACE USERS

Preschool children (0-6)

They use public spaces near their place of residence under the supervision of their parents, relatives or other guardians.

In order for these users to use the space, it is important to ensure safety, which is generally best achieved by ensuring direct visual contact between the home and the play area.



Elementary school children (7-15)

As they already cover a certain distance when going to school, they are able to overcome this distance even when visiting public spaces, which provide a function of short-term recreation.

Equipment this public place should offer stimuli for the playfulness and imagination of children of this age.



Youth and teenagers (15-18)

The specific demands of this group depend on their interests.

However, they are able to use public spaces at a greater distance from their home, which fulfill these interests.

They can be perceived as a problem group of public space.



Adults and workers

Due to the use of space, they have few restrictions, but limited leisure time is the problem.

Therefore, spaces within walking distance of their home and workplace are important to them.



Parents with young children

Because they use the space together with children, they use spaces that are attractive to children.

Therefore, it is important to adapt the premises for young children of preschool age to the needs of older supervision.

Basically, it is the addition of seating in the shade and in the sun, the addition of sanitary facilities with access for drinking water, ensuring accessibility for prams and the overall safety of the space.



Pensioners and senior citizens

This group has the greatest amount of time, but also often with some limitations in the use of public space and its physical stimuli.

It is important to provide senior citizens with quiet places to observe the surrounding events, as well as those that offer them an attractive and at the same time safe opportunity for active movement, close to their home.



Men and women

From a gender perspective, women generally use public space more often than men - on their way to work, shop, but also to accompany their children on their way to or from school.

They can be a kind of qualifier of aesthetic, hygienic and safety quality of a public space, as they like clean and well-groomed places of high visual value with a feeling of personal safety.



Migrants and minority ethnic groups

Depending on other indigenous customs and the worship of different traditions, the demands of these groups for the use of public spaces may differ from ours.

A common feature is often more limited living conditions, so public spaces can become a significant substitute for their lack of living space in their homes.



Tourists and visitors

One of the most demanding groups in terms of the required attractiveness of the space equipment and its designation for orientation within a wider area.

People with disabilities

- Disabled with a move handicap
- Visual impairment

People with these disabilities are directly concerned with ensuring the safety and accessibility of any type of public space.

The application of suitable road surfaces, their elevations and slopes is based on this.

Design of suitable architectural proportions and material properties of technical and vegetation elements with regard to health restrictions. By ensuring direct visual contact between home and place to play.



MEDIA

Digital media and the amount of time children spend on it, play a big part in the way children live today.



As well as their own phones, they also spend time on tablets, computers, TVs and listening to music. Contact with the media is increasing, and with it the role of the importance of an attractive leisure public outdoor offer in space.



We think you spend too much time there 48,4%

You are neglecting your duties because of it 18,6%



You don not pay attention to what we tell you

You do not listen to us 8,1%

We do not like that you talk to us less 9.9 %

It costs a lot of money! 0,6%

I am afraid of falling into addiction 2,5%

It is not healthy 5.6%

You prefer to be at home than youat 6.2%



MEDIA

**„Kids spend hours a day on social media.
Most parents don't address it.“**

This is the title of an article that presents the results of a survey on **NETOLISM** and its impact on Czech children and their parents. **Netolism is a morbid addiction to so-called VIRTUAL DRUGS**, such as **social networks, computer games** and other **Internet services** that try to attract the attention of the child in any way they can. The term also includes the actual use of devices such as **mobile phones, tablets, television** and **other media** as a means of communication. **Research has shown that half of Czech children spend three or more hours a day in the online world, and one fifth of children spend five or more hours a day** (URL8, 2022).

NEGATIVE IMPACTS of NETOLISM

ON CHILD

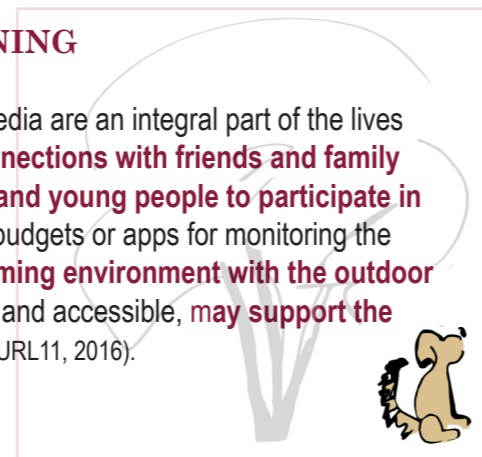
- Neglecting hobbies, sporting activities and friendships (URL8, 2022)
- Loss of control over time (URL10, 2018)
- Effect on the physical condition of the individual
 - sleep disorders
 - headaches and back pain
 - non-compliance with the eating and drinking regime (URL9, 2020)
- Changes in the psychological state of the individual
 - sudden mood swings
 - significant emotional dips
 - persistent psychological instability
 - feeling of emptiness (URL10, 2018)
 - escape from personal problems (URL10, 2018)

ON PARENTS

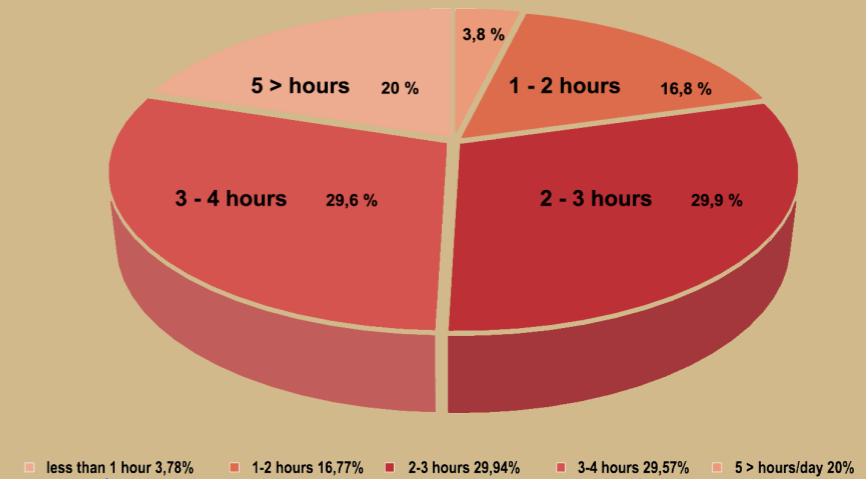
- Parents are afraid
- Arguments with children (URL8, 2022)
- Checking child's social media activity
 - sudden mood swings
 - significant emotional dips
 - persistent psychological instability (URL10, 2018)
- Control and quarrels with parents is a separate part, which further affects the child's psyche

POTENTIALS of MEDIAS in CHILDFRIENDLY PLANNING

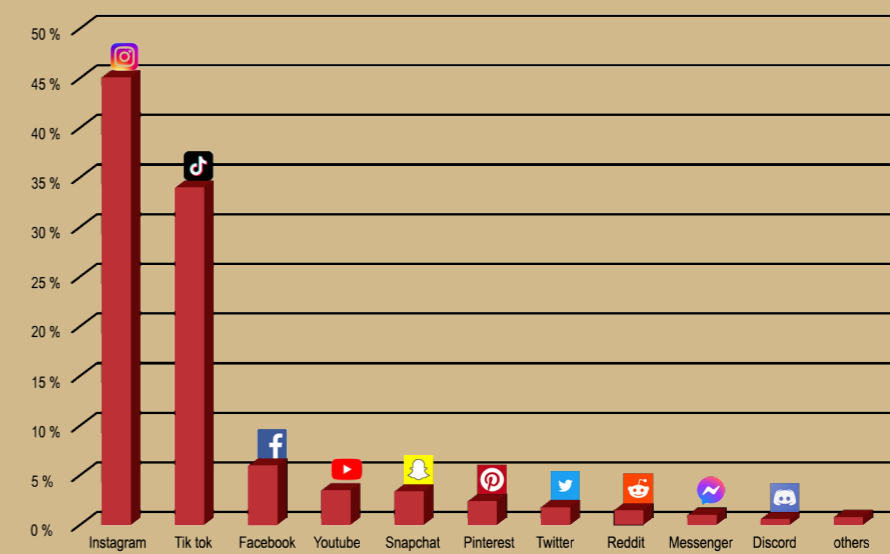
However, new technologies and digital communication through social media are an integral part of the lives of today's children. In a positive way, **new technologies can mediate connections with friends and family members**. They have the **potential to become a good tool for children and young people to participate in the planning** and use of the city, with examples such as participatory city budgets or apps for monitoring the state of urban spaces. They have the **potential to connect the virtual gaming environment with the outdoor environment**. The available technological tools and devices, when usable and accessible, **may support the development of children's skills when they practice any type of play** (URL11, 2016).



TIME SPENT ONLINE OVER SOCIAL NETWORKS

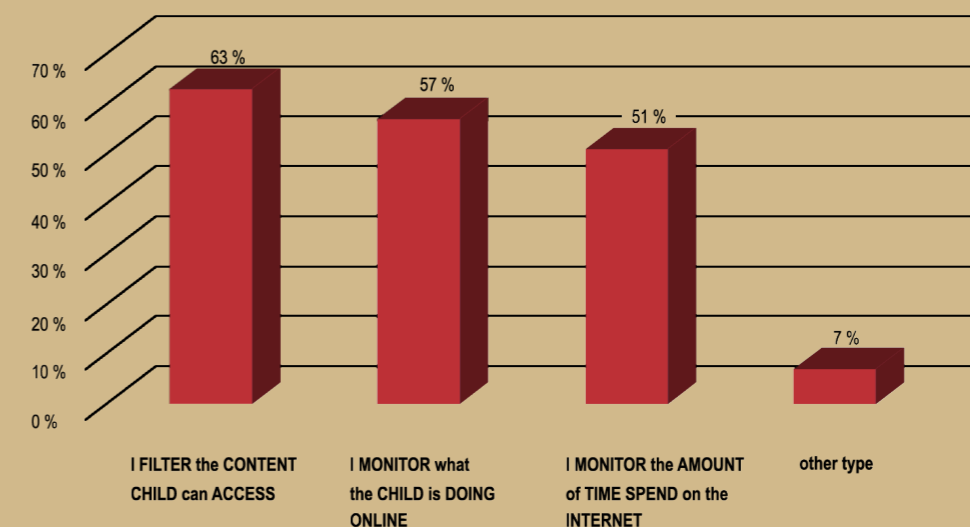


THE SOCIAL NETWORKS MOST FREQUENTLY USED BY CHILDREN



The second most popular social network, Tik stream, is primary for 34% of children. It is only surpassed by Instagram, the social network for sharing photos and videos, which is the winner for 45% of children. Facebook, on the other hand, is a platform for 'boomers' in the eyes of teens, which refers to adults born before 1965. Facebook is the primary network for only 6% of children.

PARENTAL CONTROL



(URL1, 2022)

Resources

INTERNET

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URL2/ How many children are there in the world? [online]. UNICEF, 2023 [cit. 2023-04-23]. Dostupné z: <https://data.unicef.org/how-many/how-many-children-are-in-the-world/>

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URL 8/ Děti tráví hodiny denně na sociálních sítích. Většina rodičů to neřeší [online]. Praha: Seznam.cz, 2022 [cit. 2023-05-23]. Dostupné z: https://www.seznamzpravy.cz/clanek/fakta-deti-travi-hodiny-denne-na-socialnich-sitich-vetsina-rodicu-to-neresi-213279#dop_ab_variant=0&dop_source_zone_name=zpravy.sznhp.box&source=hp&seq_no=3&utm_campaign=abtest198_novy_panel_sluzeb_varB&utm_medium=z-boxiku&utm_source=www.seznam.cz

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URL10/ NETOLISMUS [online]. Karlovy Vary: INTERNETEM BEZPEČNĚ, 2018 [cit. 2023-05-23]. Dostupné z: <https://www.internetembezpecne.cz/internetem-bezpecne/dobre-vedet/netolismus/>

URL11/ Euro Cities, 2016. Oslo's Traffic Agent app. [pdf] Available at: https://use.metropolis.org/system/images/1666/original/CitiesInAction_TrafficAgent_Oslo_Jul16_%281%29.pdf [cit:2023-05-15].

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02

Play



„The laws and customs of the ordinary world do not apply in the area of play“ (B1 Huizinga, 2000)



subchapters

- DEFINITION
- IMPORTANCE of PLAY ENVIRONMENT
- PLAY and ACCEPTABLE RISK
- HISTORY of PLAY
- TYPOLOGY od PLAY



DEFINITION

Defining the term of PLAY has been quite difficult for scientific specialists dealing with this concept. It encompasses a wide range of play concepts such as *children's games, adult and animal games, sports games*, but also *theatre games, playing a musical instrument and gambling* (Dictionary of Written Czech, Filipec, 1997).

Unlike English, Czech does not distinguish other meanings for this term.

English uses two terms:

PLAY and GAME

PLAY

is a game without rules - a game of 'something'

GAME

a game with rules (e.g. a game of sports)

(B1 Huizinga, 2000)

FREE PLAY

That is the term of play whose course is determined by the child himself and *the game is not influenced, controlled, organized.*

It allows the child to develop his imagination, curiosity and enthusiasm for discovery.

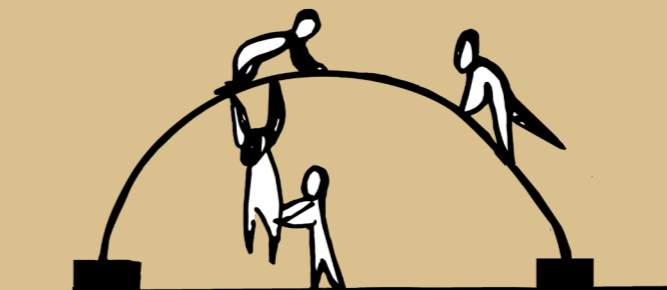
In contemporary literature, the term is used as *opposed to play*, which is *directed, organised, predetermined environment, an adult present, or by a play aid.*

Lack of free play can seriously impair an individual's development. 74

(C1 Petrik, 2019)

Huizinga (2000) defines play as the child's spontaneous expression:

„...free action which is meant „just so“ and stands outside ordinary life, but which may nevertheless interest the player, to which no material interest is further attached and by which no benefit is achieved, which takes place at a specially appointed time and in a specially appointed space, which proceeds properly according to certain rules, and which brings into existence social groups who like to surround themselves with mystery or who escape from ordinary life by disguising themselves as others.“



(B1 Huizinga, 2000)

IMPORTANCE of PLAY ENVIRONMENT

The environment in which the game takes place has a major impact on the game. It can predetermine and influence play, such as formal playgrounds - such as those found in the study area of the South City housing estate, for example, i.e. fenced sets of typified play elements, predetermining activities - slide, climb - and how children are to play. However, no matter what style the environment is rendered and defined, children will always find a way to interact with their environment according to their own taste. Thus, the environment can only encourage play, offering different stimuli and challenges, where children will, by their own choice, use elements that were not designed for play in the first place.

How the child perceives the space, how the environment affects them and what they think of when they are in it will directly influence the activities they do in it. Environments that encourage spontaneous interaction and activities encourage free play and stimulate creativity much more than elements or environments with a predetermined function.

PLAY and ACCEPTABLE RISK

All the environment around us contains a certain amount of risk. In relation to children's play, it refers to a positive approach to risk exposure in play (URL2, 2018).

Children have a natural desire to take risks because they know that this is the only way they will move forward in their development. Risk-taking is a fundamental prerequisite for learning. From early childhood, when we first stand on our feet and decide to take that first step, we take risks. In relation to children and children's play, this risk must be considered not only acceptable but even desirable. Children need to overcome new challenges and obstacles. Children are very good at estimating their abilities; rather, it is adults who interfere with that natural quality and transfer their anxieties to them.

Acceptable risk can cause things like bumps and bruises, even a broken arm, but its benefits outweigh that potential harm, so risk is tolerated.

This is also addressed in the standards applicable to the design of play equipment (CS 1171).

The standard considers an unacceptable risk to be a situation where permanent consequences or harm may result, e.g. irreparable eye injury, loss of fingers, injury resulting in permanent disability. However, such a broken limb is considered an acceptable risk and a natural part of childhood (C1 Petrik, 2019).

HISTORY of PLAY

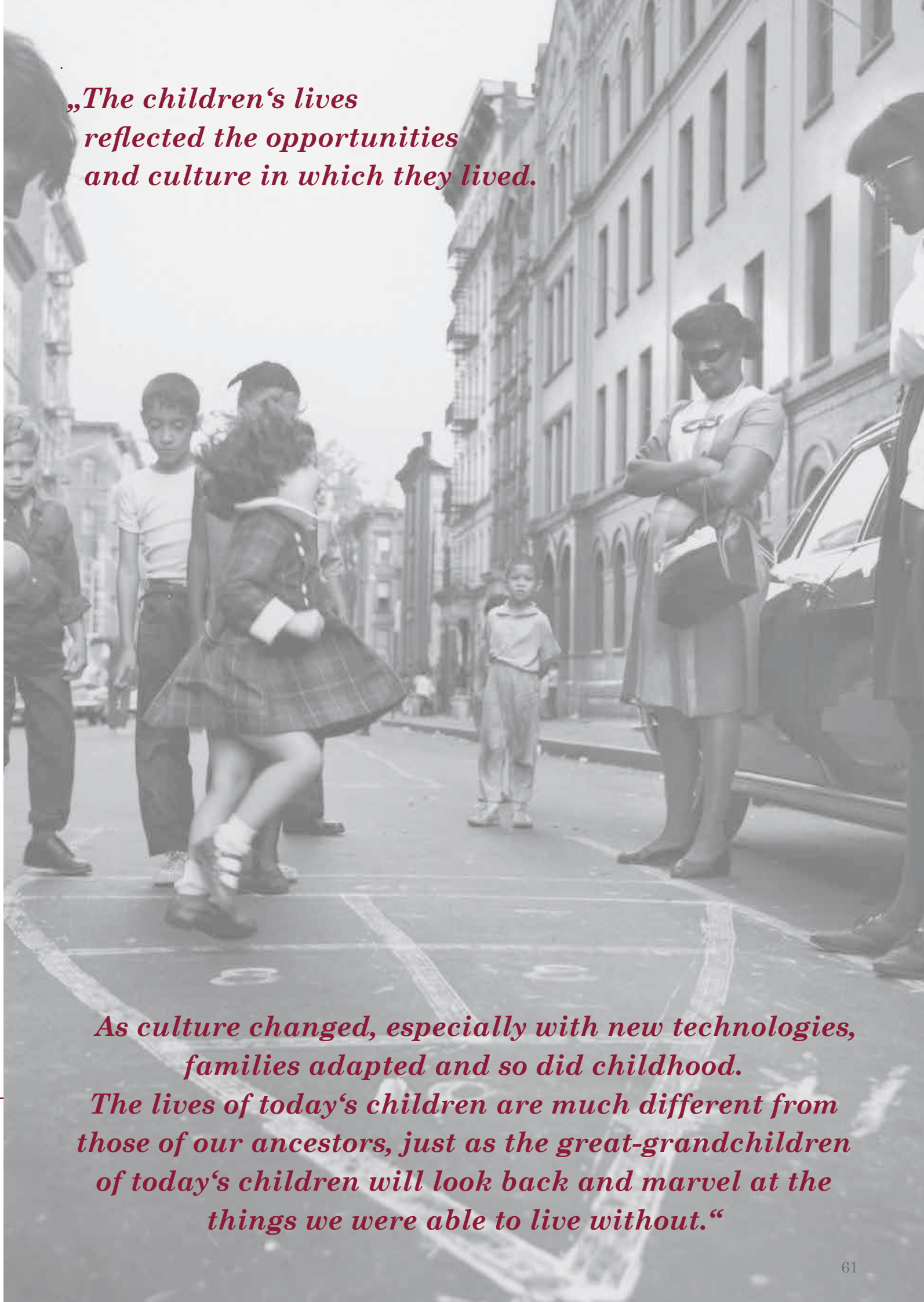
Leisure time has been a part of everyone's life across all historical eras, but its share has varied over the course of historical development. This depended primarily on the nature of work, which until the Industrial Revolution was more or less irregular and adapted to agriculture - that is, dependent on nature, the season and the weather. The child population was part of this working regime for a long time.

However, active outdoor exercise, games and toys have accompanied children from a very early age, and their forms have evolved and improved over time. The types of games and toys varied depending on the location and social class of the child. By the Middle Ages, children were quite used to making their own playthings, and their toys were then divided between girls and boys - 'girl to the stove, boy to the fight'.

By the early 18th century, the child population is associated with excessive mortality, and it is only after this time that the deeper emotional role of the family begins to emerge, which is increasingly strong today.

From the beginning of evolution, children can be said to have been in a close context with nature, which was the main environment for their activities, whether they took the form of physical, recreational or educational activities. Nowadays, however, leisure activities are filled with physical 'smart technologies' that take children and adults away from nature and not to mention when the weather is not so good.

P1 - A view of children playing hopscotch in the street in Spanish Harlem, New York City, circa 1965. A man tosses a tennis ball in the foreground as an African-American woman and a Latina woman look on.



„The children's lives reflected the opportunities and culture in which they lived.

As culture changed, especially with new technologies, families adapted and so did childhood. The lives of today's children are much different from those of our ancestors, just as the great-grandchildren of today's children will look back and marvel at the things we were able to live without.“

How did the children play?

free time, play and toys across historical eras to the present day...

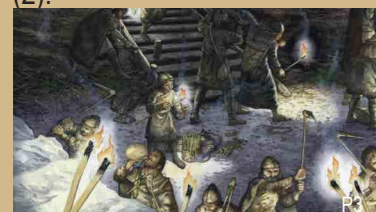


21. století je od počátku dynamické ve svém zdokonalování technologií, a to jak na úrovni mediálních prostředků, tak výrobních materiálů i designu v odvětví stavitelství a architektury.



PREHISTORY

Even in the prehistoric period, the socialization of children was very rapid, and they had to fend for themselves at the age of 11 (1). Archaeological findings show that children between the ages of 3 and 6 were making clay vessels, and that prehistoric youths were already working in harsh environments, including mines (2).



By this time, children were playing with objects of various forms that they had made themselves at home in groups from natural materials: wood, clay, bones, and stones. However, it is impossible to say exactly to what extent these objects had practical, cultic or play significance (2).



ANTIQUITY

Ancient historical sources depict the life of the society of that time, including that of children, through sculpture and art, or through tombstones. Toys were popular with Greek and Roman children at this time and took many forms, with children making them themselves or having them made to measure.



They are often depicted playing ball games or children on swings, a leisure activity similar to today. However, children were involved in the work



MEDIEVAL

Středověk byl hrou naplněn i přes jeho stinné strany války a morů. Jednalo se o hry lidové s pohanskými prvky oproštěných od sakrálních významů. Děti měly pro hru už také mnoho druhů hraček, které si samy vyrobily: kuličky, kostky, meče, míče, panenky z různých materiálů: kus vosku, látky, zvířecí kosti, dřevo.

Nebo jim je vyrobili řemeslníci: chrastítka, loutky, káča ad. Nastaly první rozdíly ve hře a hračkách v závislosti na lokalitě a společenské třídě.

Ve vyšších vrstvách se hrály deskové hry, jako dáma a šachy. Pochází odsud i počátky fotbalu, bowlingu, badmintonu, tenisu, baseballu či golfu.

V létě se všichni koupaly v řekách a jezerech, v zimě bruslili. Relativně bezstarostný život dětí v sedmi letech skončil a od dvanácti let už většinou pracovaly.

Na obraze Dětské hry od Pietra Brughela z 16. století je znázorněno až patnáct typů her v podobě pohybových aktivit, jako např. hra na svatbu, na rytířský turnaj, na slepou bábu a další.

17 -19- century

Průmyslová revoluce přináší vlnu inovací a s nimi i strojovou výrobu hraček. Ty zobrazují až do neuvěřitelných podrobností tehdejší měšťanský svět i s jeho morálkou a rozdělením životních rolí. K výchově k mateřství sloužily pro dívky početné kolekce panenek, miniaturní funkční sporáky. Chlapci byli v tehdejším industriálním světě připravováni pomocí funkčních miniaturních parních strojů, autíček i vláčeků. (C)



Všeobecné změny společnosti ovlivňují i životní prostor dětí, kde oproti venkovu, stále dostupným možnostmi plnohodnotné hry, v industrializovaných městech tyto možnosti klesají.

Postupně v rostoucích státních městech potřeba dětské hry ve veřejném prostoru roste a v 19. století začínají v Německu vznikat první veřejná hřiště pro děti. (K)

1. half 20. century

Československo přijalo zákon o zákazu dětské práce pro děti mladší 12 let v roce 1919 (B).

Začínají se rozšiřovat mimoškolní organizace a kroužky, jelikož měli děti z 19. století mnohem více povinností než ty dnešní, ať se jednalo o děti bohatého šlechtice nebo chudého sedláka. První organizace vznikaly pro děti, kterým rodiče nemohly poskytnout rozumné trávení volného času a po té organizace, zaměřené na reprezentaci politického hnutí.



Důkazem, že existence dětského světa s právem na hraní se po první světové válce začala uznávat všeobecně, je kolekce dřevěných lidových hraček, které se od začátku dvacátých let vyráběly v podkrkonošských Hořicích. (C)

2. half 20. century

Během 2. poloviny 20. století už vznikají první televize, telefony i internet, ale stále je toto období dětství spojené se spoustou času stráveného venku, bez mapy, omezenou hygienou, a lepšími sociálními vztahy. (P) V 60. letech se zvyšuje přísun obyvatel do měst a s tím i nové bytové zástavby rozšiřuje výstavba hřišť i výsadby zeleně. Typy her, které děti venku hrály je celá řada: Honzo vstávej, skákání gummy, tleskácké hry, krvavé koleno, cukr káva limonáda a další (O).



V tomto období však také v angloamerické kultuře dochází k významnému úbytku tzv. volné hry, jenž je iniciována zájmem samotného dítěte, nikoli řízena a organizována představami rodiče/vychovatel. Tento trend projevuje také v mateřských školách, kde namísto volné hry dítěte jsou aktivity externě řízeny autoritami za účelem zvýšení „akademičnosti“. (W)



1

physical play

MOTOR

Activities that require full-body movement, or that load large muscle groups leading to improve gross motor skills. These may also be activities that require hand-eye coordination.

- climbing, running, throwing/catching, lifting, carrying heavy loads, crawling, swinging an item such as a bat or branch, jumping, kicking



FINE MOTOR

Activities in which small muscles (fingers), hand and eye movements are active. Activities that help develop finer motor skills that affect the child's manipulative skills.

- picking up or manipulating small objects in the environment using a spoon or stick to stir water or mud, using a small shovel to scoop sand, picking up leaves



VESTIBULAR

Activities that improve or test the child's sense of balance and/or strengthen their relationship to the earth. Usually involve movement of the head or quick movements in multiple directions.

- balancing, rocking in hammock, riding a swing, doing somersaults or cartwheels, walking on their hands, skipping, spinning, sliding, rolling, hanging upside down



ROUGH & TUMBLE

It is a playful physical contact. Engaging in a playful or pretend fight/match „between friends who remain friends“ [2]

- play fighting, wrestling, tussling, tumbling, tickling, "sword" fighting



2

exploratory play

SENSORY

Playful, and often sensory exploration of an object or environment. Interactions in which child receive sensory information about the object or environment on which his or her attention is focused, e.g., rubbing a part of a plant to feel its fuzziness or roughness and smell it.

- splashing feet through flowing water, searching the ground for bugs or flowers, running mud through their fingers, petting an animal



ACTIVE

When child pays attention to the outcome of an action, movement or interaction through playful active manipulation of an object or environment without a clear goal. May have the intention to fill a bucket with sand without constructing anything concrete from it.

- shoveling sand into a pail, digging a hole in a pile of gravel, floating a boat down a stream, collecting rocks and leaves, driving a toy truck through mud



CONSTRUCTIVE

In constructive play, the child manipulates objects in the environment or the environment itself to physically build or construct something or to thoughtfully destroy/disassemble something. These are situations where the child is playing with any kind of puzzle.

- using rocks to build a dam in a stream, using loose parts to build a fort, piling up sticks to build a "fire", moving pylons to create a racetrack





3

imaginative play

SYMBOLIC

In symbolic play, an object, activity, or idea in the environment is used as a symbol for something else. This pretense is embedded in the other two imaginative subtypes but should be used when there is no observable evidence of socio-dramatic or fantasy elements to the play.

- using a piece of wood to symbolize a person, or a piece of string to symbolize a wedding ring, or a banana to play the role of a phone



SOCIO-DRAMATIC

Where pretend play involves playing or rehearsing typical social, domestic, or interpersonal roles that they may experience as adults.

- pretending to be parents, organizing, or cooking a meal, pretending to have a family fight



FANTASY

Child's imaginative play involves acting out situations that are not personal or domestic. Play is pretending something that is unlikely to occur in real life.

- playing characters from Harry Potter, pretending to be a princess, a wizard, an animal...



4

play with rules

ORGANIC

Two or more kids are agreeing to play or challenge each other in a certain way, where they develop, negotiate and even change the rules as they go.

- developing a game where superheroes chase villains, or racing toy cars down a plank, or seeing who can climb highest in a tree



CONVENTIONAL vs. INFORMAL

Two or more kids playing games that have common, universal or well-known rules that the players understand before commencing.

- soccer, baseball, tag, capture the flag, hide and seek





5

bio play

PLANTS

Child observes, discusses, or interacts with a living plant.

- picking a fruit, closely examining a leaf or flower, exploring or commenting on some characteristic of the vegetation



P32

WILDLIFE

When a child is keenly observing or interacting with wildlife in the same environment including animals, birds, and bugs (that are not a domestic pets).

- catching small animals or bugs such as fireflies, moths, frogs, or crawdads; closely observing a bird or a turtle; poking a stick in the water to watch frog eggs wobble; looking under a log to see bugs



P33

CARE

Child acts in a way that demonstrates care or stewardship of the environment, or an appreciation of nature.

- watering a plant or planting an acorn, building a home for a turtle, rescuing a caterpillar that is crawling along a pathway, picking up a piece of litter and placing it in the recycling bin



P34



6

expressive play

PERFORMANCE

Deliberately playing for others in any way

- singing, drama/acting, dancing, playing music, juggling, or hamming it up for the entertainment of others



P35

ARTISTIC

Children manipulate with the environment specifically for an artistic, creative, or aesthetic outcome. Mark-making and drawing.

- arranging leaves in a pattern, drawing spirals or pictures in the dirt or sand, painting or drawing pictures, making a pattern in the mud with footprints, or a sculpture out of sand



P36

LANGUAGE

Child's activities of playful testing of sound, words and/or language.

- making up rhymes or poems, singing to themselves or with others, chanting, making up/telling jokes or stories



P37

CONVERSATION

Activities where the primary playful interaction is social conversation with other children or adults without involve any role play.

- two or more children sitting around a stump circle talking about a mutually attended event



TYPOLOGY of PLAY (C2, 2020)

P38



7

restorative play

RESTING

Activities where a child is clearly taking a mental and/or break or rest.

- sitting, laying down, daydreaming, talking quietly to themselves (without another play activity), even quietly staring into space.



P39

RETREAT

When child has removed themselves to a small, controlled space, where has ability to look out and watch others.

- crawling into or watching out from a fully or semi-private fort, den or other enclosed space.



P40

READING

Activity as reading or writing for pleasure or listening to others or music.

- reading a book, listening to another person telling a story or reading to them, or listening to music.



P41

ONLOOKING

The child deliberately retreats from play in the environment for a period of observation, not interaction.

- sits or stands aside while clearly observing others' play or interaction nearby.



P42



8

digital play

DEVICE

Child is playing with or on a digital device with no interaction with the real world/physical environment.

- play games on a phone, tablet, or portable game device, listening to music through a device.

(restorative - resting or restorative-reading: as in sitting on a park bench playing a game on a phone or laying on a blanket listening to music).



P43

AUGMENTED

Using a digital device to mediate or augment their interaction with the physical world.

- playing Pokémon Go or other augmented reality game, using their phone to read information transmitted through QR codes in the environment. blanket listening to music).



P44

EMBEDDED

When the child is interacting with digital prompts or devices embedded in the real world/physical environment without a personal digital device.

- playing a digital instrument embedded in the environment, activating digital sensors in the environment to hear sounds or see light displays, playing with an interactive digital screen in the environment.



P45

STANDART AUTHORIAL NATURE ADVENTURE SPORT'S THEMED INCLUSIVE SCHOOL'S DESTINATION



- typical mass-produced game elements
- firmly connected to the ground
- separated from the surroundings (fence, wall...)
- completely safe
- no play risk
- predominance of artificial materials
- mostly lack of greenery
- lack of shade



- custom-made playground
- original author game elements represent the works of artists of a certain era
- expensive and strenuous production of game elements
- aesthetic quality
- compliance with the environment
- a source of creativity and inspiration not



- natural elements as the main forms: tree trunks, stones, sand, water
- use of vegetation elements, terrain modeling, natural materials, free materials
- elements function - hiding places, climbing frames, viewpoints,
- development of creativity, concentration,
- popular with younger children
- elements according to standards certifiable



- demarcated area (fence, wall) the development of free, unfettered, adventure play
 - creating your own game environment using tools
 - all under the supervision of a trained and paid SUPERVISOR
 - elements do not comply with applicable standards and are not certifiable popular for older
- ROBINSON'S playground**



- develops the physical activity of a specialized sports discipline (running, ball game)
 - special equipment - elements + artificial surfaces - according to valid standards
 - often visiting hours + opening hours
- Parkour
Work-out
Multi-sports
Skate-park
Pump track
Rope park**



- the playground is thematically rendered according to the theme - the strong character of the place, history, story, demands of the place
- elements made by the author or by a specialized company

**TRAFFIC playground
WATER playground**



- for people of all ages
- for people of different abilities (mental and physical)
- highly secure elements
- elements strictly respect standards and proportions
- barrier-free
- offers a wide selection of activities
- natural forms often excluded
- develop acceptance, patience, perseverance, kindness, and respect



- designated areas on school grounds
- they can have the character of paved surfaces + natural/exercise elements
- the potential for interest areas into public space and opening to the public after school



- for people of all ages
- for people of different abilities (mental and physical)
- highly secure elements
- elements strictly respect standards and proportions
- barrier-free
- offers a wide selection of activities
- natural forms often excluded
- develop acceptance, patience, perseverance, kindness, and respect



Bohnice, Prague



Kmentová, Zoubek, Prague, 1961



MŠ, Mladá Boleslav



The St. Kilda Adventure p., Australia



South Town I, Prague



Vyšehrad, Prague



Kmentová, Zoubek, Praha, 1961



MŠ, Ostrava-Poruba



Alaska's Destination Playground, Alaska



Kurt Gebauer, Ostrava, 1985



Kurt Gebauer, Ostrava, 1985



Hackney Marsh, London



Hackney Marsh, London



Skate park, Gutovka, Prague



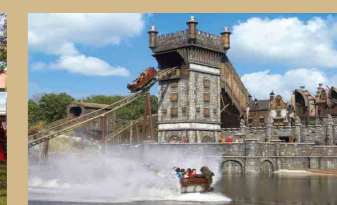
Water playground, Vienna



Kurt Gebauer, Ostrava, 1985



MŠ, South Town I, Prague



Efteling, Netherlands



South Town I, Prague



Sendler, Babka, Gergela, Prague, 2012



Rehwaldt architects, Erfurt, Germany, 2016



Robinson playground, Vienna



Work out, South Town I, Prague



Traffic playground, Ostrava-Poruba



Sendler, Babka, Gergela, Praha, 2012



Loma, Sweden



Tivoli Park, Copenhagen, Denmark



Karl-Marx-Hof, Vienna, Austria



Rehwaldt architects, Erfurt, Germany, 2016



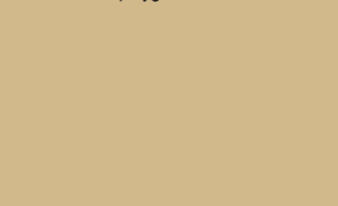
Rehwaldt architects, Erfurt, Germany, 2016



Robinson playground, Vienna



Work out, South Town I, Prague



Traffic playground, Ostrava-Poruba



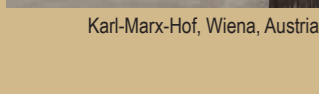
Sendler, Babka, Gergela, Praha, 2012



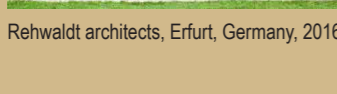
Loma, Sweden



Tivoli Park, Copenhagen, Denmark



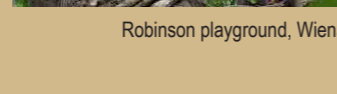
Karl-Marx-Hof, Vienna, Austria



Rehwaldt architects, Erfurt, Germany, 2016



Rehwaldt architects, Erfurt, Germany, 2016



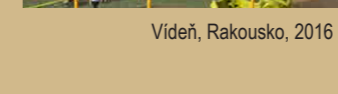
Robinson playground, Vienna



Work out, South Town I, Prague



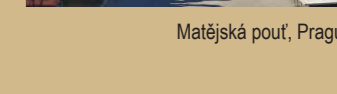
Traffic playground, Ostrava-Poruba



Sendler, Babka, Gergela, Praha, 2012



Loma, Sweden



Tivoli Park, Copenhagen, Denmark



Karl-Marx-Hof, Vienna, Austria



Rehwaldt architects, Erfurt, Germany, 2016



Rehwaldt architects, Erfurt, Germany, 2016



Robinson playground, Vienna



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VEGETATION

POSITIVE PROPERTIES of VEGETATION

- greenery isolates the playground area from the surroundings and also separates the different parts of the playground from each other
- reduces noise from the surroundings (busy roads) or from the playground itself to the surroundings
- prevents children from running from the playground area to other areas
- dust is trapped on the leaves of the greenery, thus reducing dustiness in the area, and the greenery also has a certain ability to trap various harmful gases
- appropriately established greenery therefore improves the environment in the immediate surroundin increases the oxygen content of the air, thereby facilitating breathing, regulates relative humidity and reduces temperature fluctuations
- trees also prevent unwanted air flow or, on the contrary, induce a slight refreshing air movement, especially desirable in summer windlessness
- the trees form shade, which should not, however, cover the entire playing area in the design

(Hurych, 2011 / Machovec, 1987 / Šonský 1987 / Štěpánek, 1963 / Švácha, 1935 / Vorel, 1974).

DESIGNING VEGETATION

When choosing the right taxa, it is very important to take into account the habitat conditions of the area, especially climatic and soil conditions, humidity, lighting of the site and finally the expected level of care. For existing vegetation, the position in relation to the playing environment should always be taken into account, not mindlessly cutting down all the trees in the vicinity.

Greenery should be aesthetically pleasing. In the case of solitary trees, it should have an interesting shape. For all woody plants, the texture of branches, foliage, flowers, fruits and berries, the colour of leaves, flowers, fruits and berries, and the variability during the growing season and life cycle are of interest.



From tree is important select tree that are resistant to mechanical damage. Children think of greenery, especially trees, as one of the objects of play, so they must be relatively resistant to breaking branches, roots being trampled down. For this reason, it is not advisable to plant flowers in playgrounds. It is rarely planted, rather on private playgrounds or in school gardens, where the flower bed may also have an educational value. Shrubs should not be planted near sandpits and paddling pools to avoid polluting them with their parts (Machovec, 1987).

It is advisable to design trees according to the types of growth (výpěstku). Talltrunk's tree and multistemmed species resistant to mechanical damage that branch from the ground and are naturally accessible to children. Smaller trees with an overhanging crown type and a variety of natural gates proportioned to a child's scale are also popular (author's own observation and practise).

It is very important that the plants are safe for children, so they should not cause poisoning and should be soft, flexible and without thorns or spines (Machovec, 1987).

Depending on maintenance, fruit trees can also be planted - these are particularly suitable for nursery gardens. In addition, parts of some woods, such as willow wicker, are particularly suitable for use in handicrafts or simple building. Hardy plant species are particularly suitable as boundaries for play areas.

Children are generally interested in flowers, so it is a good idea to include species that flower at less common times.

The quality of playing areas can be therefore enhanced by the selective use of plants. Berry plants, fruit and nut trees, fragrant plants or even plants with special colours and leaf shapes can stimulate the senses and serve as play material.

Autumn-coloured leaves or interestingly peeling leaves are attractive. Very popular are fruits that can be freely collected to use for play. Examples of berries include *Staphylea*, *Corylus*, *Quercus*, *Aesculus*, *Sorbus* and *Symphoricarpos*.

(Hlavničková, 2017 / Zimmermann, 2015)

PLANTS ASSORTMENT

It is natural for children to explore the world with all their senses, they tend to put everything in their mouths. Older children, in the thrill of discovery, often actually test the taste of the various fruits they find in the garden. They lick the juices and brew „milk and tea“ from the mashed fruits and often touch their eye with a stained hand.

They often touch plants that cause dermatitis especially when exposed to sunlight. For children, the best protection is patient explanation when walking in the open air and in the garden. It is therefore important to have an educational influence on children from the different environments they are in daily, especially home and school.

(Kožešínková, 2010).

DANGEROUS woody plants

1/ SHORT-STATURED trees

These types of trees already have crown breakage at a relatively young age, with the risk of breakage generally increasing with the age of the tree. There is a high risk of injury if these trees are located in close proximity to or directly on the playground. These trees should be removed in good time or pruned regularly. For other genera, this risk is not as significant as for the above mentioned ones (Machovec, 1987).

- *Acer negundo* / *A. saccharinum*
- *Aesculus hippocastanum*
- *Ailanthus altissima*
- *Gymnocladus dioicus*
- *Populus nigra* / *P. alba* / *P. balsamifera* (and their hybrids)
- *Paulownia tomentosa*
- *Pterocarya fraxinifolia*
- *Salix alba* / *S. fragilis*

2/ THORNY WOODY tress

Thorny trees are a danger, especially for shrubs or young individuals of thorny tree species. It is important to distinguish for which age group the playground is intended.

For playgrounds for younger children, these trees should not be placed in or near play spaces. Even conifers with sharp needles such as species of the genera *Pinus* or *Picea* are inappropriate.

In the case of playgrounds for older children, thorny trees can be placed in areas where it is undesirable for children to move. Spiny trees are uncomfortable but not dangerous when penetrated. With the description that some plant parts are mildly poisonous, they can be used in these cases:

- *Berberis* (poisonous parts roots, bark)
- *Ilex* (poisonous parts red berries)
- *Hippophae*
- *Prunus spinosa*

If they are trees with too thick, strong and long thorns, they cannot be used on this type of pitch:

- young species of *Gleditsia triacanthos*
- *Crataegus crus-galli* / *C. marcantera*
- some species of *Elaeagnus*
- *Poncirus trifoliata*

3 / POISONOUS tress

In the case of tree poisoning, the suitability can again be assessed in terms of the ages of children.

In the case of older children, if poisonous trees are placed in the right location (e.g. a school garden), they can become an educational and demonstrative element that will teach children to recognise poisonous species and thus prevent poisoning in other places.

Younger children, on the other hand, must not come into contact with poisonous plants at all, especially those with attractive fruits. Among the most dangerous are woody plants with showy flowers rich in poisonous nectar, such as:

- *Laburnum anagyroides* (hallucinogenic)

In addition, the poisonous flowers of most species of the genera:

- *Cytisus*
- *Genista*
- *Robinia*

Among the tree species with the most poisonous fruits are:

- *Daphne*
- *Rhamnus*
- *Euonymus Europaeus*

Whole plant poisonousness:

- *Daphne*
- *Hedera helix* (leaves & ripe berries)
- *Juniperus x media* / *J. chinensis* / *J. sabina* / *J. virginiana*
- *Prunus laurocerasus*
- *Thuja occidentalis* / *T. orientalis*

Less poisonous are the genera:

- *Lycium* (entire plant)
- *Ligustrum* (entire plant)
- *Lonicera nigra* / *L. xylosteum* (berries)
- *Viburnum lantana* / *V. opulus* (bark, leaves, berries)

A special case is the genus *Taxus* which has the whole plant highly poisonous (seeds, needles, wood) EXCEPT for the RED part, which is an attraction for children (Machovec, 1987 / Zimmermann, 2015).

4/ ALLERGENIC

It is also worth mentioning the species of trees with hairy fruits, causing allergies in some people a species of genera:

- *Betula*
- *Populus*
- *Salix*

(Kožešínková, 2010).

PARTICULARLY WELL-SUITED woody plants and herbs

Tress

Despite major limitations, the range of products suitable for playgrounds is still quite varied. As already mentioned, trees in playgrounds are subject to mechanical damage and taxa with good regeneration capacity should be chosen:

- *Acer campestre*
- *Amelanchier ovalis*
- *Carpinus betulus*
- *Prunus racemosa*
- *Quercus robur* / *Q. petraea* / *Q. rubra* / *Q. pubescens*
- *Tilia cordata* / *T. platyphylla* / *T. tomentosa* (good wood for carving)

In conifers, the regeneration capacity is weaker, but you can still use e.g:

- *Larix decidua*
- *Picea omorika* / *Picea pungens*
- *Pinus silvestris* / *Pinus nigra* / *Pinus strobus*
- *Pseudotsuga menziesii*
- *Tsuga canadensis*

Very suitable species for use in playgrounds include:

- *Celtis occidentalis*
- *Corylus colurna*
- *Sophora japonica*

Many species of the genera *Salix*, *Alnus* and *Populus* are also suitable due to their rapid growth, but these trees need to be pruned and removed early.

- *Salix caprea* / *S. viminalis*
(dormant cuttings for making willow tunnels, willow tents and similar living willow structures)

Srubs

- *Acer*
- *Berberis*
- *Buddleja altrnifolia*
- *Carpinus betulus*
- *Cornus mas* / *C. sanguinea*
- ***Coryllus avellana***
(material for bows and arrows; eated nuts)
- *Forsythia*

- *Fraxinus exelsior*
(suitable for making whistles)
- *Kerria*
- *Philadelphus*
- *Ribes*
- *Rosaceae/ Rosa species*
(with a range of fragrant, colourful and non-poisonous species + fine hairs from inside the rose hips as itching powder)
- *Rosaceae/ Rosa species*
- *Sambucus nigra*
(suitable for whistles and blow pipes as well as arrowheads for aechery; because the berries are midly poisonous, can only be recommended with restrictions)
- *Staphylea pinnata* (playable fruits)
- *Symphoricarpos albus*
(fruits used as „bang snaps“; because the berries are midly poisonous, caan only be recommended with restrictions)
- *Syringa vulgaris*
- *Spiraea*
- *Tamarix*
- *Viburnum lantana*
(Machovec, 1987 / Zimmermann, 2015)

Herbs

There are EDIBLE FLOWERS of plants according to the long-standing research of Mrs. Ing. Jarmila Neugebauerová Phd. Who, among other things, has been organizing summer seminars with tasting of edible plant flowers in the Lednice Theme Gardens for several years in a row.

Here is only a selection of some of the many species studied by the doctor and their possible uses:

- *Cichorium intybus*
- *Echium vulgare*
- *Lamium album*
- *Centaurea cyanus*
- *Bellis perennis*
- *Viola odorata*
- *Sambucus nigra*
- *Thymus vulgaris*
- *Alcea rosea*
- *Ocimum basilicum*

(lecture of Neugebauerová, 2018)

LEGISLATION

The design and care of planting is covered by a set of standards and other legislation dealing with vegetation management (origin Czech desription):

NORMS

- **Arboristické standardy AOPK ČR: 01 002 Ochrana dřevin při stavební činnosti, 02 001 Výsadba stromů, 02 002 Řez stromů a 02 003 Výsadba a řez keřů**

- **ČSN 83 9011: Práce s půdou**
- **ČSN 83 9021: Rostliny a jejich výsadba**
- **ČSN 83 9041: Technicko-biologické způsoby stabilizace terénu**
- **ČSN 9051: Rozvojová a udržovací péče o vegetační plochy**
- **ČSN 83 9061: Ochrana stromů, porostů a vegetačních ploch při stavebních pracích**
- **ČSN 46 4902 Výpěstky okrasných dřevin**

- **Zákon č. 114/1992 Sb. o ochraně přírody a krajiny**

- **Vyhláška č. 189/2013 Sb. o ochraně dřevin a povolování jejich kácení**
- **Vyhláška č. 395/1992 Sb. kterou se provádějí některá ustanovení zákona č. 114/1992 Sb., o ochraně přírody a krajiny**

RESOURCES

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P3/ <file:///C:/Users/petra/Downloads/d41586-018-06747-w.pdf>

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05

South town

LOCALIZATION / WIDER CONNECTIONS

NATURAL CONDITIONS (soils, klima, noice)

LAND-USE PLAN

METROPOLITAN PLAN

TRAFFIC

DEMOGRAPHY

PLAYGROUNDS

SOUTH TOWN I.

SOUTH TOWN II

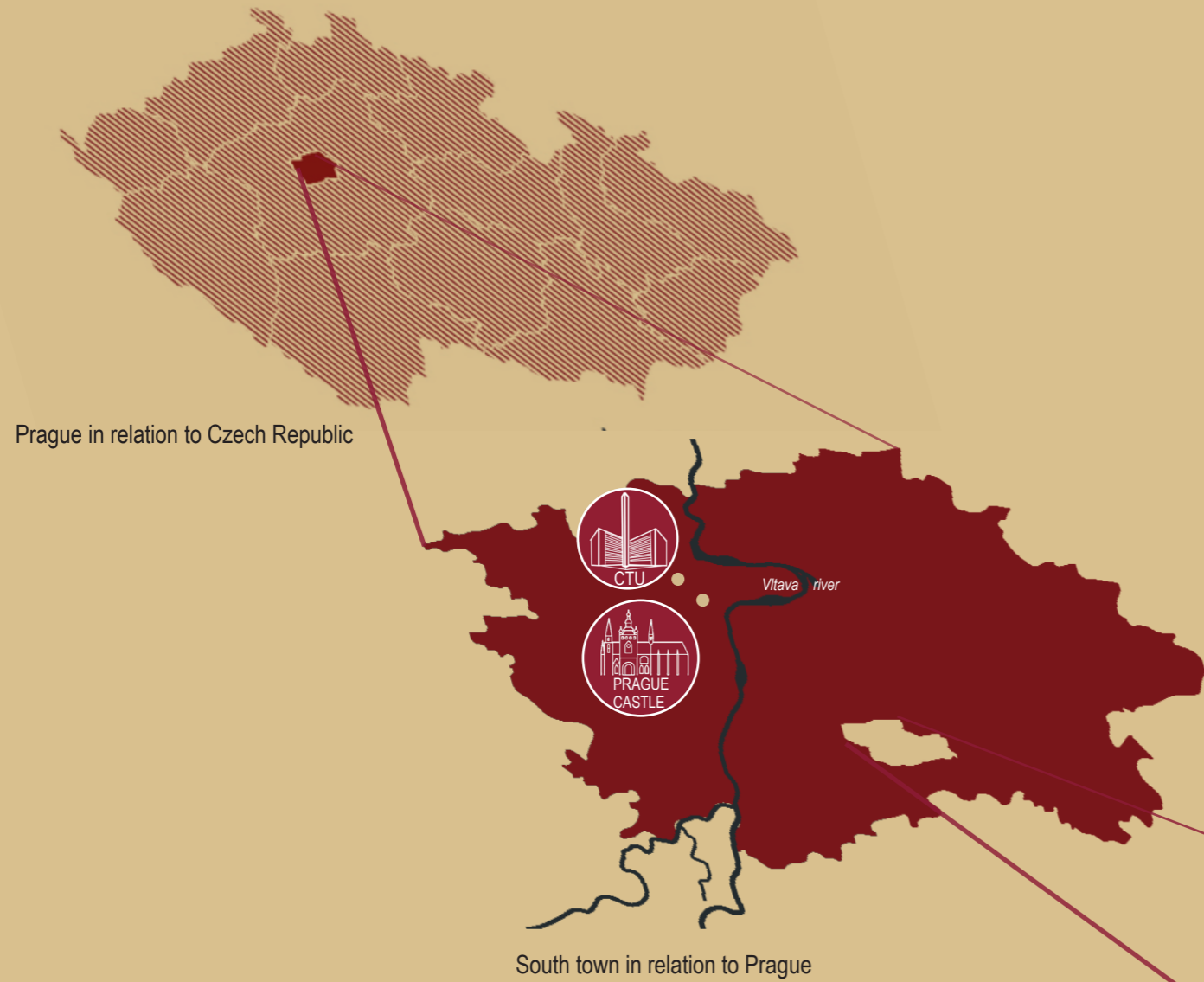
SCHOOLS

INSTITUTIONAL OBJECTS related to children

SCULPTURE and MONUMENTS



LOCATION



Study area in wider relation to main parks, traffic structures

The South Town lies approximately 15 km south of the centre of Prague. It is the territory of Prague 11 consisting of two cadastral areas Chodov and Háje. With an area of 979 ha (Chodov 743, Háje 236 ha) it is often referred to as the largest settlement in the Czech Republic (URL1, 2008).

The area started to grow on area of Háje from the original two suburban villages of Chodov and Háje to its present form in 1971 due to its unique conditions (URL1).

The unique conditions include transport accessibility due to the metro to the city centre as well as the main motorway route to the whole Czech Republic (Lukavec, 2022). Furthermore, the proximity of the area to the surrounding vast natural formations - three main parks - Kunratice, Hostivař and Milíčov with diverse natural morphology, water features, fauna and flora.



Two cadastral areas Chodov and Háje in Prague district 11

NATURAL CONDITIONS

terrain & water & parks

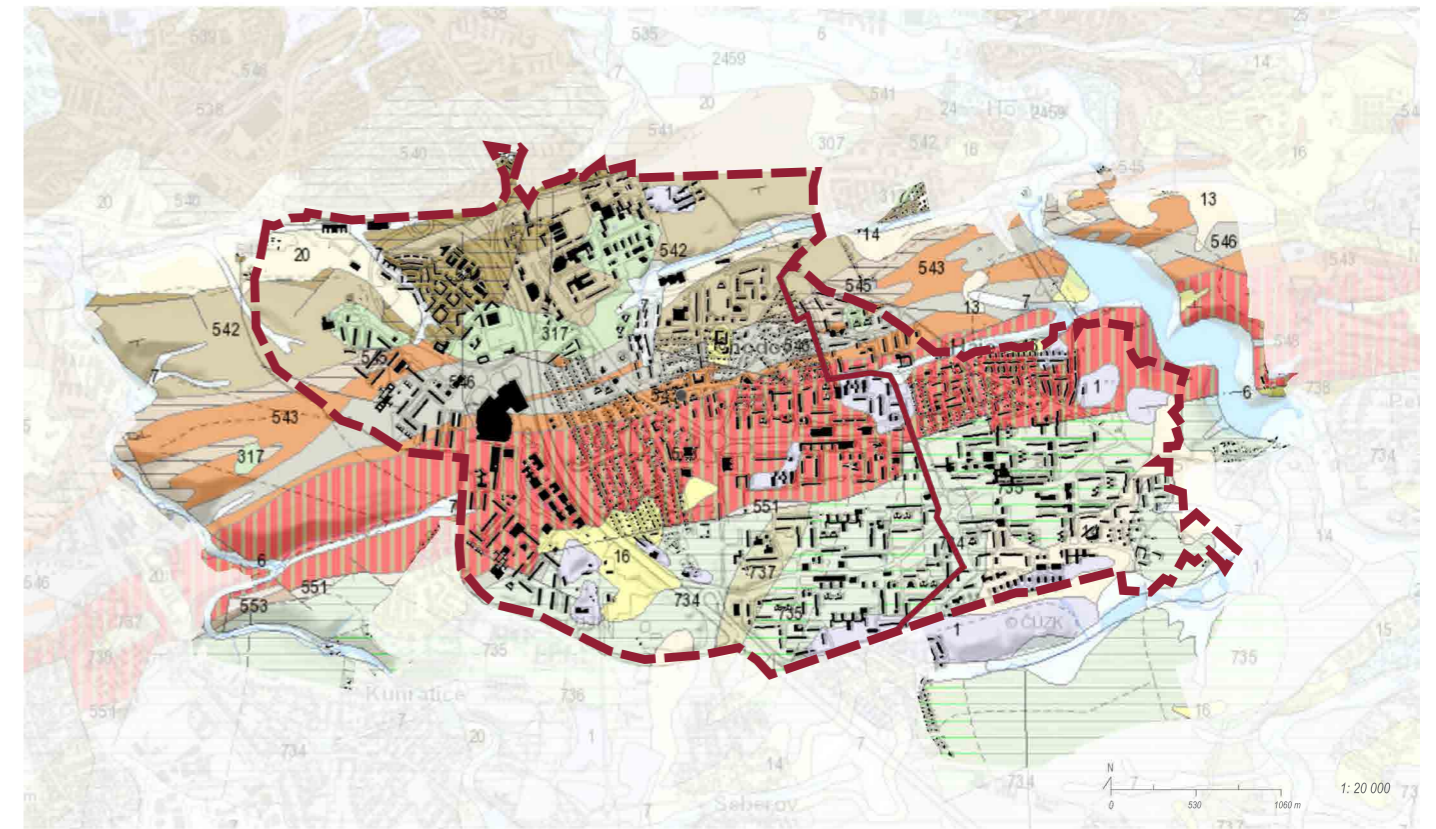
The entire area with an altitude range of 240 - 320 m above sea level (URL1) is located on a plateau elevated compared to the rest of the terrain and water flows towards the valley areas of the surrounding natural units. These are three parks - 'Kunratický lesopark' and two metropolitan level parks - 'Milíčovský park' and 'Hostivařský lesopark' with valley character and water features. From the north, the area is bordered by the 'Košíkovský potok', which rises north of Chodovská tvrz and continues to the large Hostivař reservoir together with the 'potok Botič'.

geology & soils

From the geological point of view, the subsoil is dominated by black shale, quartz sandstone - stretching in a belt across the entire area from 'Kunratický' to 'Hostivařský lesopark'. Above them we find a soil cover of a predominantly clayey character. The impermeable clay is now very close to the surface in most of the area because the topsoil was removed during the construction of the settlement. Thus, there are also clays, loams, loess to the south of the old Chodov, and also accumulated anthropogenic soils dominating the Milíčov Park (URL3). The original soil types of brown soils, illimerised soils and also gleys in the catchment area of the Košíkovský potok and the Botič potok, affected by the construction of the settlement, are now anthropogenic soils in most of the area (URL4).

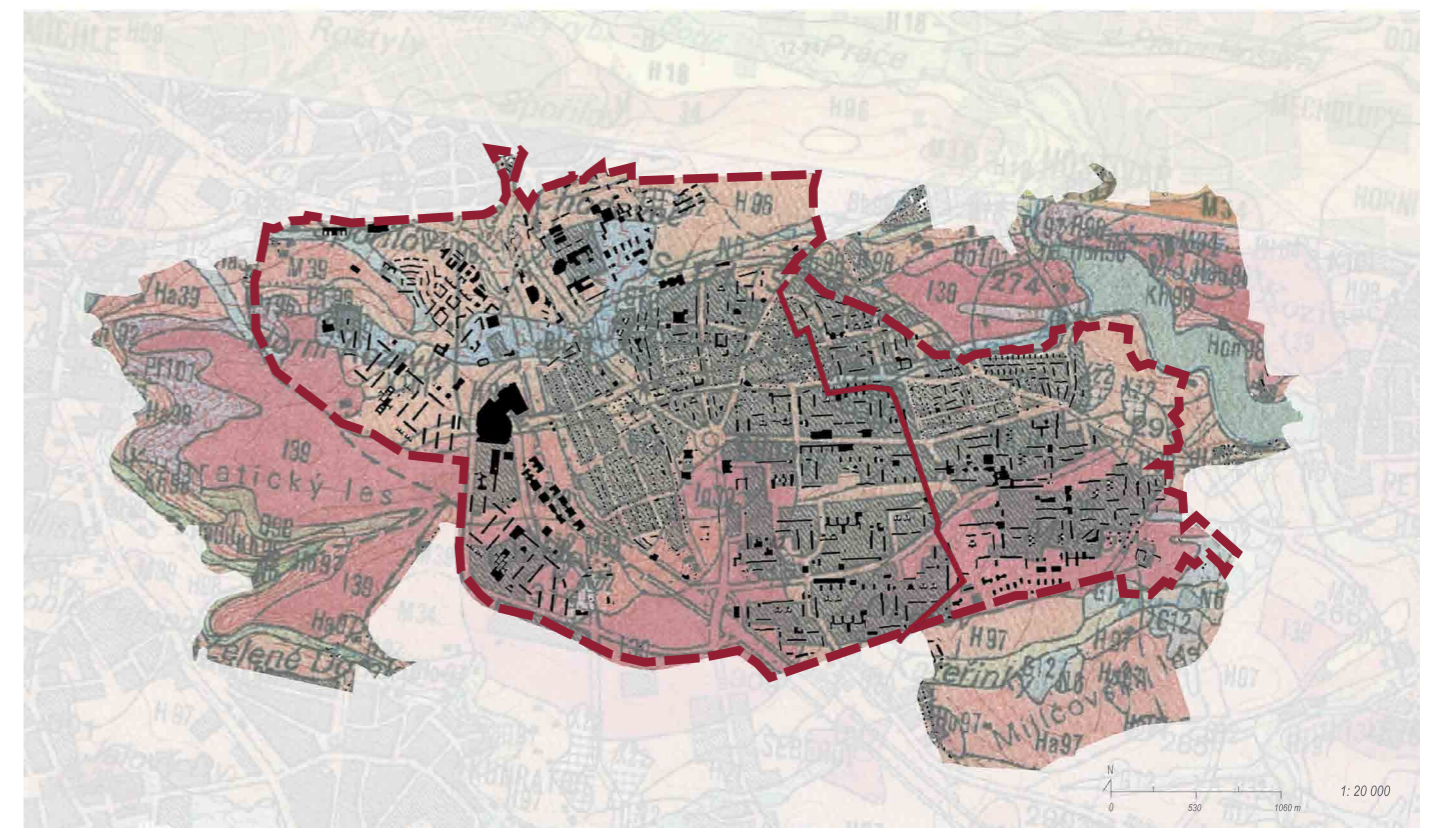
air conditions & noise

Climatically, according to Quitt's climate region classification, it is **MT2 - moderately warm** and **moderately humid** - with an average annual rainfall of 550-700 mm (URL5). In terms of climate rating, the area mostly falls into the **acceptable** level, the worst part is in the area of the D1 highways - **deteriorated**, and in the vicinity of the park **good** to **very good** (URL6). Parks are also **quiet areas** according to the noise reduction action plan for the Prague agglomeration and are the least burdened by immissions (URL7). Air quality in terms of increasing levels of immissions deteriorates from the park towards the motorway, as does the level of Nox gas sources (URL8). Thus, residents from the Roztyl and Old Chodov areas have the worst health conditions in terms of air and noise conditions.



GEOLOGICAL MAP
ANALYSES • the SOUTH TOWN

- marlstone - slínovce
- black shale - černé břidlice
- quartz sandstone - křemenné pískovce
- claystones - jílovce
- loess - spraše
- anthropogenic soil - navážka
- black grey clay shale - černošedé jílové břidlice
- ofal - droby



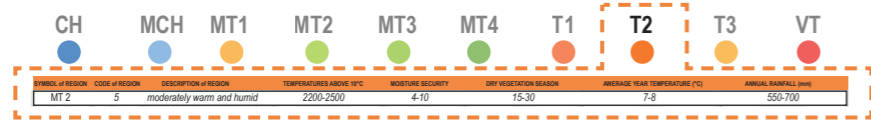
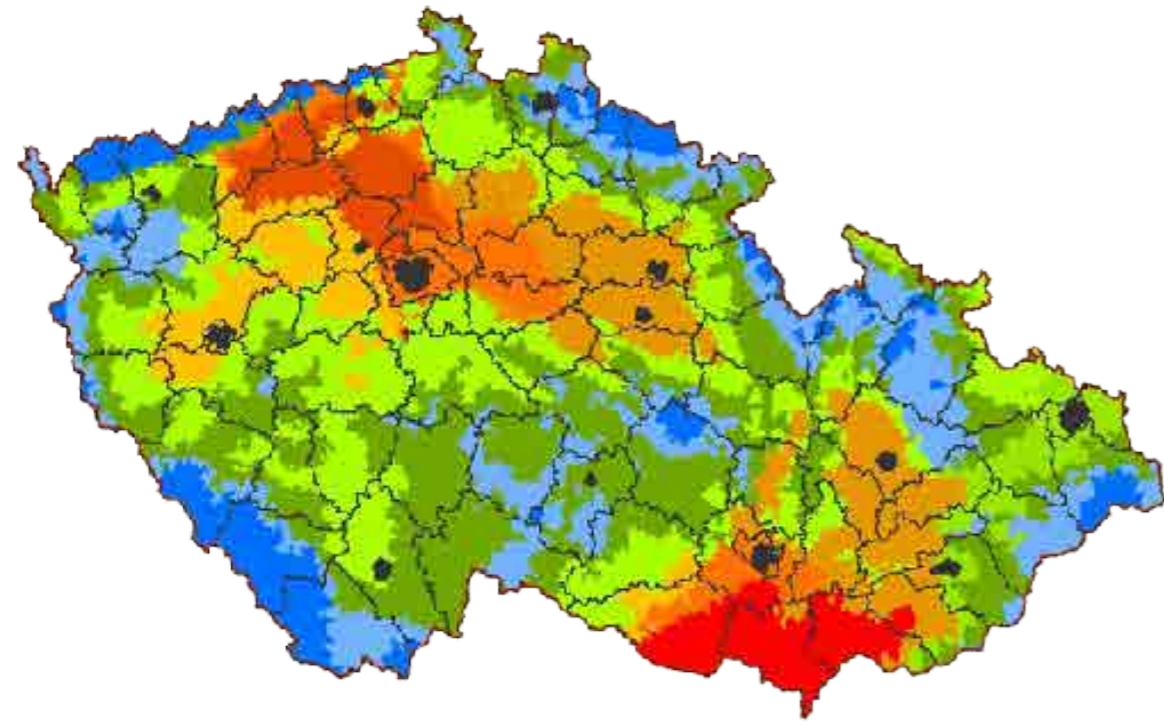
SOIL MAP
ANALYSES • the SOUTH TOWN

Inner city

- I - illimerised soil - illimerizovaná
- H - brown earth - hnědé půdy
- Bh - pelosol brown - pelosol hnědý
- G - glei soil - glej

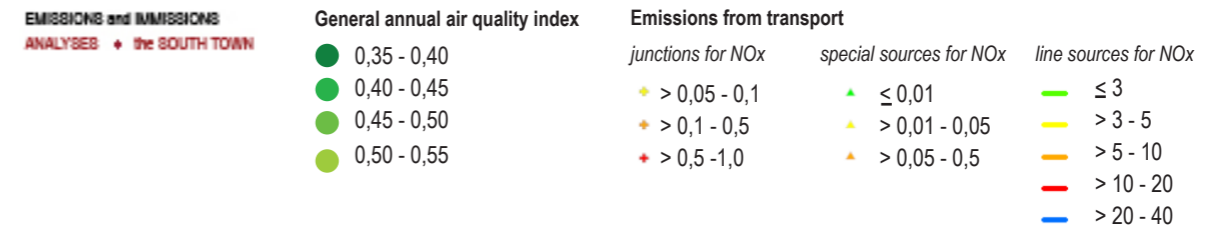
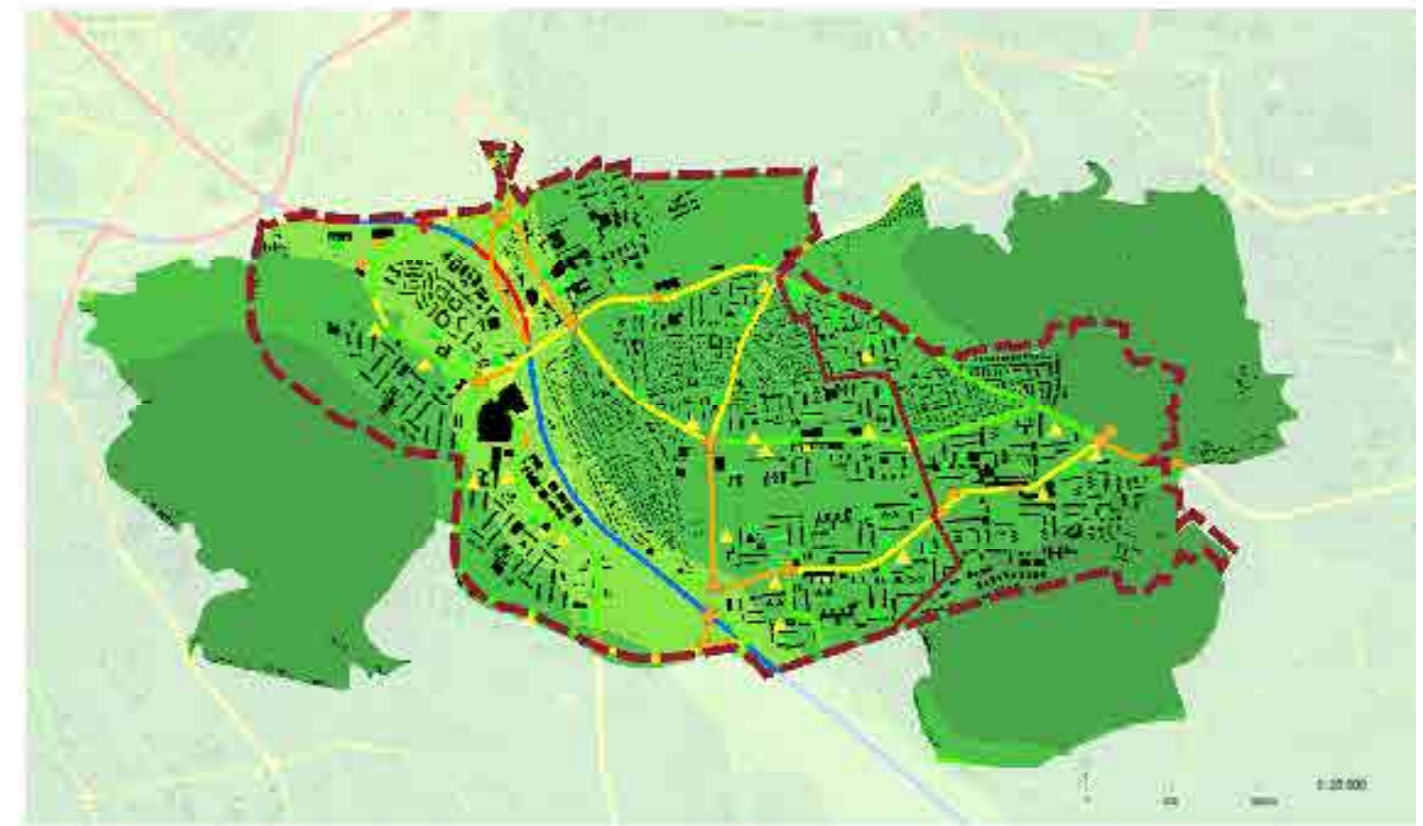
Parks

- Ha - brown soil acidic - hnědá půda kyselá
- Kh - ranker brown - ranker hnědý
- Pf - iron podzol - podzol železitý
- Xž - anthropogenic soil - antropozem

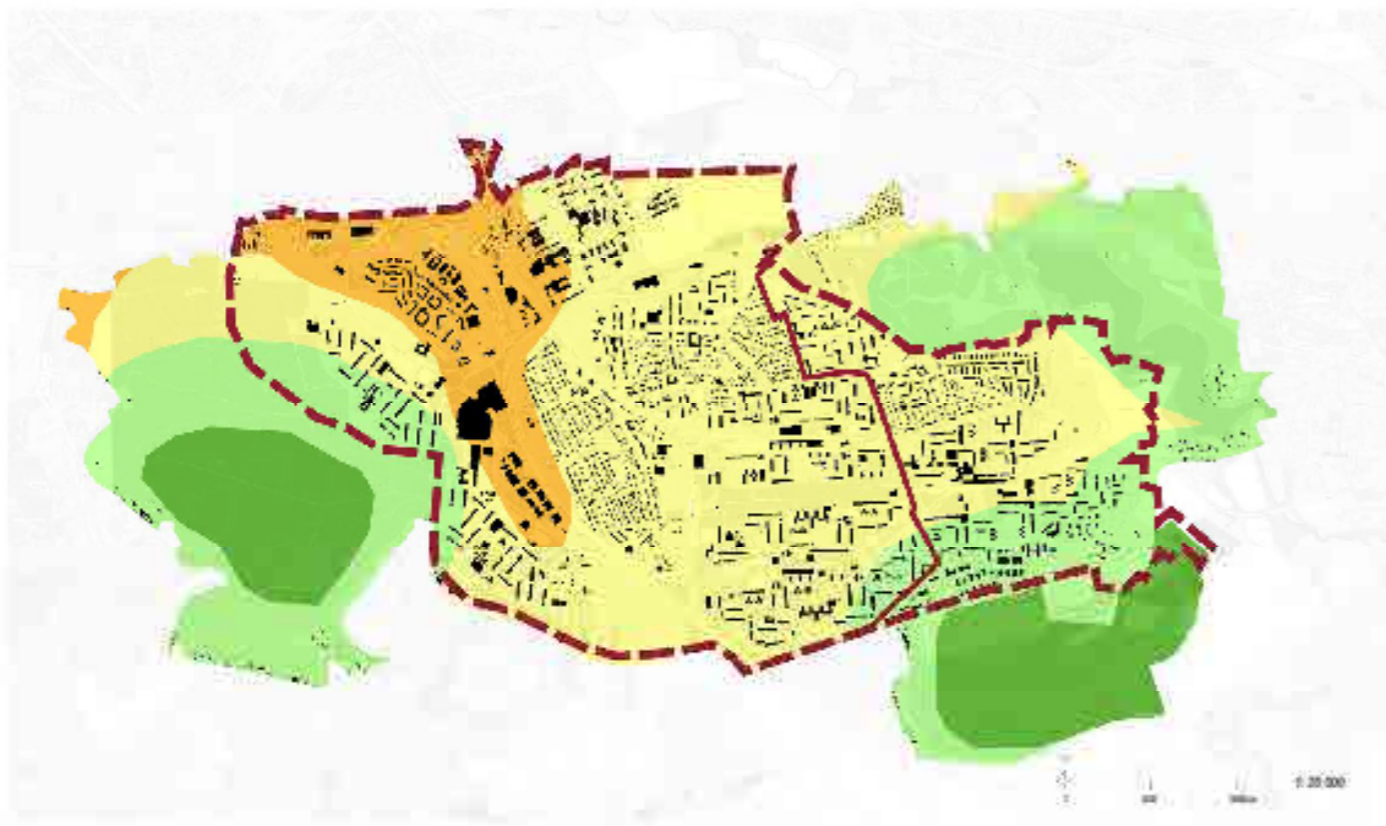


CLIMATE REGIONS
 ANALYSEB ■ the SOUTH TOWN

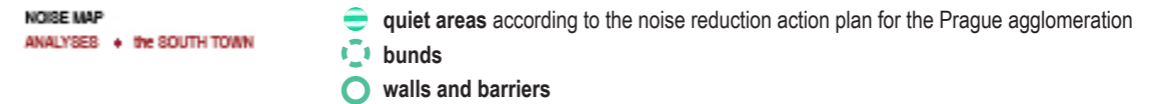
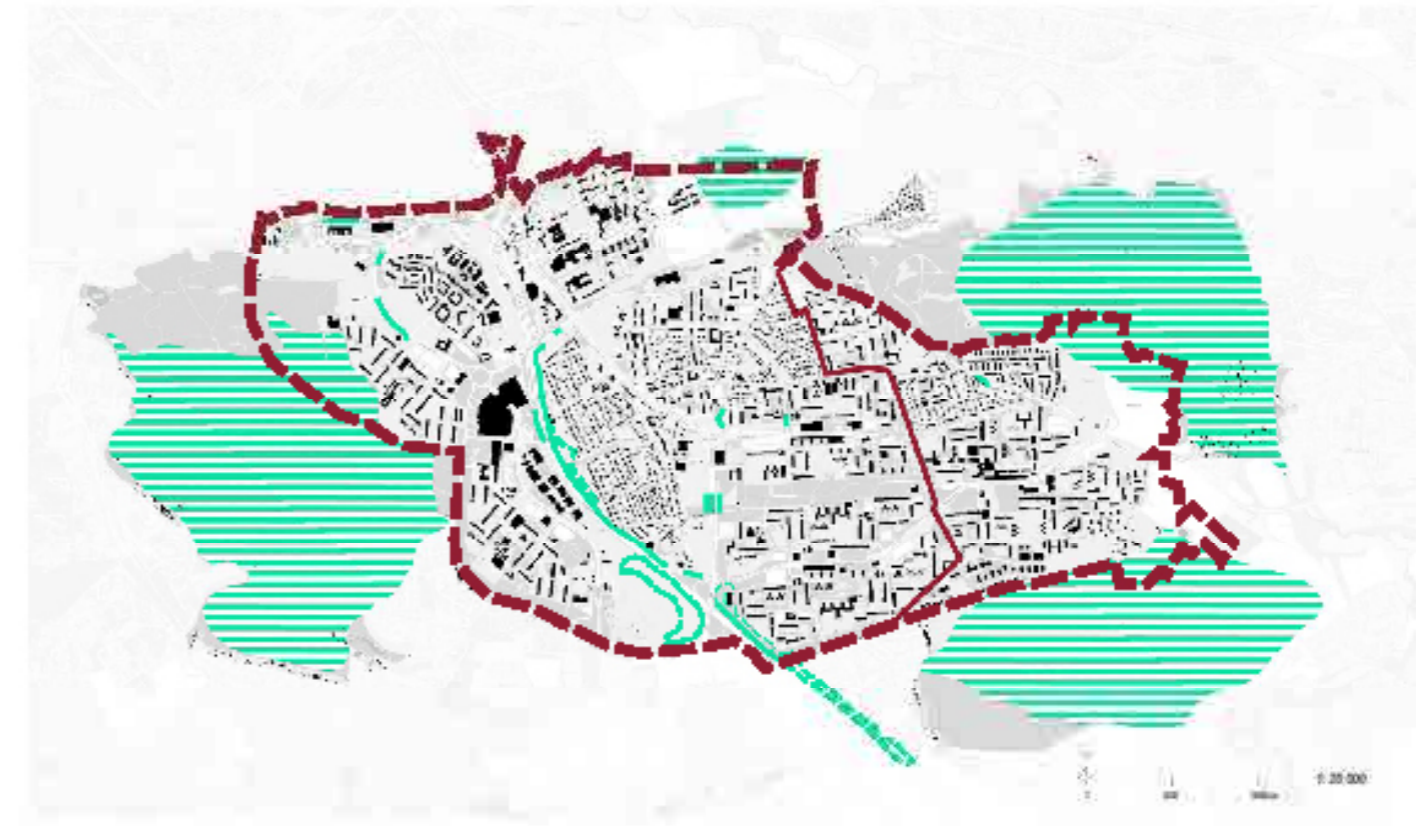
(URL5)



(A_URL8)



(URL6)



(URL7)

Valid land-use plan

The spatial plan from 1999 presents the South City and its zones of the main functions. Neighborhood residential areas has good proximity with public facilities, mostly in the form of schools. The original plan of the main center in the Opatov area linked to the main central park is visible. It is also readable an unconnected system of partially urbanized and natural green parts of the whole city in connection to the surrounding parks.



LAND USE PLAN

ANALYSEB - THE SOUTH TOWN

- Mixed areas of the urban core
- Purely residential
- Generally mixed
- Generally residential




- Public facilities
- Special complexes of civil equipment
- Partially urbanized/natural areas for relaxation and recreation
- Communication network
- Urban and landscape greenery
- Forest vegetation

Metropolitan plan

Prague has changed significantly since 1999, which is why a metropolitan plan was created, which should be approved this year as a replacement for the spatial plan. From the point of view of possible future planning, defined transformation and development areas with future residential and recreational use are important in the territory of the South City, where new places should be planned and implemented based on the needs of children and all residents.



Buildable DEVELOPMENT area

-  production use
-  residential use
-  recreational use

Buildable TRANSFORMATION area

-  production use
-  residential use
-  recreational use

METROPOLITAN PLAN

ANALYSES - the SOUTH TOWN

Traffic

The transport solution has its main position in the territory. It provides the inhabitants of South Town fast accessibility to other parts of Prague. However, many transport structures are more a barrier than a solution from children perspective.



- | | | | | | |
|--|---------------------------------------|--|----------------------------------|--|----------------|
| | highway D1 | | tourist route - significant | | subway station |
| | 1st class local communication | | tourist route - local | | bus station |
| | 2nd class local communication | | tourist route - short/connecting | | gas station |
| | 3rd class local communication | | educational trail | | |
| | selected 4th class local roads | | subway line | | |
| | selected purpose-built communications | | | | |

Large car parks outside the estate, while the inner streets of the estate are crowded with cars obstructing movement and views. Other traffic structures such as underpasses, bridges, are in many places an unnecessary

barrier to prams, wheeled vehicles, pensioners and children with baby steps. Good pedestrian crossings connection missing in many places (especially close to schools).

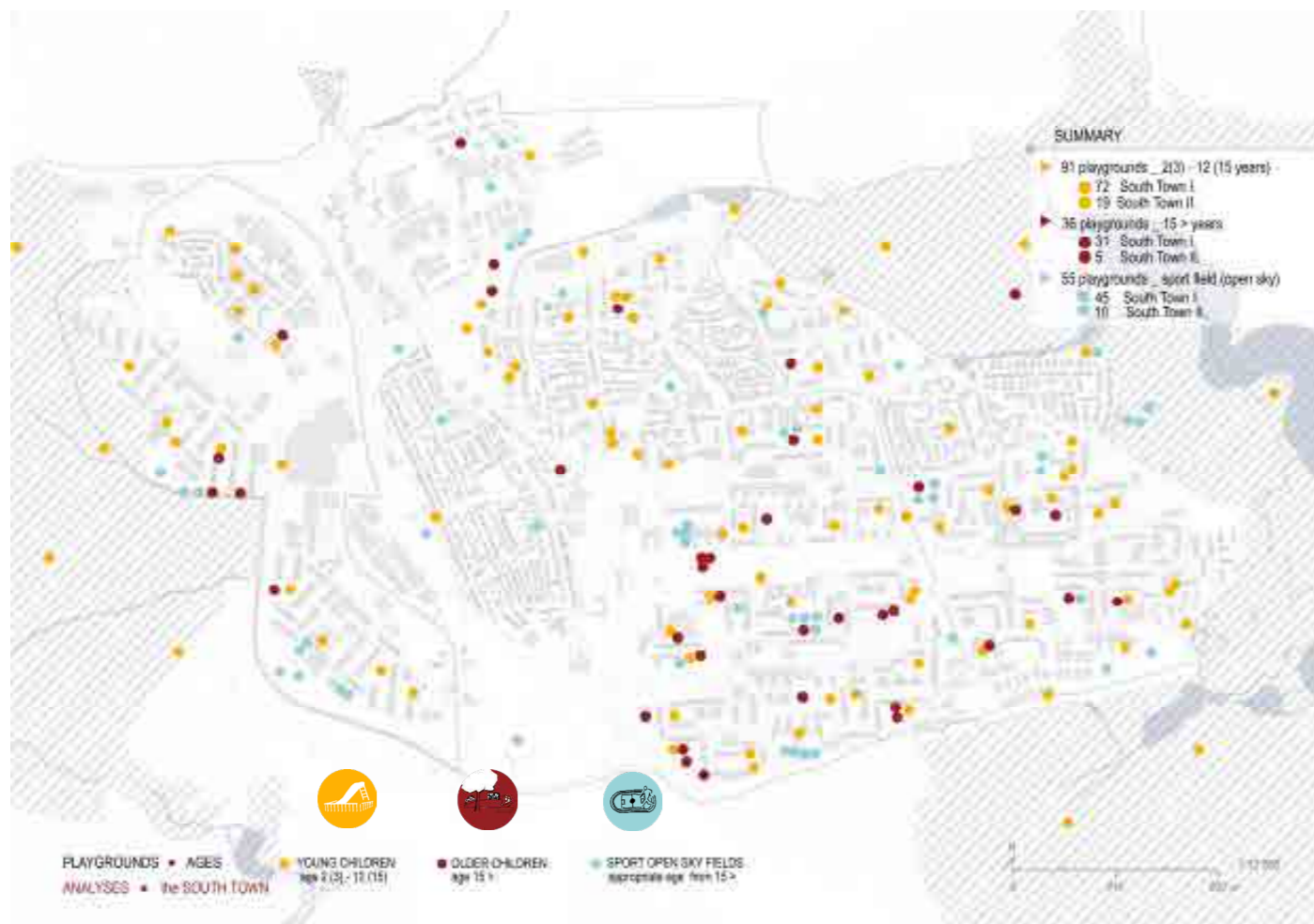
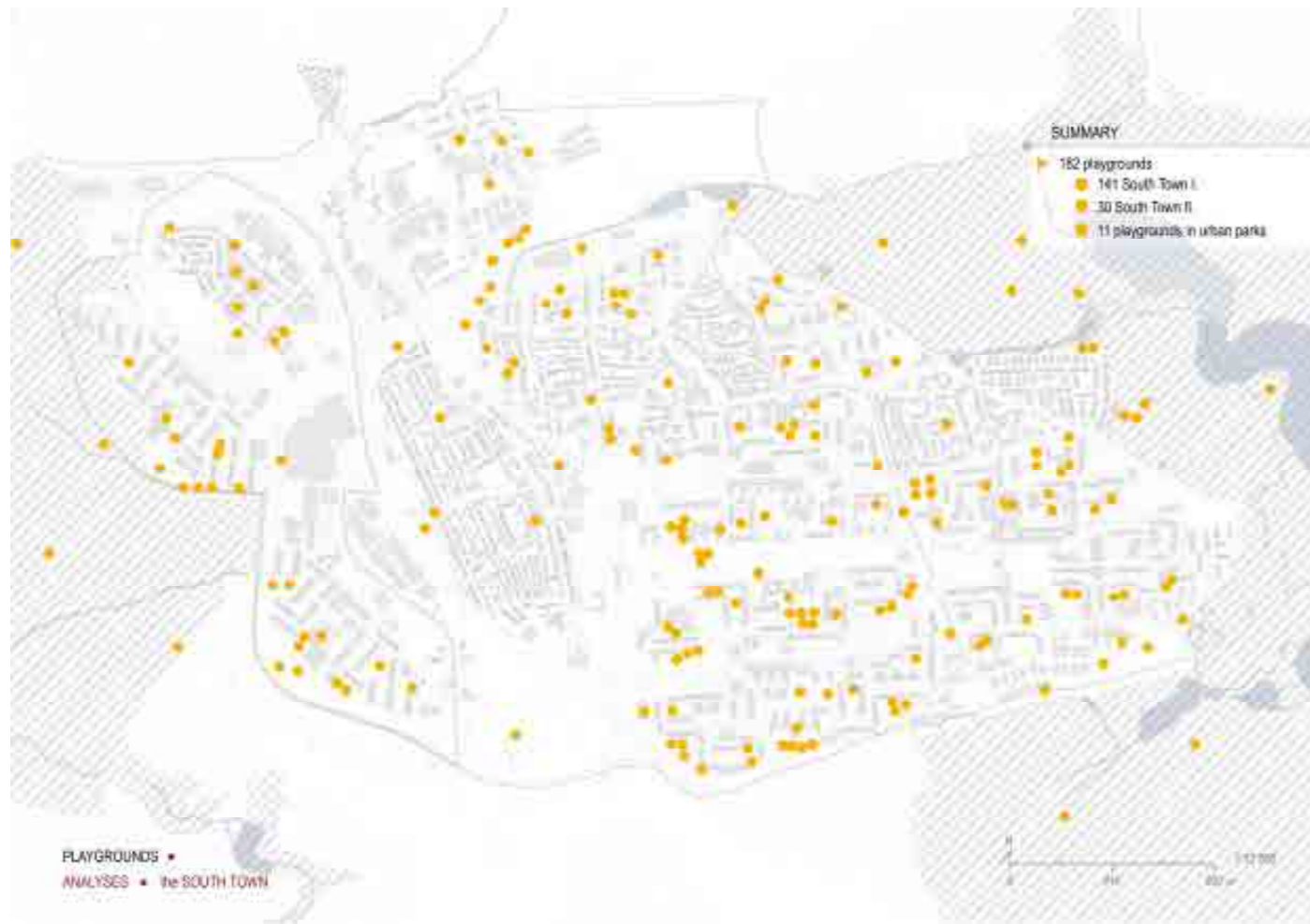


- | | | | |
|--|---------------|--|---|
| | parking area | | barrier-free route for wheelchair users |
| | park and ride | | cycle-path |
| | | | recommended cycle route connections |

SELECTION of TRAFFIC PROBLEMS



Playgrounds



PLAYGROUNDS for 2 (3) -12 (15) years old children

fenced character with typical standart play equipment
fencing to undefinable shapes, play equipment boring for 7 > ages

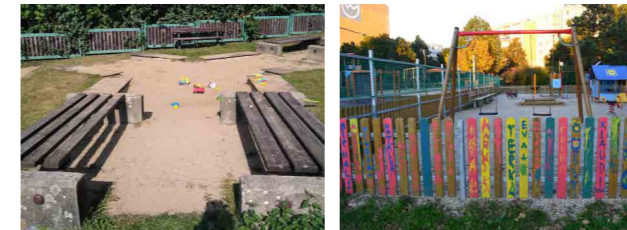
Play features: sandbox, slide, swing, swing spring, trapeze, roundabout
Materials: surfaces - prafabricated system of synthetic tiles (prevails), grass, gravel

play equipment - plastic, galvanized steel
fence - wood
mobilier - wood, concrete



Vegetation: rarely a tree part of the playground
vegetation around fenced area

Facilities: no social facilities, no drink water, no water element



PLAYGROUNDS for 15 > years old children

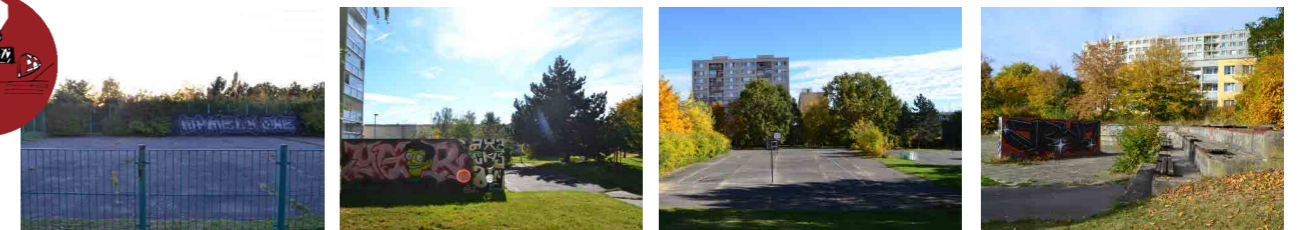
open character without any play features
often wall with art work as a part of playground

Play features: ping pong tables, football / floorball / hockey - goals, basketball hoop

Materials: surfaces - asphalt
play equipment - plastic, galvanized steel
fence - concrete, steel
mobilier - wood, concrete

Vegetation: no vegetation as a part of playground
vegetation around fenced area

Facilities: no social facilities, no drink water, no water element



SPORT FIELD (open sky)

fenced character mostly with opening hours or paying system

Play features: football / floorball / hockey - goals, basketball hoop

Materials: surfaces - artificial surfaces based on polyurethanes and acrylics
play equipment - plastic, steel
fence - steel
mobilier - wood, concrete, steel

Vegetation: rarely trees as a part of playground
vegetation around fenced area

Facilities: no social facilities, no drink water, no water element



foto: autorka (2021)



Playground by west entrance of West Field Chodov © author



Bludiště - Maze / Park by Chodovská Trz © author



Relax place / Park by Chodovská Trz © author

Park by Chodovská Trz

- activities for all generations - INCLUSIVE character
- mini golf, disco golf, work out
- enough furniture
- impact surfaces: rubber, gravel
- near a restaurant with social facilities
- vegetation - lack of shade
- social facilities



Playground / Hostivař forest park © author

- age 2 - 13
- without fence
- child scale landscape
- rubber and stainless steel material
- impact area of gravel
- social facilities close by in the shopping center
- benches near the fountain
- vegetation based on concept and composition in child scale



Dog meadow © author



Playground at the log cabin / Kunratic forest park © author

- for all generations - INCLUSIVE character
- natural character of play features
- materials getting old



Pump track / by street Na Jelenách © author



Playground / Central Park © author



Playground / Central Park © author



SUMMARY

- 162 playgrounds:
- 141 South Town I
- 30 South Town II
- 11 playgrounds in urban parks



Work out / Hostivař forestpark © author

- work out steel elements
- 15 - 100 age
- good location in semishade part of forest park
- placed randomly / old materials



Parkour / Pump track in background / Kupeckého leisure area / By Modrá school © author

- age 15 >
- 3D printing - recyclable concrete + steel elements
- creative rounded shapes
- author of field specialization VUT Brno + MČ Prague 11



Work out / street Jažlovická © author



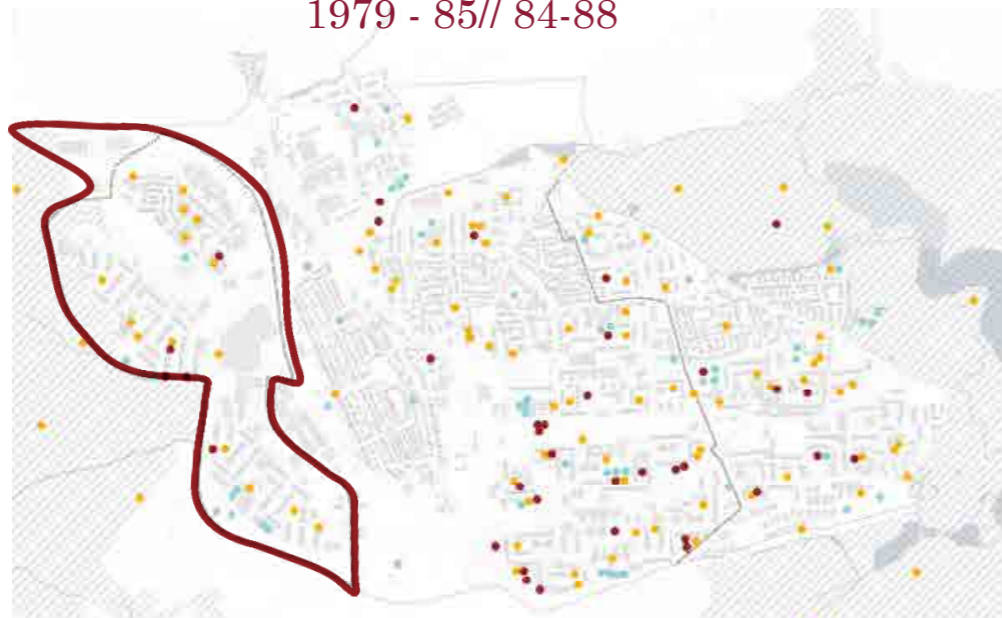
Work out / Park Křtinská © author



Traffic playground / street Prašná © author

SOUTH TOWN II.

1979 - 85// 84-88

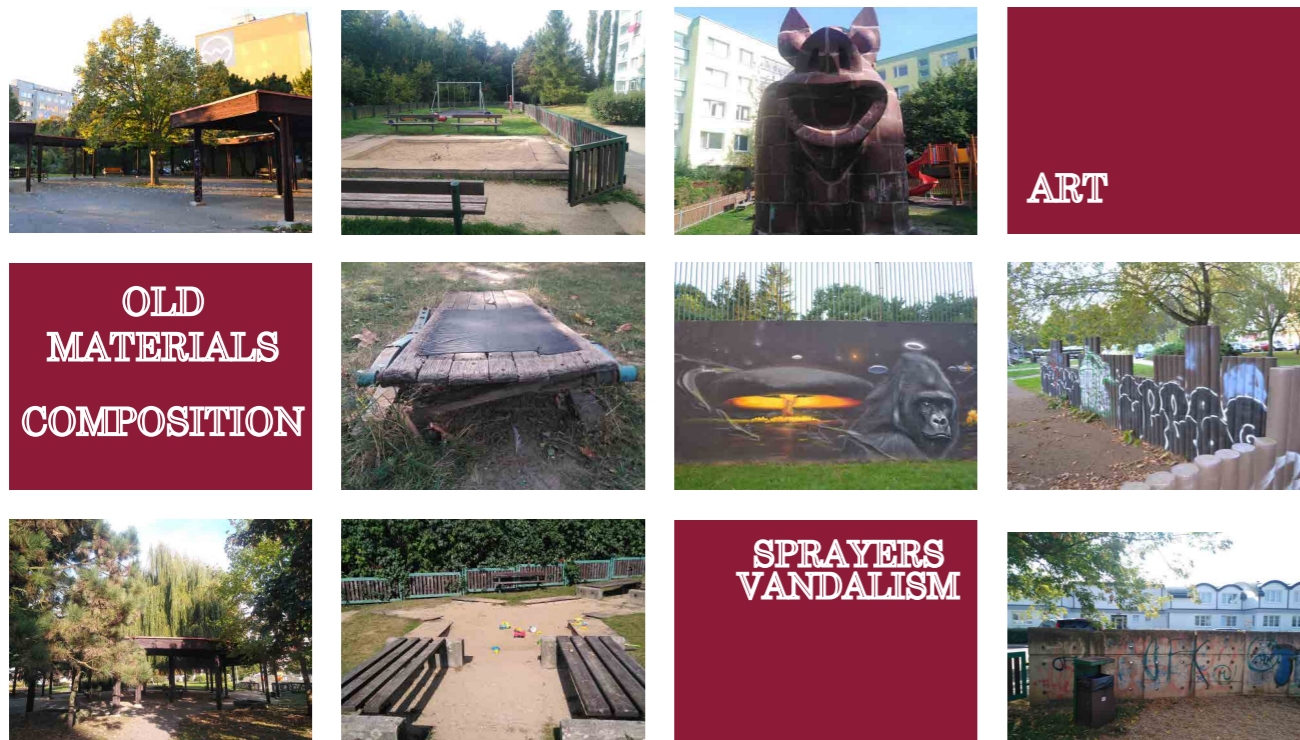


PLAYGROUNDS

- > 19 playgrounds for 2-12 (14) years old children
- > 5 playgrounds for 15 > years old children
- > 10 sport fields

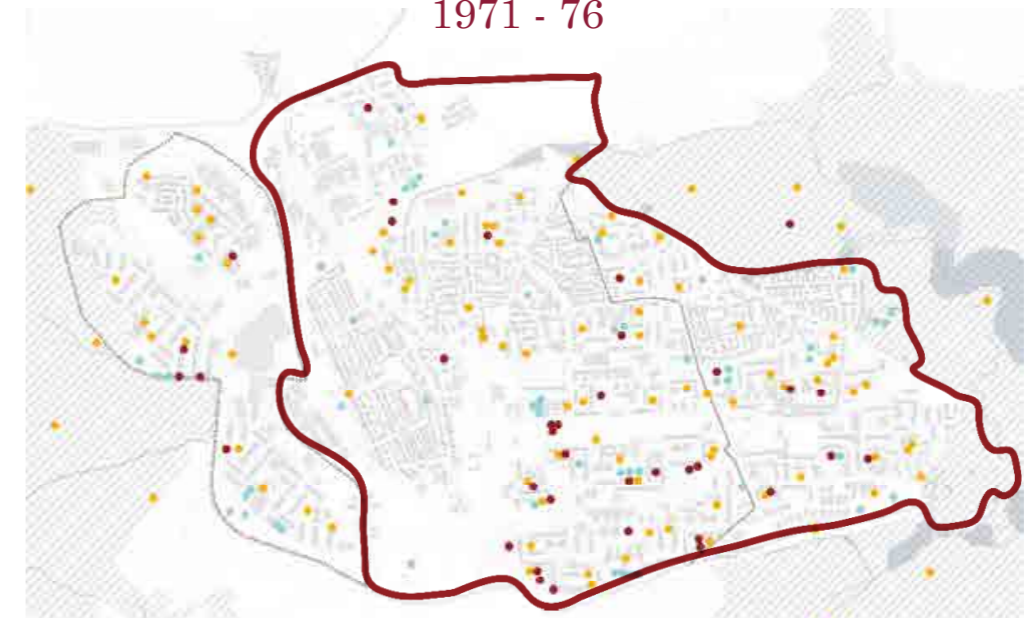
- > often circular pergola with solitary middle tree (willow / linden) close to playgrounds
- > art sculptures and paints as part of some playgrounds
- > uniform materials and elements
- > predominance of playgrounds for children under 8 years
- > boring play equipment for organized type of activity
- > vegetation mostly around play area
- > field terrain modeling infrequent
- > unnecessary useless old elements close to playgr.
- > old materials -no maintenance
- > sprayers vandalism
- > missing access to drink water
- > missing access to main sanitary facilities
- > no traffic playgrounds
- > no parkour, skate, inclusive playground

CHARACTER os SOUTH TOWN II.



SOUTH TOWN I.

1971 - 76

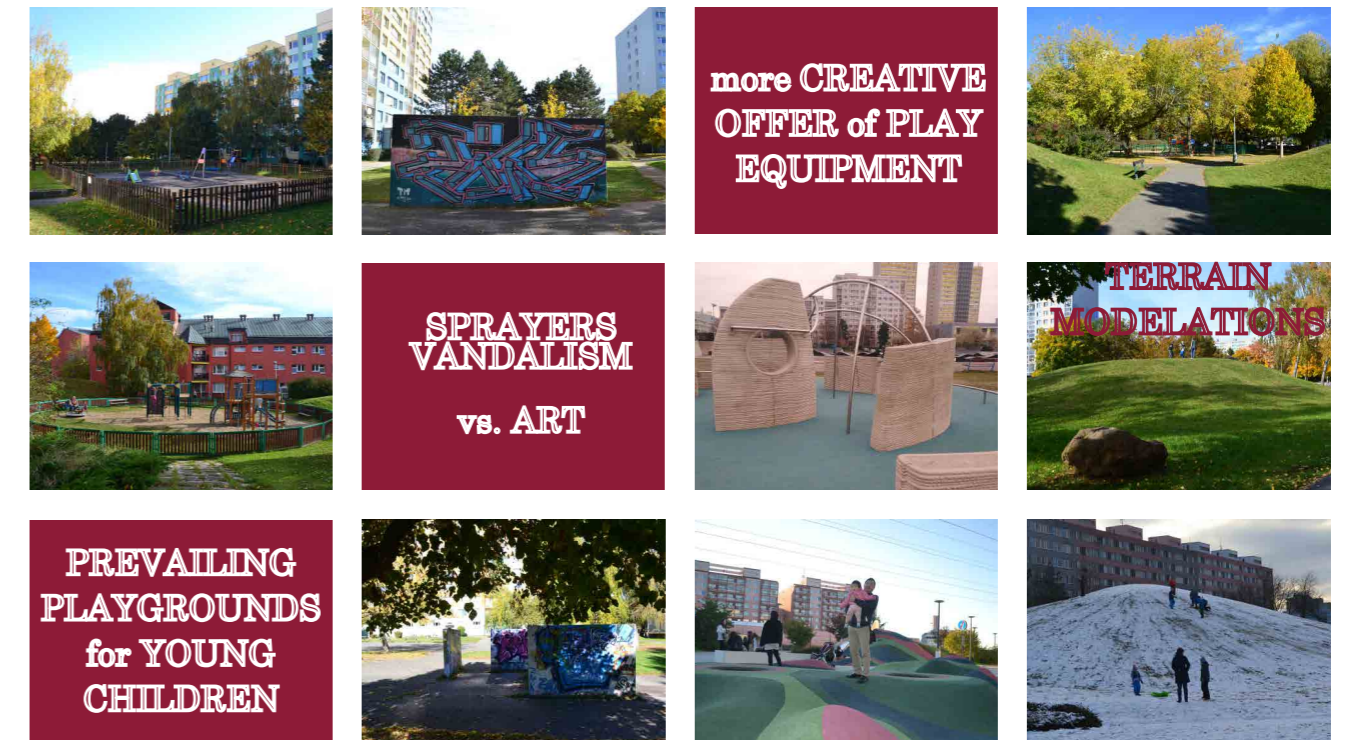


PLAYGROUNDS

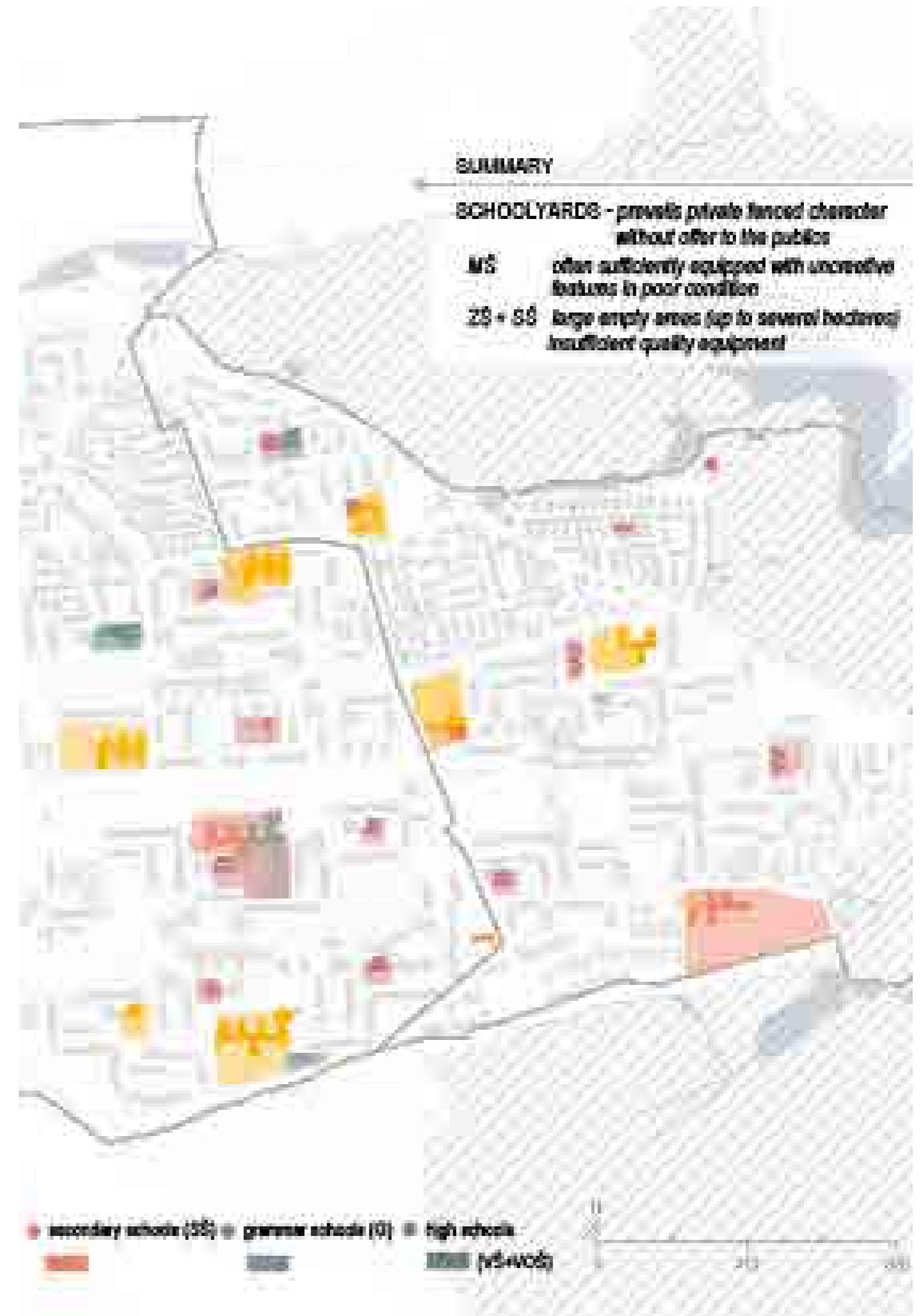
- > 72 playgrounds for 2-12 (14) years old children
- > 31 playgrounds for 15 > years old children
- > 45 sport fields

- > no concept of play equipment and vegetation
- > without deeper composition - placed „randomly“
- > more modern/creative play features offer
- > prevailing „playground in the enclosures“ with the typical feature: slides, swings, sandpits, spring rockers
- > terrain modelations
- > predominance of playgrounds for children under 8 years
- > more possibilities for older (workout, skate features)
- > sprayers vandalism
- > missing access to drink water
- > missing access to main sanitary facilities

CHARACTER os SOUTH TOWN I.



Schoolyards



Description of selected schools



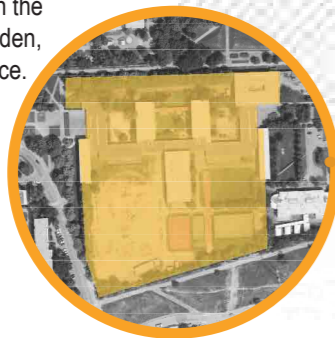
MŠ BLATÉNSKÁ

the fenced nursery school are located in close proximity to the building with a nursing service for the elderly. This 'L' shaped building encloses an unfenced public space. It is potential to link this area with the nursery by place generates seniors activities with a range of recreational facilities.



MŠ JAŽLOVICKÁ

the boundaries of the fenced area of the Jažlovická nursery are bordered on the eastern side by the community garden, which is connected to the town office. Potential to link all spaces by appropriate offer of activities and play elements.



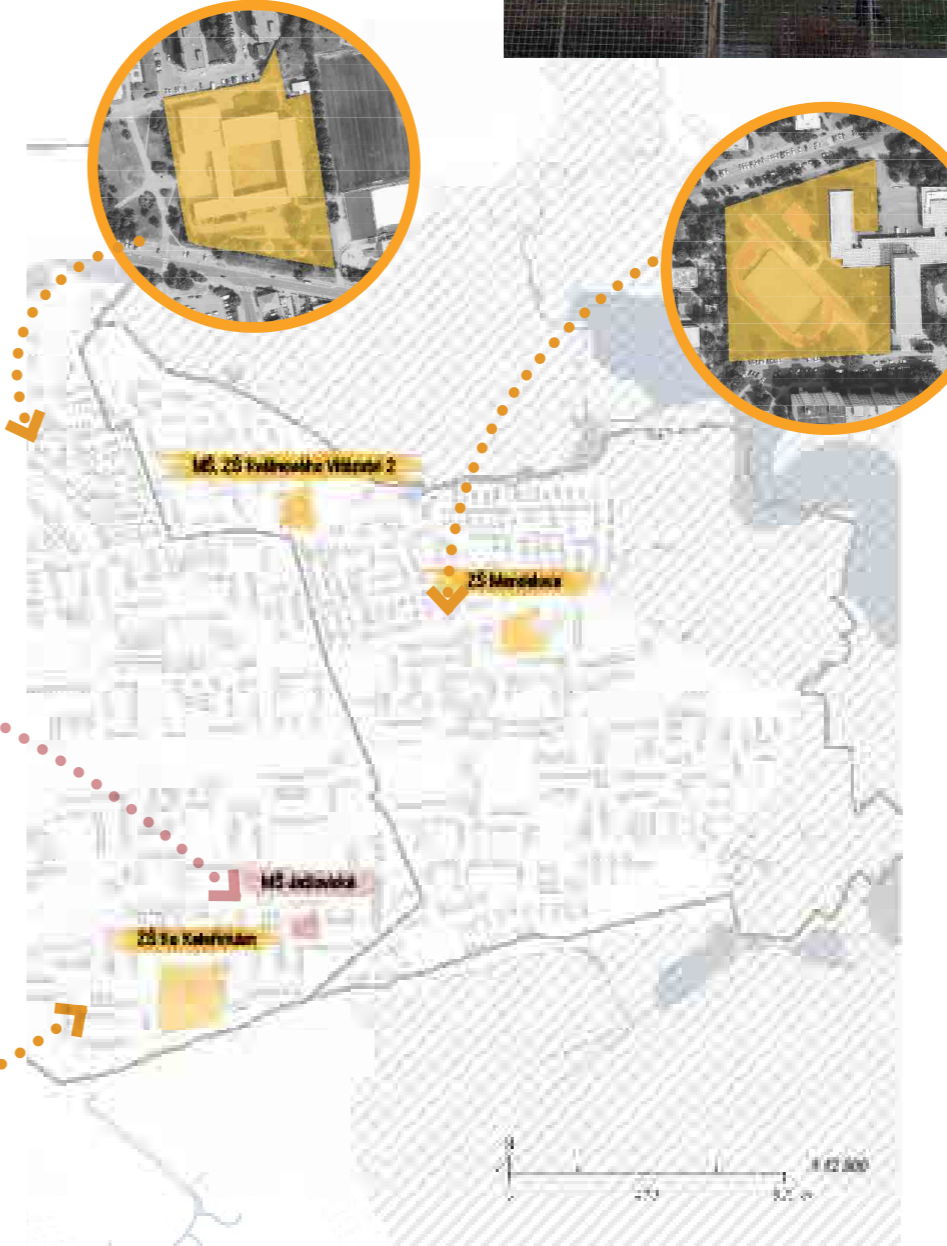
ZŠ KE KATEŘINKÁM

This primary school has a large unused forecourt, which is connected to the surrounding housing estate with a playground and nursery school. Currently under construction is a large space that will be used for ice sports and the general public.



ZŠ KVĚTNOVÉHO VÍTĚZSTVÍ 2 (K2)

the outdoor spaces do not offer primary school pupils a sufficient and brief range of leisure activities during break time. The public space in front of the school is unused and offers no added function apart from transport and areas of greenery. The materials of the elements are old. The school is adjacent to a housing estate with a playground for younger children.



ZŠ MENDELOVA

the spaces in the immediate vicinity of Mendelova Primary School are large and underused. They consist of sports areas supplemented by fruit greenery. The unfenced school forecourt is suitable for free movement on wheeled vehicles. There is a small fenced playground in close proximity.



PROPOSAL POTENTIALS

- enough greenery in backyards x less in frontyards
- greenery seems rigid, uncomposed, overcombined
- often a playground for younger children in their vicinity
- suitable walking materials in poor condition

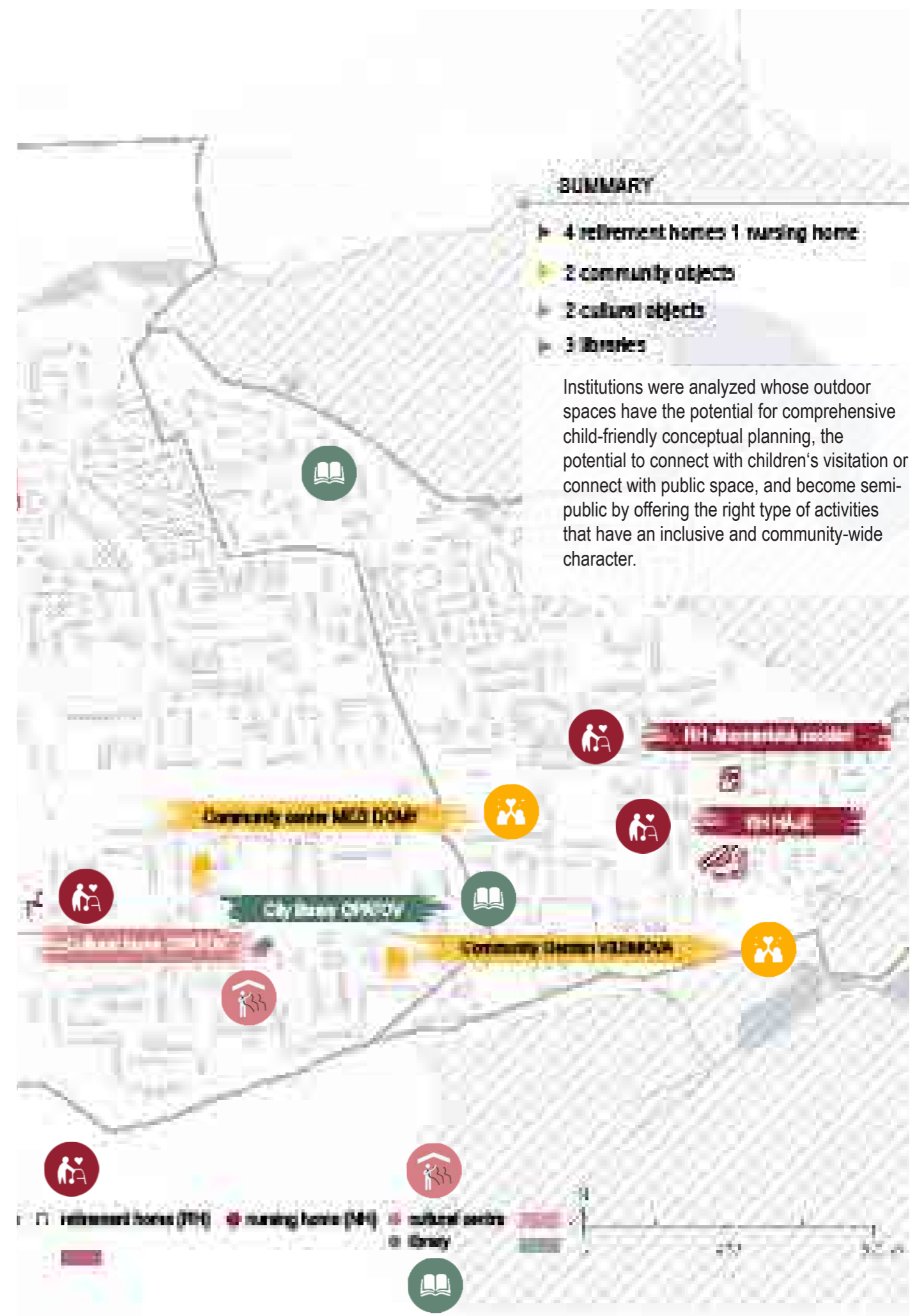
- > visibly organized front schoolyard with community character
- > standart equipment of back schoolyard - outdoor classrooms
- > „playable and safe mobility way to school“ - identifiable 'way finding'
- > offering spaces to neighboring residents
- > support new active and pasive recreation
- > connection with - community and cultural centers
 - leisure areas
 - retirement homes
- > one street in neighborhood „play along the way to school“



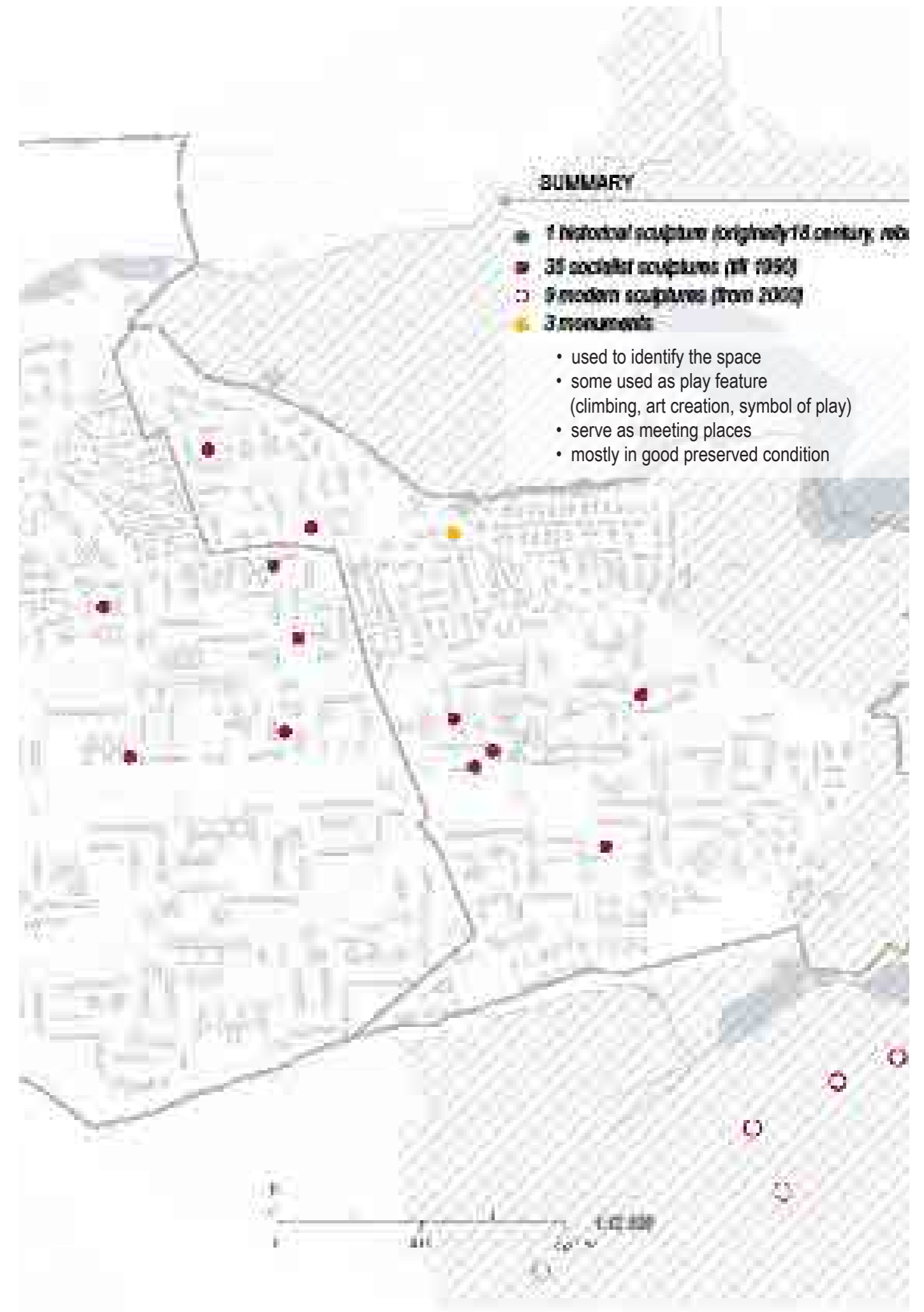
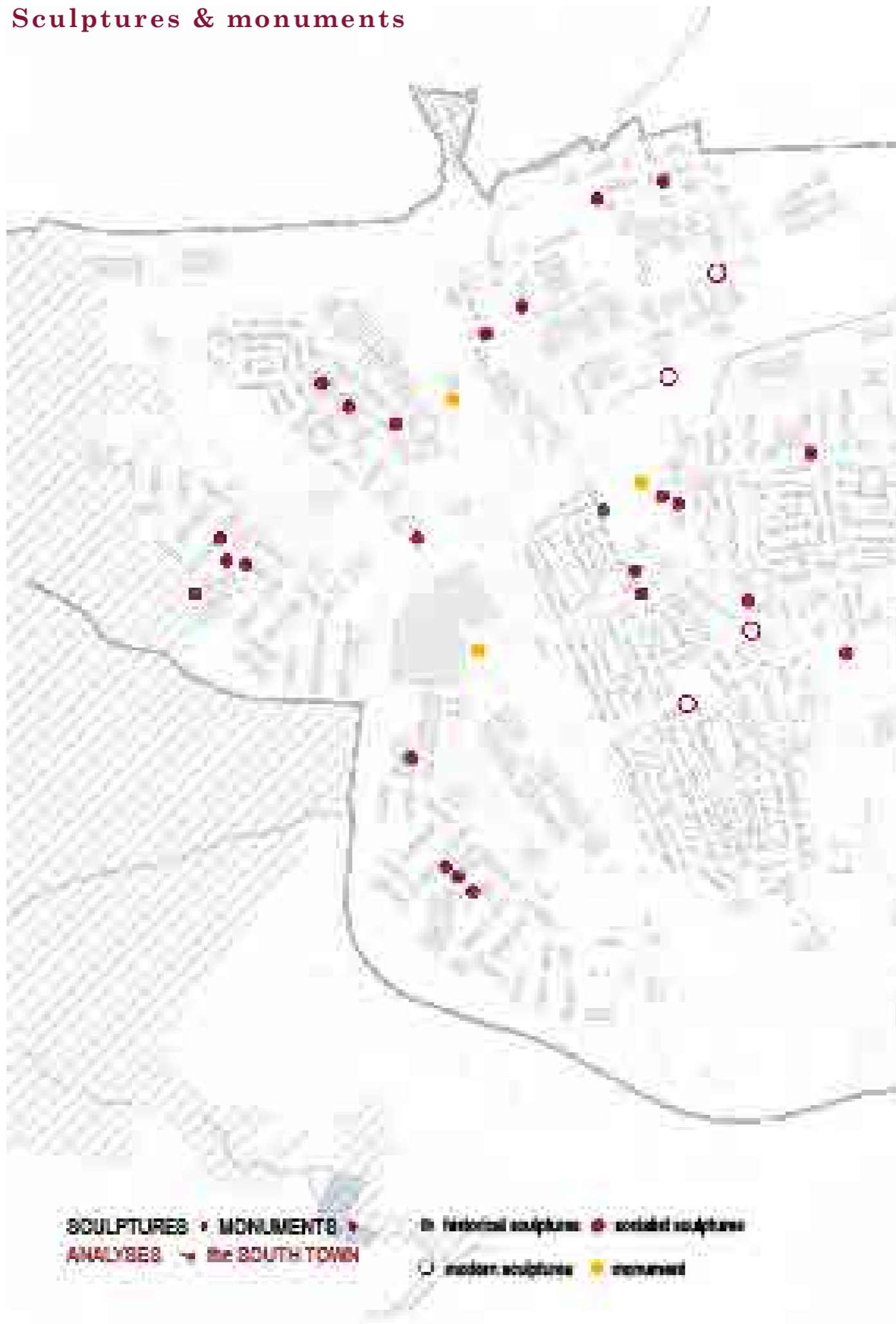
MŠ = nursery school
ZŠ = primary school

photos © author (2021-2022)
113

Institutional objects related to children



Sculptures & monuments





Sculpture Oskar / playground / street Kloboukova / based clay + concrete / Jaroslav Róna 1991 / © author



Sculpture 'Prase na procházce' / courtyard / street Babákova / stone + bronze / Čestmír Suška 1990 / © author



Sculpture Gemma / street / street Babická / Metal + laminate / Michal Trpák2020 © Umění pro město



Mikrosvět / public space near school / street Donovalská / marble / d'Ámbros Bernard 1985-88 © Umění pro město



Family / fountain / street Matúškova / public space near shop limestone / Růžička Lubomír 1985 © Umění pro město



Sova / public space near school / bronze + pink granite / Frýdecký Václav 1985 © mapy.cz



Sculpture Slunce / square / Pošepného square / limestone / Josef Vajce 1988 / © author



Nepolapitelná / square / Pošepného nám. / concrete + stainless steel + laminate / Rittstein Lukáš 2001/ © Umění pro město



Kvetoucí země / square / Jírovcovo square / stone + bronze / Vajce Josef 1985 / © Umění pro město



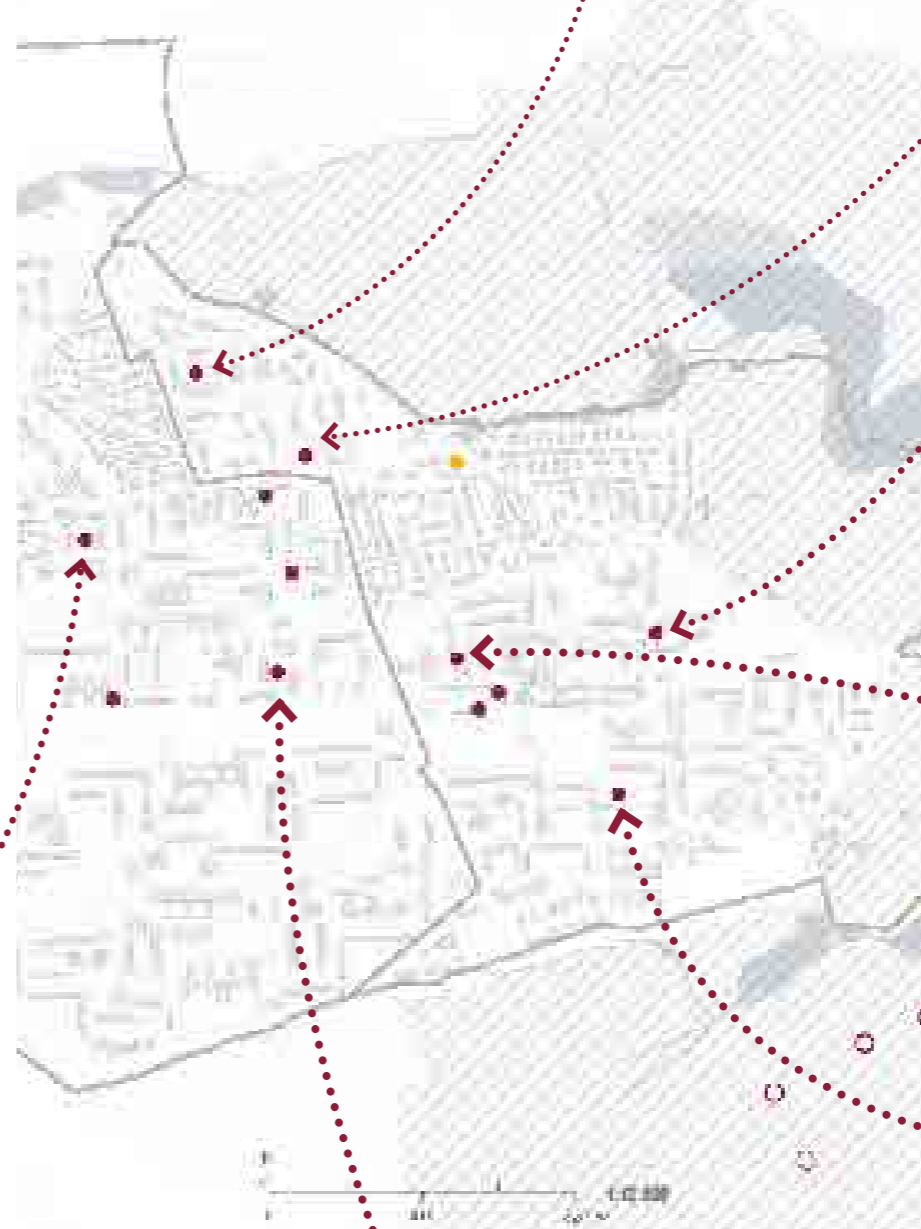
Socha Země / square / Jírovcovo square / trachyte / Jiří Kryštůfek 1986 / © Umění pro město



Rodina / nursery school / street V Benátkách / Glazovaná glazed ceramics / Kroupová Alena 1985 / © Umění pro město



Rodina / near street Machkova, Ženiškova / ceramics / Antonín Bartoš 1987 / © Ladislav Černý



Delfini / small park in housing estate / street Kropáčkova / bronze / Ladislav Kovařík 1986 © Umění pro město



Ceramics sculpture / public space by Pragues Twins / street Kupeckého / Mirová Dávana 1986 / © mapy.cz



Květ - sundial / park / street Ocelíkova / metal / Janoušek Vladimír 1979 © Umění pro město



Stone sculpture / by playground / street Michnova / Jan Hendrych cca 1980 / © author

Materials: metal (bronze, steel, stainless steel)
stone (limestone, trachyte, pink granite, marble)
concrete, ceramics

PROPOSAL > leaving the sculptures - a historical feature of the space
POTENTIALS > cultivation of the surrounding environment
> „materials typical of the area as an inspiration“

During the normalization period 4% of the total budget for new construction (housing estates, polyclinics, shopping centers...) was set aside by law for sculptures (URL1, 2023)

Resources

INTERNET

LOCALIZATION

Poloha a rozloha Prahy 11 [online]. Praha: Úřad MČ Praha 11, 2008 [cit. 2023-04-25]. Dostupné z: <https://www.praha11.cz/cs/praha-11-v-kostce/poloha-a-rozloha-prahy-11.html>

Jižní Město. In: Wikipedia: the free encyclopedia [online]. San Francisco (CA): Wikimedia Foundation, 2001- [cit. 2023-04-25]. Dostupné z: https://cs.wikipedia.org/wiki/Ji%C5%BEn%C3%AD_M%C4%9Bsto

SCULPTURES and MONUMENTS

URL1/ VETŘELCI A VOLAVKY [online]. Praha: onkubator, 2023 [cit. 2023-04-24]. Dostupné z: <https://www.vetrelciavolavky.cz/>

CHILD FRIENDLY SOUTH TOWN



CHILD FRIENDLY SOUTH TOWN
integration of play into the public spaces



THEORETICALLY - ANALYTICAL PART

PETRA PCHÁLKOVÁ

Master thesis

ATELIER REHWALDT

2021 / 2023



Faculty of Architecture
Department of Landscape architecture
Czech Technical University in Prague



Master thesis assignment

České vysoké učení technické v Praze, Fakulta architektury

2/ ZADÁNÍ diplomové práce

Mgr. program navazující

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vedoucí diplomové práce:	Dipl. Ing. TILL REHWALDT
téma diplomové práce:	JIŽNÍ MĚSTO PŘÁTELSKÉ K DĚTEM <i>Integrace hry do veřejného prostoru</i>
	CHILD FRIENDLY SOUTHTOWN <i>Integration of play into the public spaces</i>

zadání diplomové práce

1/ popis zadání projektu a očekávaného cíle řešení

description of the project assignment and the goal of the project

Diplomová práce se zaměřuje na rehabilitaci sídlištních prostranství určených k dětské rekreaci na území Jižního Města. Cílem je vytvořit krajinářsko-urbanistické návrhové řešení pro vybranou, urbaně ucelenou oblast, které posílí současné hodnoty místa a zároveň přinese hodnoty nové. Snahou řešení je zvýšení nabídky prostorů pro rekreaci a hru nejen mladé generaci, ale i ostatním zájmovým skupinám. To vše přístupy ekologickými a udržitelnými, reagující na současné a budoucí potřeby a zájmy společnosti.

The diploma thesis focuses on the rehabilitation of housing estates spaces intended for children's recreation in the territory of the South Town. The goal is to create a landscape-urban design solution for a selected, urban integrated area, which will strengthen the current values of the place as the same time bring new values. The aim of the solution is to increase the offer of spaces for recreation and play not only for the young generation, but also for other interest groups. All this with ecological and sustainable approaches, responding to current and future needs and interests of society.

2/ obsah content

1. část	TEORETICKO – ANALYTICKÁ
2. část	NÁVRHOVÁ
1. Part	THEORETICALLY - ANALYTICAL
2. Part	PROPOSAL

3/ popis závěrečného výsledku, výstupy a měřítka zpracování
description of the results, outputs and scale

Celkový závěrečný výstup bude mít podobu dvou zpracovaných hlavních částí.

Výsledek teoreticko – analytické části je teoreticky přehled základních oblastí vztahujících se k tématu práce. Tato část přechází od obecných teoretických souvislostí týkajících se tématicky *děti, hry, měst, plánování a hrát*, až k samotnému studovanému území – Jižnímu Městu. Výsledky studování Jižního Města samotného, mají podobu analýz shrnuté v poslední kapitole této části.

Výsledkem návrhové části je celková návrhová situace (1:2500) vybraného komplexního území a návrhová situace konkrétního prostoru (1:500). Dále to budou koncepční i návrhová schémata, axonometrie, vizualizace a řezy. Závěrečná podoba dílčích výstupů a jejich měřítka budou během semestru upřesněny a odsouhlaseny vedoucím diplomové práce.

The overall final output will take the form of two elaborated main parts.

The result of the theoretically - analytical part is a theoretical overview of the basic areas related to the topic of the thesis. This part moves from the general theoretical context concerning the themes of children, play, cities, planning and playgrounds, to the study area itself - South Town. The results of studying the South Town itself, take the form of the analyses summarized in the last chapter of this section.

The proposal part results in an overall design situation (1:2500) of the selected complex area and a design situation of the specific area (1:500). Furthermore, it will be conceptual and design diagrams, axonometries, visualisations and sections. The final form of the sub-outputs and their scales will be refined and agreed by the thesis supervisor during the semester.

4/ seznam dalších dohodnutých částí projektu (model)
list of other agreed parts of the project

PORTFOLIO A4 / 2x
POSTER A1 / 4x
FYZICKÝ MODEL NÁVRHU / 1x
CD VÝSTUPY / 2x

PORTFOLIO A4 / 2x
POSTER A1 / 4x
PHYSICAL MODEL OF THE AREA / 1x
CD OUTPUTS / 2x

Datum a podpis studenta
Date and student's signature

Šušter
2.3.2023

Datum a podpis vedoucího DP
Date and thesis supervisor's signature

2.3.2023 *[Signature]*

Datum a podpis děkana FA ČVUT
Date and dean's signature

[Signature]

registrováno studijním oddělením dne

3.3.2023
[Signature]

ČESKÉ VYSOKÉ UČENÍ TECHNICKÉ V PRAZE
FAKULTA ARCHITEKTURY

AUTOR, DIPLOMANT: Bc. PETRA PCHÁLKOVÁ
AR 2022/2023, LS

NÁZEV DIPLOMOVÉ PRÁCE:
(ČJ) JIŽNÍ MĚSTO PŘÁTELSKÉ K DĚTEM
Integrace hry do veřejného prostoru

(AJ) CHILD FRIENDLY SOUTH TOWN
Integration of play into the public space

JAZYK PRÁCE: ANGLICKÝ JAZYK

Vedoucí práce:	Dipl. Ing. Till Rehwaldt	Ústav: 15120 Ústav krajinářské architektury
Oponent práce:	Ing. Radka Matoušková	
Klíčová slova (česká):	Jižní Město / sídliště / děti / hra / městské plánování přátelské k dětem / strategie plánování přátelské k dětem / veřejný prostor / sociální integrace / živé město	
Anotace (česká):	<p>Diplomová práce se představuje stanovené přístupy městského plánování přátelské k dětem implementované na území nejrozsáhlejšího sídliště České republiky – Jižního Města. Přístupy jsou zakotveny v navržené strategii plánování přátelské k dětem, která reaguje na potřeby dětí i dospělých, na současné fungující zahraniční přístupy plánování a na charakter studovaného pražského Jižního Města.</p> <p>Práce mimo jiné otevírá téma aktuálního významu nabídky kreativního a nesegregovaného prostoru pro trávení volného času dětí ve veřejném prostoru, pro kterou má Jižní Město jedinečný potenciál. Touto prací je představeno plánování a navrhování vhodné pro děti, mající ve výsledku pozitivní dopad na všechny obyvatele území, setkávajících se v udržitelných, živých a radostných veřejných prostorech.</p>	
Anotace (anglická):	<p>The Master thesis presents the established approaches of child-friendly urban planning implemented on the territory of the largest housing estate in the Czech Republic - Jižní Město. The approaches are anchored in a proposed Childfriendly Strategy that responds to the needs of children and adults, to current international planning approaches in operation and to the character of the Prague South Town under study.</p> <p>Among other things, the thesis raises the issue of the current importance of offering creative and non-segregated space for children's leisure time in public space, for which the South Town has a unique potential. Through this work, planning suitable for children is presented, resulting in a positive impact on all inhabitants of the area, meeting in sustainable, lively and joyful public spaces.</p>	

Prohlášení autora

Prohlašuji, že jsem předloženou diplomovou prací vypracoval samostatně a že jsem uvedl veškeré použité informační zdroje v souladu s „Metodickým pokynem o etické přípravě vysokoškolských závěrečných prací.“

V Praze dne 19.5. 2023

podpis autora-diplomanta



Tento dokument je nedílnou a povinnou součástí diplomové práce / portfolia a CD.

*“If children are not
designed into our cities,
they are designed out.
This means that they are
deprived of contact with
the material world, with
nature, with civic life and
with their own capacities”*

01 Introduction

TOPIC
METHODOLOGY
GOAL

02 Parameters

CHILDFRIENDLY PARAMETERS
SPATIAL PARAMETERS of the SOUTH TOWN
SPATIAL PARAMETERS of the SOUTH TOWN / METROPOLITAN PLAN'S ZONE

03 Proposal

CHILDFRIENDLY STRATEGY

...implementation of childfriendly parameters into the spatial matrix of the southern city

CHILDFRIENDLY SOUTH TOWN

STUDY AREA
ANALYTICAL OVERWIEV
CONCEPT of STUDY AREA
PROPOSAL SITUATION 1:2500
PROSPOSAL ZONING

NEIGHBOURHOOD

ANALYTICAL OVERWIEV
SWOT ANALYSIS
CONCEPT of ZONES

PLAYABLE STREET

ANALYTICAL OVERWIEV
CONCEPT
PROPOSAL SITUATION 1:500
VIZUALIZATION

04 Ending

SUMMARY_AUTHOR'S EPILOGUE
RESOURCES

01

Introduction

Topic

The thesis opens the topic of the current importance of offering creative and non-segregated leisure space for children in public spaces in a selected area of a Czech housing estate.

Specifically, the area of Jižní Město (more just South Town) is examined. This large housing estate with approximately 66,200 inhabitants was established in the 1980s on a green field, in the territory of today's Prague districts of Chodov and Háje (Prague 11). It is described as the largest housing estate in the Czech Republic.

Approximately 10 000 children (up to 15 years of age) live in this area today and have the opportunity to play mainly in fenced playgrounds (with opening hours) designed primarily for young children, even though the large public space full of greenery is a great potential for recreation and play connecting residents of all generations. After analysing the area, a number of barriers to achieving the stated objective emerge. The main proposal throughout the thesis works with these problems, highlighting the potential of the site. The work is thus an inspiration for other housing estates with similar character as the South Town.

Methodology

The master thesis consists of two main parts:

THEORETICALLY - ANALYTICAL PART

PROPOSAL PART

PROPOSAL PART

Based on the *theoretical overview* and *analyses* **eight CHILDFRIENDLY PARAMETERS** were identified and described as a response to the character of South Town and contemporary child-friendly approaches in urban planning. Furthermore, the **SPATIAL PARAMETERS of SOUTH TOWN** were derived, shaping its typical spatial structure that children pass through or stay in for long/short periods of time.

By establishing the both parameters a **CHILDFRIENDLY STRATEGY** was created.

Strategy is based on the implementation of **child-friendly parameters** in the **spatial zones of the South Town**. The strategy serves as a basic pillar for the design of a child-friendly urban environment at the conceptual level of the South Town.

Is proposed **CONCEPT AREA** at the level of the main selected areas of South Town - **NEIGHBOURHOOD, PARK, METRO STATION and MAIN STREET** connecting the whole area in the Háje cadastral area in coherent infrastructure. The conceptual design has form of conceptual zoning, where each zone is specified according to the fulfilling childfriendly parameters presented on main situation in scale 1: 2500.

The **DESIGN AREA** of the whole work is focused on the street in the conceptual area **NEIGHBOURHOOD** named '**Háje north**'. The design area is called **PLAYABLE STREET** because proposal brings new child-friendly approach into typically problematic area of the entire South Town - a *street* mainly affected by traffic barriers. The playable street represents module example of public space integrated by play to become friendly to children and all residents on main situation in scale 1: 500.

1.goal

South town friendly to CHILDREN

*„With a focus on the needs of children, we need to think and plan for the city beyond playgrounds, towards a comprehensive infrastructure for children and young people“. **



2.goal

South town friendly to EVERYONE

*„Children are a reliable indicator: if we can build a successful one a city for children, we will have a successful city for all people.“***



Tool

Integration of play into the public space

*„People come where people are“. People are spontaneously inspired and attracted by the activity and presence of other people. A children's game, for example, can quickly attract other participants. A similar approach can be taken when working with adult activities. Children see other children playing outside from the window and rush to join them.****



Goal

The intention of the work is to fulfil *two goals* based on the *conceptual ideas*. The originators of these idea are the Czech architect *Mirjana Petrik*, the Mayor of Bogotá *Enrique Penalosa* and the Danish architect *Jan Gehl*.

1.goal is to create South Town **FRIENDLY** to **CHILDREN** and thus **FRIENDLY** to **ALL** inhabitants as the *2.goal*.

INTEGRATION of PLAY into the **PUBLIC SPACE** is considered in this work as the main *tool* to make the city friendly to CHILDREN, adult and disabled - friendly to ALL.

Main goal is to fulfill the these *two goals* and *tool* on the bases of established **CHILDFRIENDLY STRATEGY** that will lead to a conceptual and design study of a specific area typical for the South Town.

-
- * Mirjana Petrik (C1 Petrik,2019)
Czech architect (CTU in Prague)
Professional design of Childfriendly cities
 - ** Enrique Penalosa (URL1, 2017)
Mayor of Bogota in Colombia
 - *** Jan Gehl (B1 Gehl, 2012)
Danish architect

02

Parameters

CHILD FRIENDLY CITY PARAMETRES

1. MOBILITY



I can move fast and safe!

2. PLAYABILITY



I can play spontaneously!

3. CONTACT with NATURE 4. CHILDREN SCALE



I am close to the nature!



I am in space close to my proportions!

5. SOCIAL CONNECTEDNESS

6. WAYFINDING

7. OWNERSHIP and CARE 8. DECISION MAKING



I am close to the others!



I can orientate in space!



I have something to care about!



I can say what I want to here!

Established parameters are the main reaction on conclusions of the theoretical-analytical part. They serve as basic strategic pillars for the design of childfriendly urban environments at the conceptual level. The extent and scope of their application depends on the character of the space in question, which must be based on the analysis and its individual needs, limits and potentials. The degree and extent of specific needed childfriendly interventions fulfilling a given parameter can then be evaluated.

1. MOBILITY

= barrier free movement and stay

Freedom of children to travel and stop around in their neighbourhood or city. Children choose the type, speed, direction and destination of their travel with adults either absent or following rather than leading them.

The supervision of parents should be non-directive:

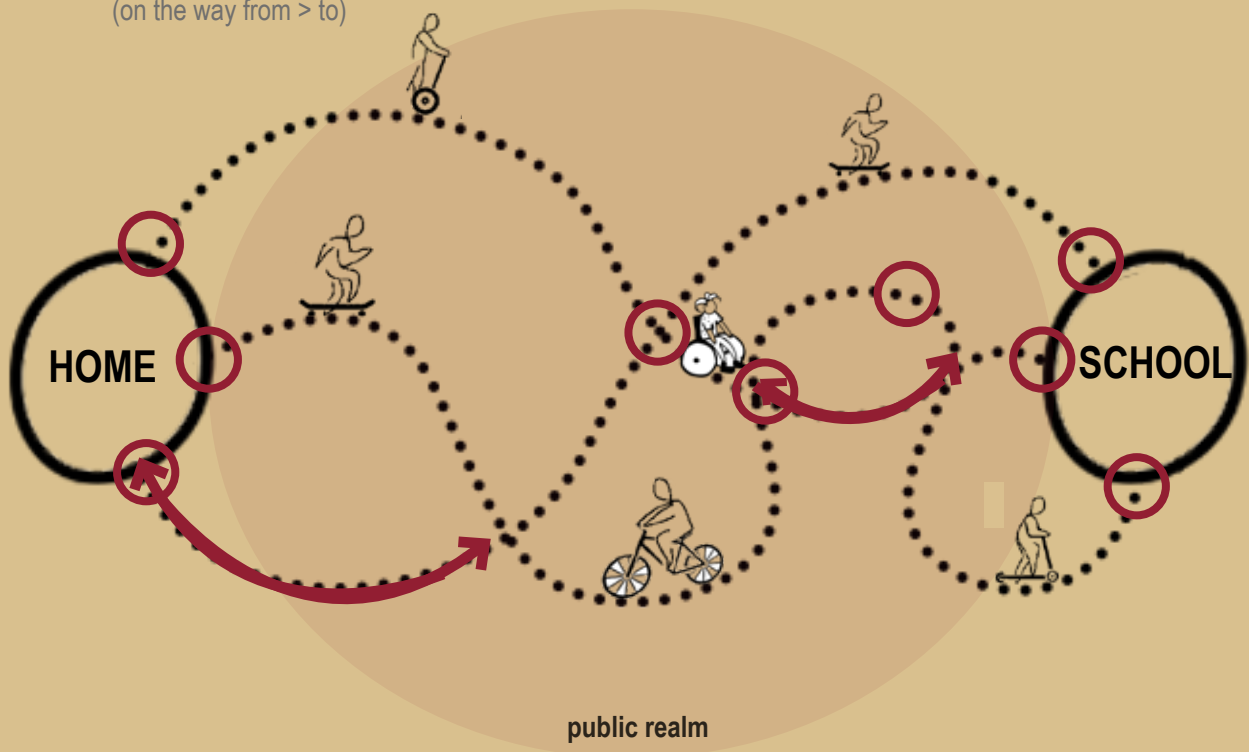
„Parent following half a block behind a child running ahead, with the child choosing the route and pace“ (A1, 2018).

I can move fast and safe!



PLAYABILITY DIAGRAM

(on the way from > to)



FINAL DESTINATION
(home / school / bus / subway / park) ○

CONNECTIVITY
PROXIMITY ↪
PERMEABILITY ○

ACCESIBILITY
○ ○ ○ ○ ○ ○ ○

City environments promote independent mobility:

Creation of *child-friendly travel routes* encourage children to explore the city more independently and to get involved in urban life.

Specific interventions:

To achieve childfriendly mobility, four interventions approaches with regard to childfriendly planning have been identified:

- 1 / CONNECTIVITY
- 2/ PROXIMITY
- 3/ PERMEABILITY
- 3/ ACCESSIBILITY

CONNECTIVITY ●●●●●●

- Planning for a comprehensive connected city infrastructure that is safe for to stay and move around
- If wide of street allows - planning clear street hierarchy of the divided road network with requirements of proximity - permeability - accessibility for:
cars - pedestrians - green space - bicycle (other rolls transport) - playable street - frontgardens
- Main traffic features of developing safe connectivity
deceleration belts / crossings / underpasses / bridges
- with art design and lights on specific spaces (school / frequented dangerous places)

Specific planning interventions to contribute improving safety:

- Speed reduction measures + no-through traffic zones
- Placing amenities in strategic locations makes the street socially safe and therefore safer for independent passage
- To create a child-friendly street network in every neighbourhood, it is essential that at least one side of every street has a pavement at least 3 m wide (URL2, 2017).

PROXIMITY

Suitable proximity depends on well and safely planned connectivity of the main target locations. Depending on age, children may then be able to move and play on their own at some distance from home (see research review on next page).

PERMEABILITY

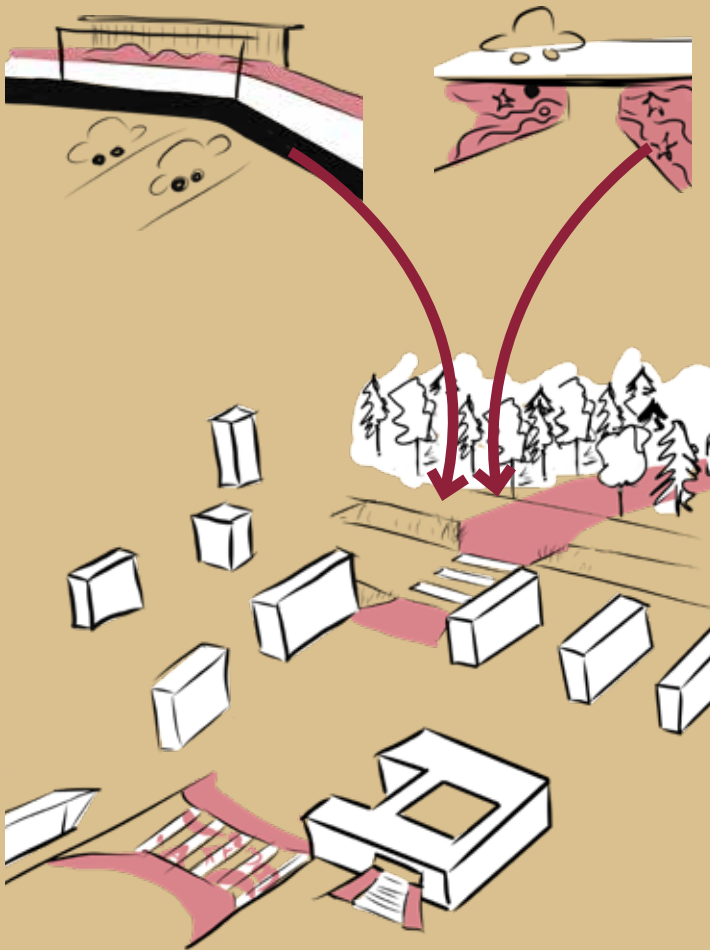
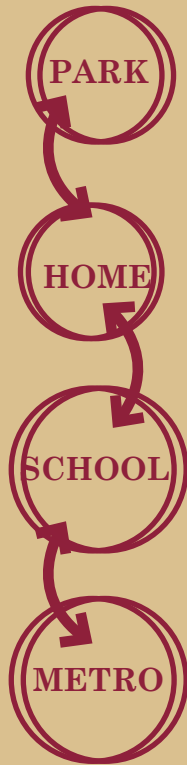
The area is permeable to all with no barriers in the way. Planning with regard to the necessary dimensions for safe passage and access to buildings (see requirements on next page).

ACCESSIBILITY



Depending on how they will be used, different surface properties are required for paths and other throughfares to be accessible (see requirements on next page).

CONNECTIVITY



PROXIMITY

For children under 8 years old, the immediate environment is particularly important as they cannot identify traffic hazards in advance. Extended play opportunities are desirable in playgrounds where children can go under supervision.



Because of their lack of transport skills, but also because of their limited social skills, children under age 4 cannot play outdoors unaccompanied. From approximately 4-5 years of age, they can play outdoors in quiet streets on sidewalks with supervision from home. More extensive play opportunities are desirable in playgrounds near homes where children can go with supervision.



From approximately 8 to 11 years of age, children can move freely and independently in 30km zones.

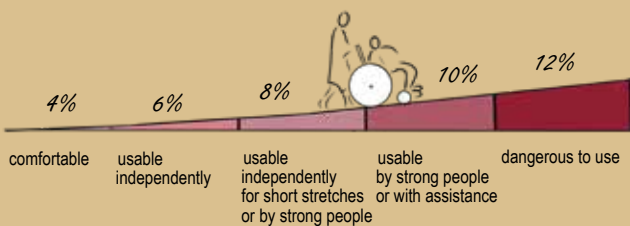
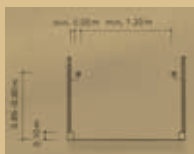


From approximately 11-13 years of age, children can independently cross 50 km roads using crosswalks/stops.



From approximately 13 years of age, children can cross 80km roads independently with the help of crosswalks/ traffic lights.

PERMEABILITY



(Zimmermann, 2015)

ACCESSIBILITY

WALKWAY



SUITABLE SURFACING MATERIAL

water bound pavements, unit stone, concrete, fired brick, natural stone, concrete slabs with rough finish, cast-in-place concrete, asphalt, syntetic surfacing, wood decking

WHEELCHAIR



tightly jointed brick, concrete, or natural stone paving blocks, natural stone, concrete slabs with rough finish, cast-in-place concrete, asphalt, hard - wearing synthetic surfacing

BLIND PEOPLE



water bound pavements, tightly jointed brick, natural stone, concrete slabs with rough finish, cast-in-place concrete, asphalt, hard - wearing synthetic surfacing

BABY CARRIAGES



water-bound pavements, tightly jointed slabs and unit pavers or natural stone, brick, or concrete, cast-in-place concrete, asphalt, hard-wearing synthetic surfacing

INLINE SKATERS



(fine-grained) asphalt

BIKEWAY



asphalt, concrete unit pavers and slabs with a rough finish (higher rolling resistance than asphalt), cast-in-place concrete

RIDING PATHS



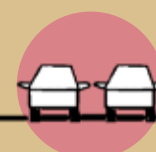
sand, organic materials (wood chips), vegetated surfaces/turf, in riding arenas also synthetic surfaces, sand mixtures

MOTOR VEHICLES



cast-in-place concrete, asphalt

PARKING SPACES



concrete, asphalt, precast concrete unit pavers, interlocking concrete pavers, sett paving

EMERGENCY VEHICLES



crushed aggregate lawn, grass paving blocks, unit pavers of natural stone, brick, precast oncrete, asphalt, cast-in-place concrete

(Zimmermann, 2015)

2. PLAYABILITY

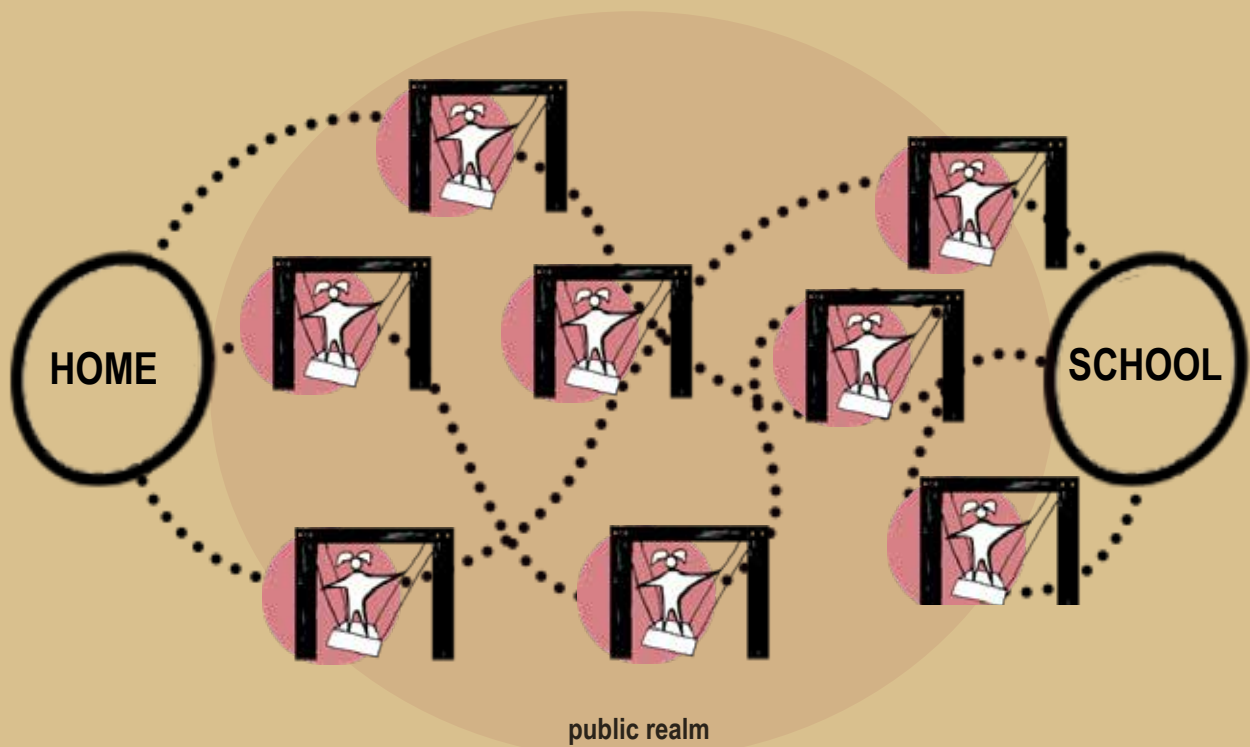
= *independent possibility to play*

Play is its voluntary, spontaneous activity and free self-assertion (B2, 2003). Children need to experience choice and autonomy, they need their time to be less organised and allow for more free play (A4, 2020).

I can play spontaneously!



PLAYABILITY DIAGRAM



City environments promote spontaneous play by:

The aim of designing play spaces is to offer children an environment in which they can experience a wide range of different types of play, environments and experiences. It is also essential to include acceptable risk and allow children to push their boundaries and expand their horizons.

Specific interventions:

- 1/ include range of types of play in coherent urban space
- 2/ base the design on the needs of individuals according to age categories
- 3/ designing formal = organized play spaces due to wishes of residents of neighbourhood (city) and local wider space connection
- 4/ using technical norms as inspiration
support free play and acceptable risk in playspaces

PLAY TYPOLOGY

1. PHYSICAL 2. EXPLORATORY 3. IMAGINATIVE 4. with RULES 5. BIOPLAY 6. EXPRESSIVE 7. RESTORATIVE 8. DIGITAL



- Motor
- Fine
- Vestibular
- Rough and tumble



- Sensory
- Active
- Constructive



- Symbolic
- Socio-dramatic
- Fantasy



- Organic
- Conventional
- Informal



- Plants
- Wildlife
- Care



- Performance
- Artistic
- Language
- Conversation



- Resting
- Retreat
- Reading
- Onlooking



- Performance
- Artistic
- Language
- Conversation

CHILDREN NEEDS

NEEDS of ALL PUBLIC SPACE USE

AGE CATEGORY

PHYSICAL ELEMENTS

NATURAL ENVIRONMENT TERRAIN SPATIAL ELEMENTS

NATURAL and STRUCTURAL MATERIALS

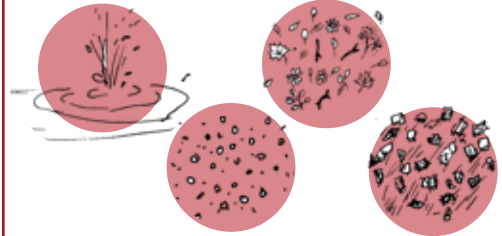
0-2
Newborn baby
Infant
Toddler



- Space for free and safe movement of the little ones
- Lawn, trees, water feature



- Diverse materials and natural elements
sand, water, stones, wood, mud...



3-6
Preschooler

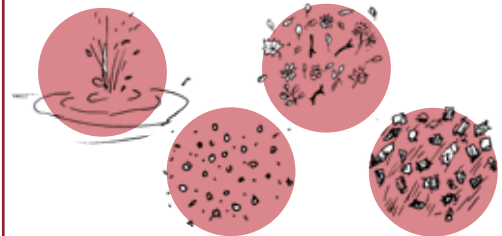


- Space for free and safe movement of children, sufficiently large paved area:
- moving on a bike, playing with a ball, drawing with chalk, etc.
- slope or hill:
- running, barrel rolling, sliding, sliding in winter

- Lawn, trees, water feature, natural vegetation features



- Variety of materials, free building materials - free natural elements stones, pebbles, sticks, leaves,...



7-12
Schoolchild older

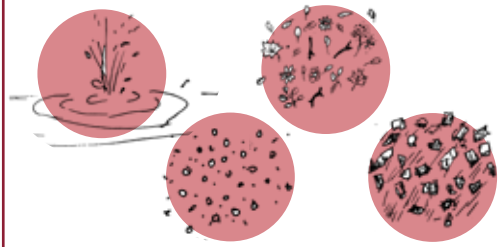


- Space for free and safe movement of children, sufficiently large paved area:
- moving on a bike, playing with a ball, drawing with chalk, etc.
- slope or hill:
- running, barrel rolling, sliding, sliding in winter

- Lawn, trees, water feature, natural vegetation features



- Variety of materials, free building materials, free natural elements - stones, pebbles, sticks, leaves,...



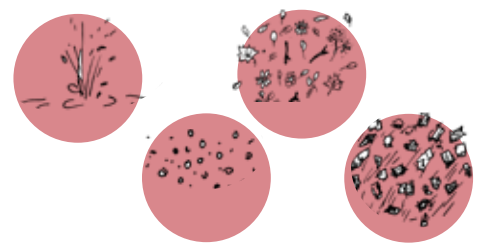
13-16
Teenager



- Paved and grassy living areas allowing variable use (games, picnics, etc.)
- Water feature, trees, close to nature vegetation elements



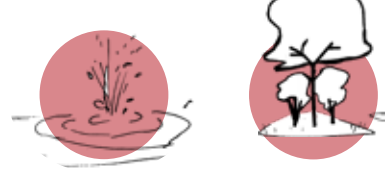
- Materials for variable use



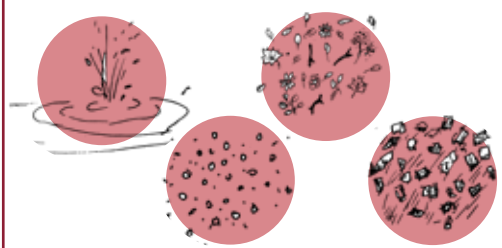
17-100
Adolescent



- Paved and grassy living areas allowing variable use (games, picnics, etc.)
- Water feature, trees, close to nature vegetation elements



- Functional and aesthetic materials
- Vegetation elements, art in public space














ERS in RELATION to ENVIRONMENT

of the ENVIRONMENT

MOBILIAR

SPECIAL ELEMENTS - IDENTIFICATION with PLACE

<ul style="list-style-type: none"> • Seats, tables 	<ul style="list-style-type: none"> • Integration of elements for different age groups of children • Facilities for parents, services, café or shop within walking distance, community centre, clubhouse • Elements to create shade in the summer months (tarpaulins, pergolas,...) 
<ul style="list-style-type: none"> • Seats, tables, furnishings allowing variable use, inspiring play  	<ul style="list-style-type: none"> • For children, elements stimulating play on something, elements or trees suitable for climbing, elements developing motor skills, logical thinking and imagination of the child, learning through play • Little houses or other „our own place“ • For adults, café or shop within walking distance, community centre, clubhouse • Elements to create shade in the summer months (tarpaulins, pergolas,...) 
<ul style="list-style-type: none"> • Furnishings allowing variable use, inspiring play 	<ul style="list-style-type: none"> • Elements stimulating play on something, elements or trees suitable for climbing, elements developing motor skills, logical thinking and imagination of the child, learning through play • Interactive elements in public spaces. space (such as surface mosaics, street art, artworks,...) • Roofing in case of bad weather, elements to create shade in the summer months (tarpaulins, pergolas,...) • Community Centre as „our own little place“ • Possibility to walk the dog 
<ul style="list-style-type: none"> • Mobility allowing variable use 	<ul style="list-style-type: none"> • Places to meet peers, express creativity, freedom • Elements aimed at use by teenagers • Interactive elements in public spaces. space (such as surface mosaics, street art, artworks,...) • Rental of sports and other equipment for active leisure • Offer of services, cultural events • Roofing in case of bad weather, elements to create shade in the summer months (tarpaulins, pergolas,...) • Possibility to walk the dog 
<ul style="list-style-type: none"> • Seats, tables, lighting 	<ul style="list-style-type: none"> • Services and other destinations within easy reach • Cultural and small local events • Rental of sports and other equipment for active leisure • Space for personification by local inhabitants • Possibility to walk the dog 

(inspired by C1 Petrik, 2019)

3. CONTACT with NATURE

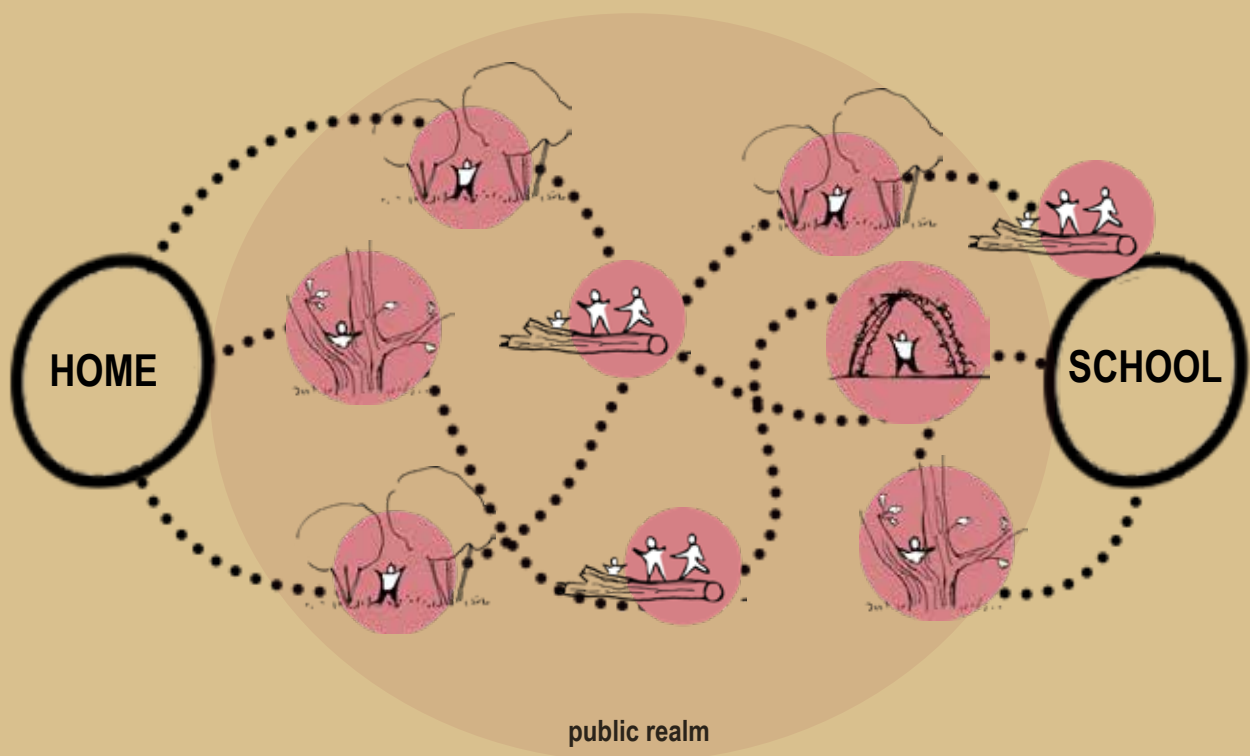
= barrier free movement and stay

Child is allowed direct contact with nature and its elements. Natural green spaces and their forms naturally encourage creative play and discovery for both children and adults (B3, 1998).

I am close to the nature!



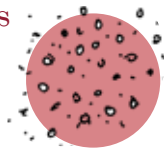
CLOSE to NATURE DIAGRAM



City environments promote contact with nature:

Children are in daily contact with the natural elements, materials and species.

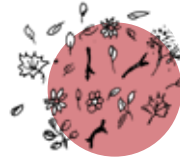
Natural materials



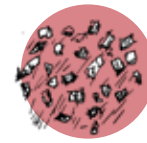
stones / gravel / sand/ mud



water



fruits / flowers / leaves



bark

Plants and animals



woody plants



multistem trees (1-3 m)



herbs



natural features
(gates, bunkers)



contact or observation
of animals

Specific intervention:

Composite design of vegetation elements of suitable plant species, taking into account the type of space and age and thus the proportions of the users. (see next page and chapter *Designing vegetation & Particularly well-suited woody plants and herbs* from theoretically-analytical part)

Conditions for green play areas within public spaces:

- designing trees with seasonal variability - flowers, fruits and leaf colour
- designing trees suitable for climbing - small multistem trees resistant to damage up to 3 m height
grassy areas and green play areas with trees for climbing rather than prickly shrubs and bushes
- natural material from trees proposed for removal to be used within natural areas - stumps, trunks
- designing natural water features in conjunction with rainwater management - opportunities for close interaction with natural elements and materials - fruits, flowers, seeds, leaves, branches, wood, stone, gravel, mud, water.
- possibility of observing animals - implementation of bird boxes, insect houses, include animal breeding within community gardens (chicken, pigeons, rabbits, tortoise)
- play areas with greenery and shrubs can be made more interesting and attractive by growing edible and educational plants and crops or by semi-wild play areas
- edible and educational plants and crops being grown in school gardens, allotments and urban farmland

Schools and nurseries:

conditions above +

- the ratio of paved area to green space should be 2 : 1 for school yards larger than 300 m²
- designing especially trees with seasonal variability (i.e. flowers, fruits and leaf colour)
- designing flower beds with eatable plants, herbs, vegetables, fruit trees and shrubs
- designing perennial meadow where children can run and hide during the break

Specific production areas for growing crops and taking care about animals within:

- schools / leisure centres / urban farmland / forest plots / community gardens / allotment gardens / orchards.

DESIGNING VEGETATION

It is advisable to design trees according to the types of growth (výpěstku). Talltrunk's tree and multistemmed species resistant to mechanical damage that branch from the ground and are naturally accessible to children. Smaller trees with an overhanging crown type and a variety of natural gates proportioned to a child's scale are also popular (author's own observation and practise).

It is very important that the plants are safe for children, so they should not cause poisoning and should be soft, flexible and without thorns or spines (Machovec, 1987).

Depending on maintenance, fruit trees can also be planted - these are particularly suitable for nursery gardens. In addition, parts of some woods, such as willow wicker, are particularly suitable for use in handicrafts or simple building. Hardy plant species are particularly suitable as boundaries for play areas.

Children are generally interested in flowers, so it is a good idea to include species that flower at less common times.

The quality of playing areas can be therefore enhanced by the selective use of plants. Berry plants, fruit and nut trees, fragrant plants or even plants with special colours and leaf shapes can stimulate the senses and serve as play material.

Autumn-coloured leaves or interestingly peeling leaves are attractive. Very popular are fruits that can be freely collected to use for play. Examples of berries include *Staphylea*, *Corylus*, *Quercus*, *Aesculus*, *Sorbus* and *Symphoricarpos*.

(Hlavničková, 2017 / Zimmermann, 2015).

PARTICULARLY WELL-SUITED woody plants and herbs

Tress

Despite major limitations, the range of products suitable for playgrounds is still quite varied. As already mentioned, trees in playgrounds are subject to mechanical damage and taxa with good regeneration capacity should be chosen:

- *Acer campestre*
- *Amelanchier ovalis*
- *Carpinus betulus*
- *Prunus racemosa*
- *Quercus robur* / *Q. petraea*
/ *Q. rubra* / *Q. pubescens*
- *Tilia cordata* / *T. platyphylla*
/ *T. tomentosa* (good wood for carving)

In conifers, the regeneration capacity is weaker, but you can still use e.g:

- *Larix decidua*
- *Picea omorika* / *Picea pungens*
- *Pinus silvestris* / *Pinus nigra*
/ *Pinus strobus*
- *Pseudotsuga menziesii*
- *Tsuga canadensis*

Very suitable species for use in playgrounds include:

- *Celtis occidentalis*
- *Corylus colurna*
- *Sophora japonica*

Many species of the genera *Salix*, *Alnus* and *Populus* are also suitable due to their rapid growth, but these trees need to be pruned and removed early.

- *Salix caprea* / *S. viminalis*
(dormant cuttings for making willow tunnels,
willow tents and similar living willow structures)

Srubs

- *Acer*
- *Berberis*
- *Buddleja alternifolia*
- *Carpinus betulus*
- *Cornus mas* / *C. sanguinea*
- *Coryllus avellana*
(material for bows and arrows; eaten nuts)
- *Forsythia*

- *Fraxinus excelsior*
(suitable for making whistles)
- *Kerria*
- *Philadelphus*
- *Ribes*
- *Rosaceae/ Rosa species*
(with a range of fragrant, colourful and non-poisonous species
+ fine hairs from inside the rose hips as itching powder)
- *Rosaceae/ Rosa species*
- *Sambucus nigra*
(suitable for whistles and blow pipes as well as arrowheads
for archery; because the berries are mildly poisonous, can only
be recommended with restrictions)
- *Staphylea pinnata* (playable fruits)
- *Symphoricarpos albus*
(fruits used as „bang snaps“; because the berries
are mildly poisonous, can only be recommended with
restrictions)
- *Syringa vulgaris*
- *Spiraea*
- *Tamarix*
- *Viburnum lantana*

(Machovec, 1987 / Zimmermann, 2015)

Herbs

There are EDIBLE FLOWERS of plants according to the long-standing research of Mrs. Ing. Jarmila Neugebauerová Phd. Who, among other things, has been organizing summer seminars with tasting of edible plant flowers in the Lednice Theme Gardens for several years in a row.

Here is only a selection of some of the many species studied by the doctor and their possible uses:

- *Cichorium intybus*
- *Echium vulgare*
- *Lamium album*
- *Centaurea cyanus*
- *Bellis perennis*
- *Viola odorata*
- *Sambucus nigra*
- *Thymus vulgaris*
- *Alcea rosea*
- *Ocimum basilicum*

(lecture of Neugebauerová, 2018)

4. CHILDREN SCALE

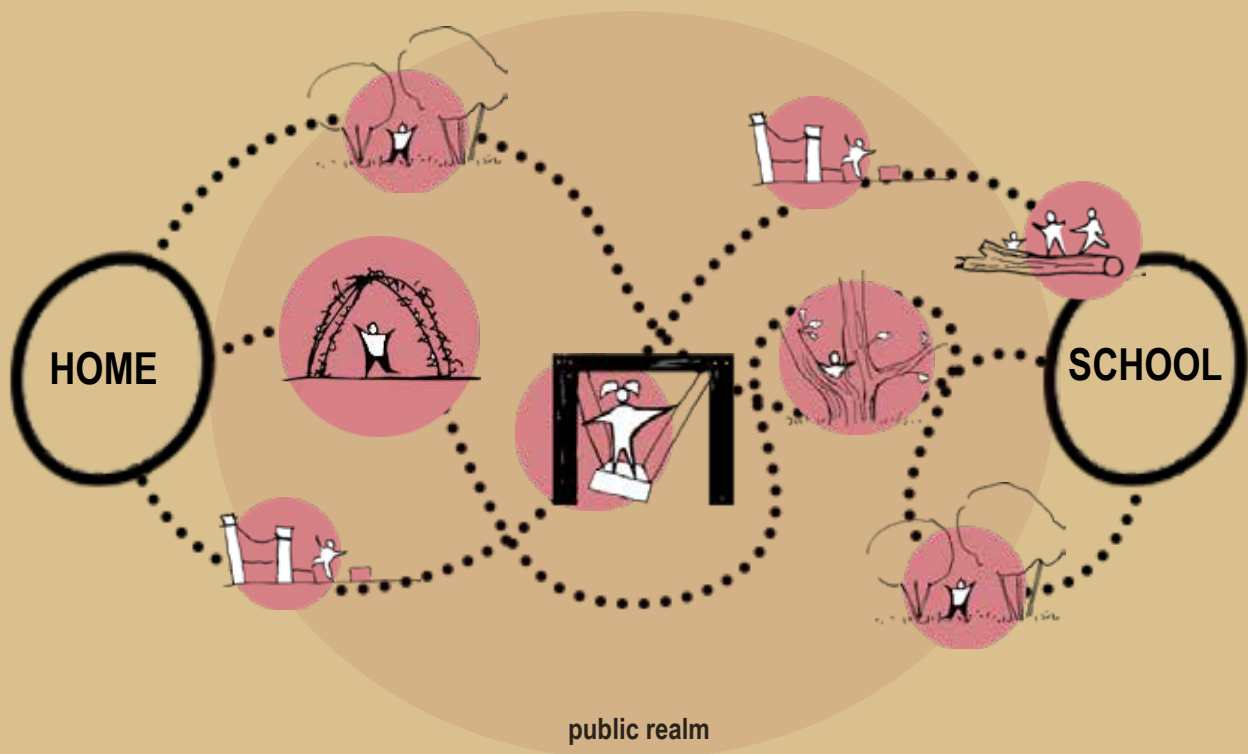
= 'adult free' children scale space

I am in space close to my proportion!

It could have the dimension of a passage for an adult, but for a child is a room. It is designed to foster children imagination, doesn't dictate how to play, instead enhances children to discover all the affordances provided in it (URL3, 2020).



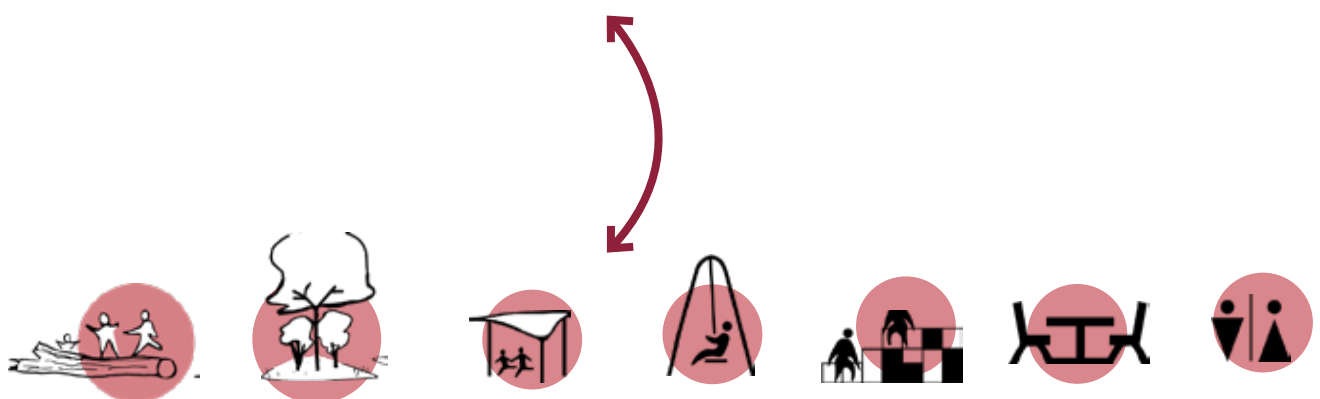
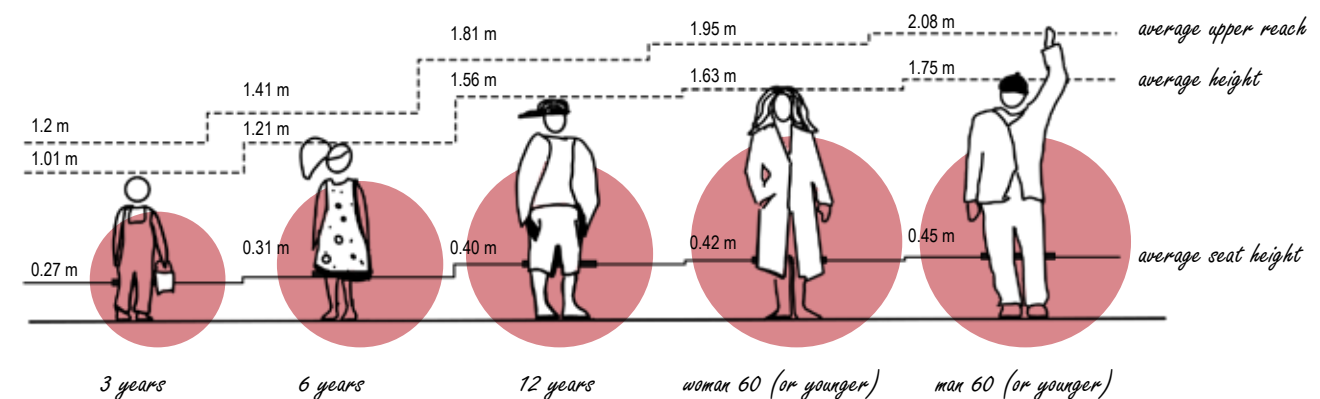
CHILDREN SCALE DIAGRAM



City environments promote children scale by:

Children have the opportunity to be in an environment that belongs only to them. Where the big ones can't fit.

- These basic measurements serve as a guide, expressing average values for human dimensions and other measurements. They should therefore be applied creatively and consciously when designing specific elements. The established measurements should be taken into account when designing furnishings, vegetation elements, play equipment, sanitary facilities and shelter. For sizing play and movement areas or designing seating, these measurements are basic standard values for reference that can be adjusted as needed to accommodate expected use.



Specific interventions:

- Setting a standard seat height represents a compromise between practicality and functionality. Although this is sufficient as a general rule, deviations from such a standard are necessary to meet specific application requirements. The occasional provision of benches with a lower, non-standard seat height of 0.3 m for children's use should be the norm for every public space, not just play and school buildings.

Notes:

Children's scale is reflected and must be met in the parameter playability (children's elements and furnishings)/ contact with nature (size of trees)/ ownership and care (size of raised beds)

(Zimmermann, 2015)

5. SOCIAL CONNECTEDNESS

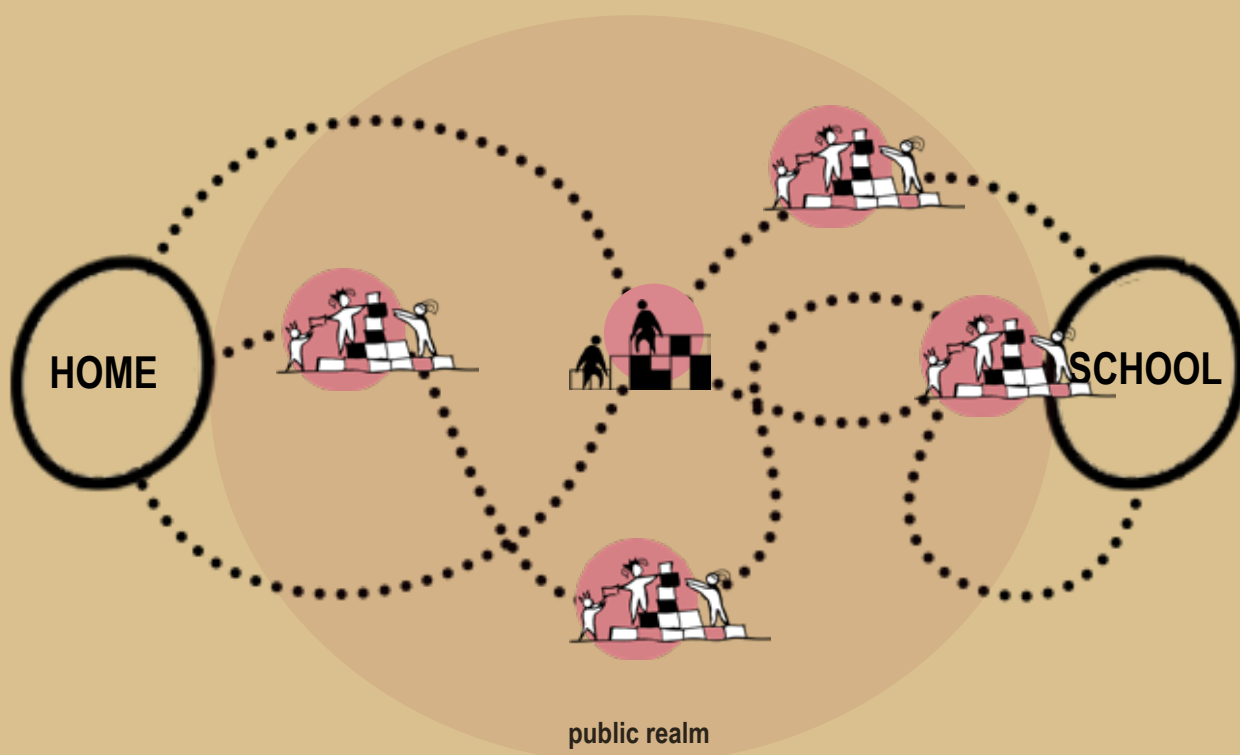
= integration children into the life of the city

I am close to the others!

Play is an activity that brings people together. Through which relationships are strengthened, developed and children learn (D1, 2022). With other age groups, children build a sense of belonging. They feel part of a community in both public and semi-public spaces (C1, 2019).



SOCIAL CONNECTEDNESS DIAGRAM



City environments promote **social connectedness** by:

The children and all inhabitants are in immediate spontaneous contact with the others.
They form new relationships, communicate and get to know their home environment

Social connectedness is the degree to which people have and perceive a desired number, quality, and diversity of relationships that create a sense of belonging, and being cared for, valued, and supported (URL4, 2023).

Specific interventions to help social connection:

- designing inclusive character of play or sitting equipment regard to requirement users proportions and age
- designation intergenerational functional zones with community character (centres, gardens) connecting all inhabitants
- define a new functional area filled with programs supporting special interests and hobbies (book, art, sports, cultivation,..)

6. WAYFINDING

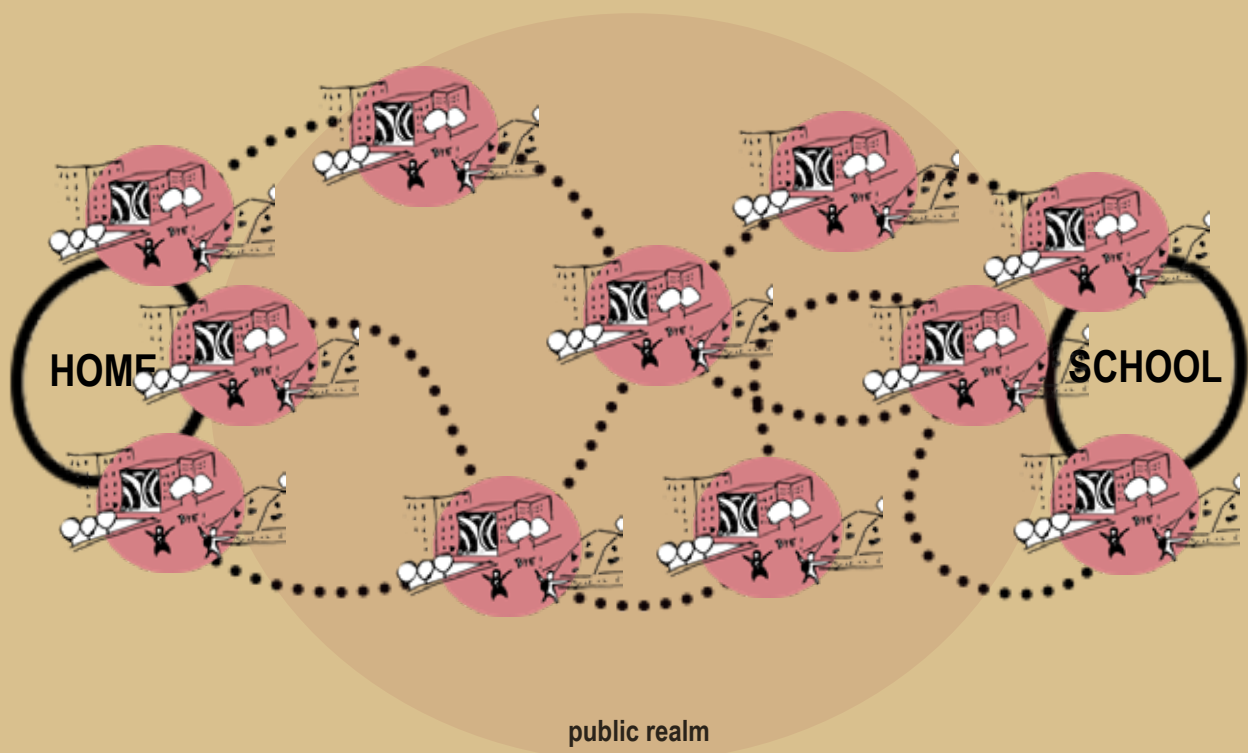
= identification with the environment

The place is memorable and intuitive for the child to navigate without stress and confusion. Meaningful design guides the child through the space efficiently and captures its attention. The signs matter as much as the arrows and the environment and how children respond to it (URL4, 2022).

I can orientate in space!



WAYFINDING DIAGRAM



City environments promote **wayfinding** by:

Children orient themselves on their daily routes according to orientation points specified by landmarks.

Specific interventions:

- A functional wayfinding design should intuitively, seamlessly, efficiently and effectively guide the user through the space
- Use visual aids that overcome language or cultural differences
- A key element in the design of children's wayfinding features is to place all information lower to the ground to accommodate smaller people and ensure designs are accessible and impactful
- The use of bright colours that capture the child's attention, pictures, images and pictograms is essential for children who may not be able to read or understand words, which is particularly important when navigating unfamiliar spaces
- The use of textures such as tactile signs, interactive displays, sounds and installations are also useful ways to engage and entertain children. Adding an element of play or exploration is a great way to keep a child's attention - elements such as image-based maps are a great way to help children create a visual journey
- Use of memorable landmarks, as children are more likely than adults to use these elements to remember a route and understand which way to turn or go
- Composes the placement of distinctive visual clues:
 - close to the ground and eye contact for the child's naturalness
 - depending on the type of space and age-specific attendance (preschool, elementary school, middle school, mix)

Distinctive visual clues

- landmark point - fixed or interactive (play features, sculptures, water features)
- landmark plane - distinctive colours, textures, pictograms, images, artistic expressions

(URL4, 2022)

7. OWNERSHIP and CARE

= own responsibility growing

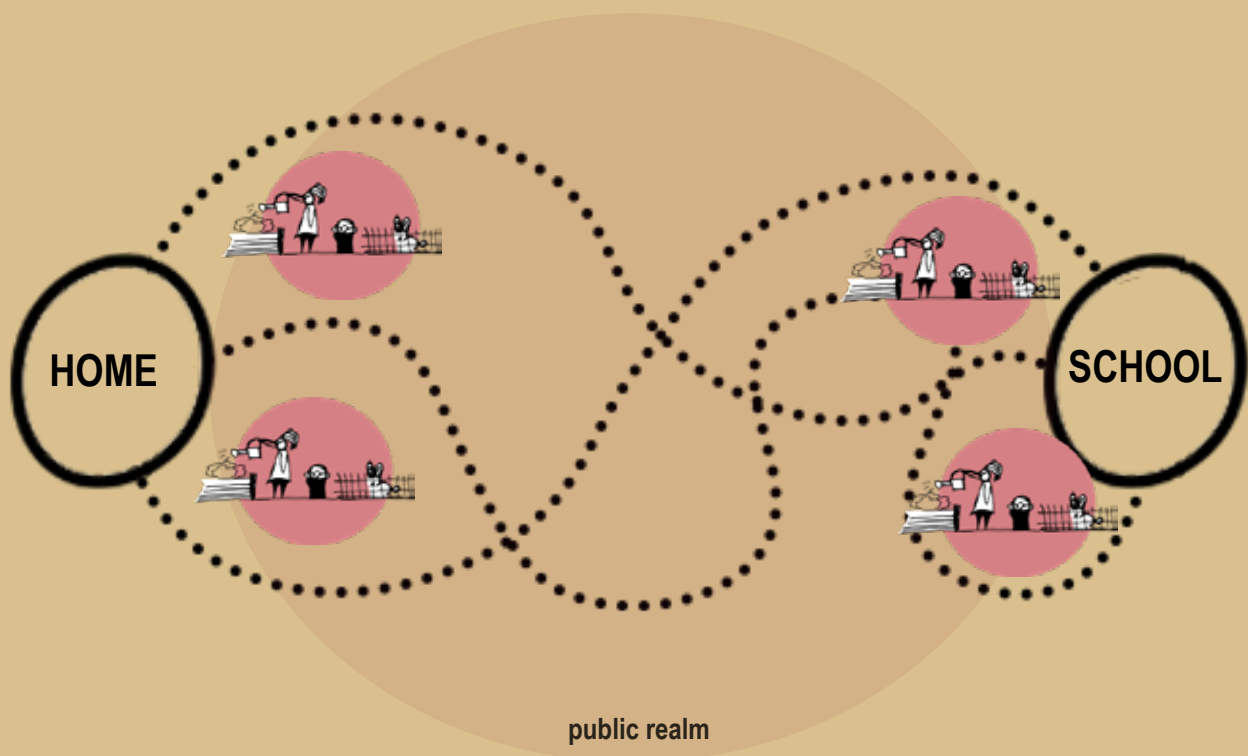
Through care about something, children develop a relationship and learn to take responsibility for it, while learning new things and being motivated by a positive outcome to continue to perform.

When a parent provides an opportunity for a child to learn something on its own without them (in early age still under the control), the child builds confidence and the joy of being in control.

I have something to care about!



OWNERSHIP and CARE DIAGRAM



City environments promote **ownership and care** by:

Children have the opportunity to take care of crops or animals either individually or in the community.

Specific intervention:

Housing corporations and local district councils supporting create:

- community gardens
- allotment gardens
- so-called ‚play wildernesses‘/ ‚adventurous playground‘
- messy playyard‘/ ‚natural playyard‘
...where children can run around freely and engage in climbing and playing

Schools and nurseries

- designing perennial meadow where children can run and hide during the break
- designing designated areas for keeping a small number of animals e.g. chickens - eggs can be sold at monthly markets on neighbourhood squares

Specific production areas for growing crops and taking care of animals:

- within schools, leisure centres, urban farmland, forest plots, community gardens, allotment gardens, orchards.

8. DECISION MAKING

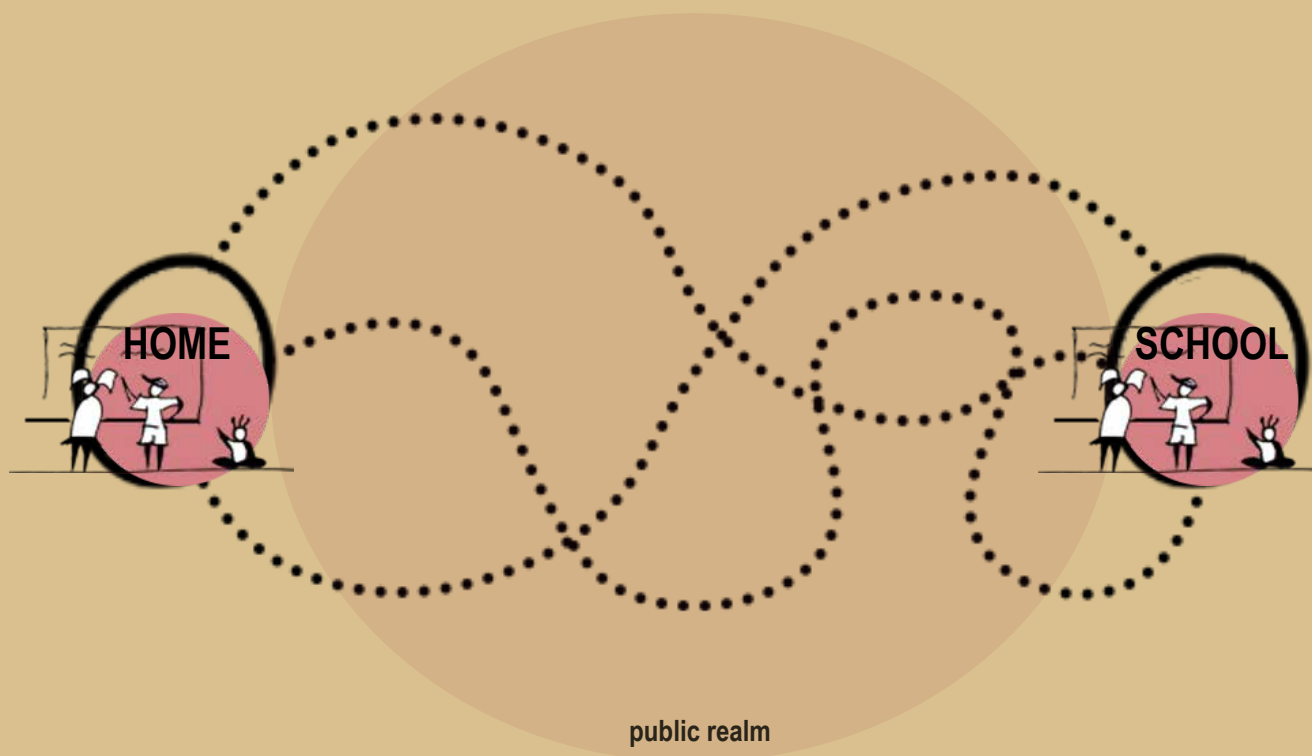
= participation

Involving children and young people in the planning process is an obvious part of the process of creating spaces for play. Children are not experts in design, but they know how they want to play (B3, 2019).

I can say what i want to here!



DECISION MAKING DIAGRAM



City environments promote **decision making** by:

Co-assessment of preferences and wishes of the youngest to the oldest using appropriately chosen participatory methods, carried out by a specialised organisation.

Specific methods:

It is advisable to cooperate with the municipality, school or local associations and expert (architect / sociologist / educator) in collecting data. The proven participatory methodology is based on a set of different methods used in each step of the procedure according to the age group of the children. In order to get a comprehensive picture of children relationship to the environment and their views and wishes in relation to the environment, it is useful to divide the methodology into individual steps in relation to:

Current state

- perception of the environment and assessment of its current state

Experiences and activities

- experiences and activities undertaken

Negatives and positives

- in relation to functions and activities in the current area

Possible changes

- views and preferences on possible changes in the area and preferred future changes functions, content, and activities

methods by age of participants:

NEWBORNS + TODDLER

- observation, photo documentation, communication with parents (interview, questionnaire)

PRESCHOOL CHILDREN (3-6)

- walks / observation / photo documentation / communication with parents (interview, questionnaire) / creation and analysis of cognitive maps / individual and group interview / photographs of children and their analysis / scoring / evaluation of illustrations of the environment and activities in the environment / colouring and filling in the questionnaire with assistance / creation of models

PRESCHOOL CHILDREN younger

- walks, evaluation of the area through prepared forms and worksheets, observation, photo documentation, map work, creation and analysis of cognitive maps, individual and group interviews, photographs of children and joint analysis through interview, SWOT analysis of the environment, scoring/evaluation of the picture of the environment and activities in the environment, picture and text questionnaire, creation of models.

PRESCHOOL CHILDREN older

- walks with a form to fill in and photo documentation, scoring/evaluation of the picture of the environment and activities in the environment, observation, photo documentation, map work, creation and analysis of cognitive maps, feeling maps, SWOT analysis of the environment, individual and group interviews, questionnaire (supplemented with open questions and focused on qualitative data in addition to quantitative data), creation of models.

ADOLESCENTS

- the above mentioned methods complemented by discussions in the form of forums, round tables, model building.

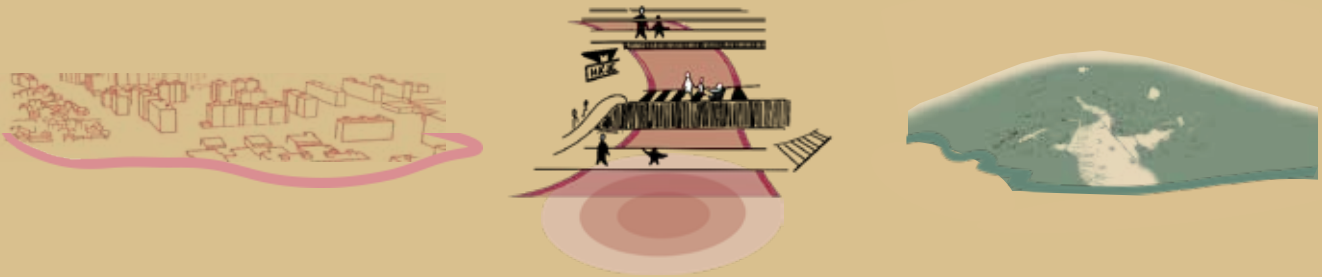
(C1, 2019)

SPATIAL PARAMETRES of the SOUTH TOWN

NEIGHBOURHOODS

TRAFFIC STRUCTURES
and OBJECTS

PARKS



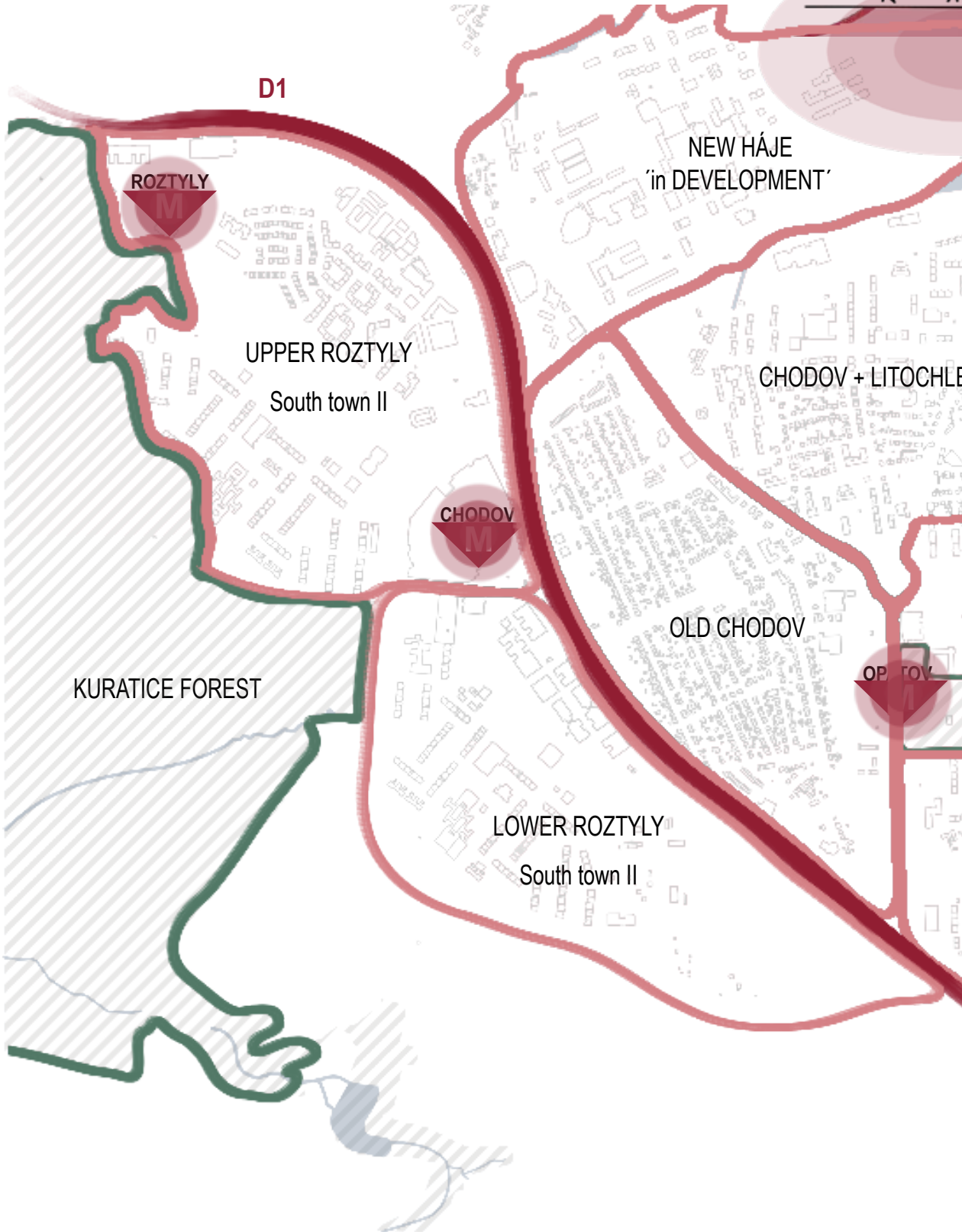
The South Town on the territory of Prague 11 is specific for its scattered, non-uniform character, caused by the gradual completion of individual residential areas.

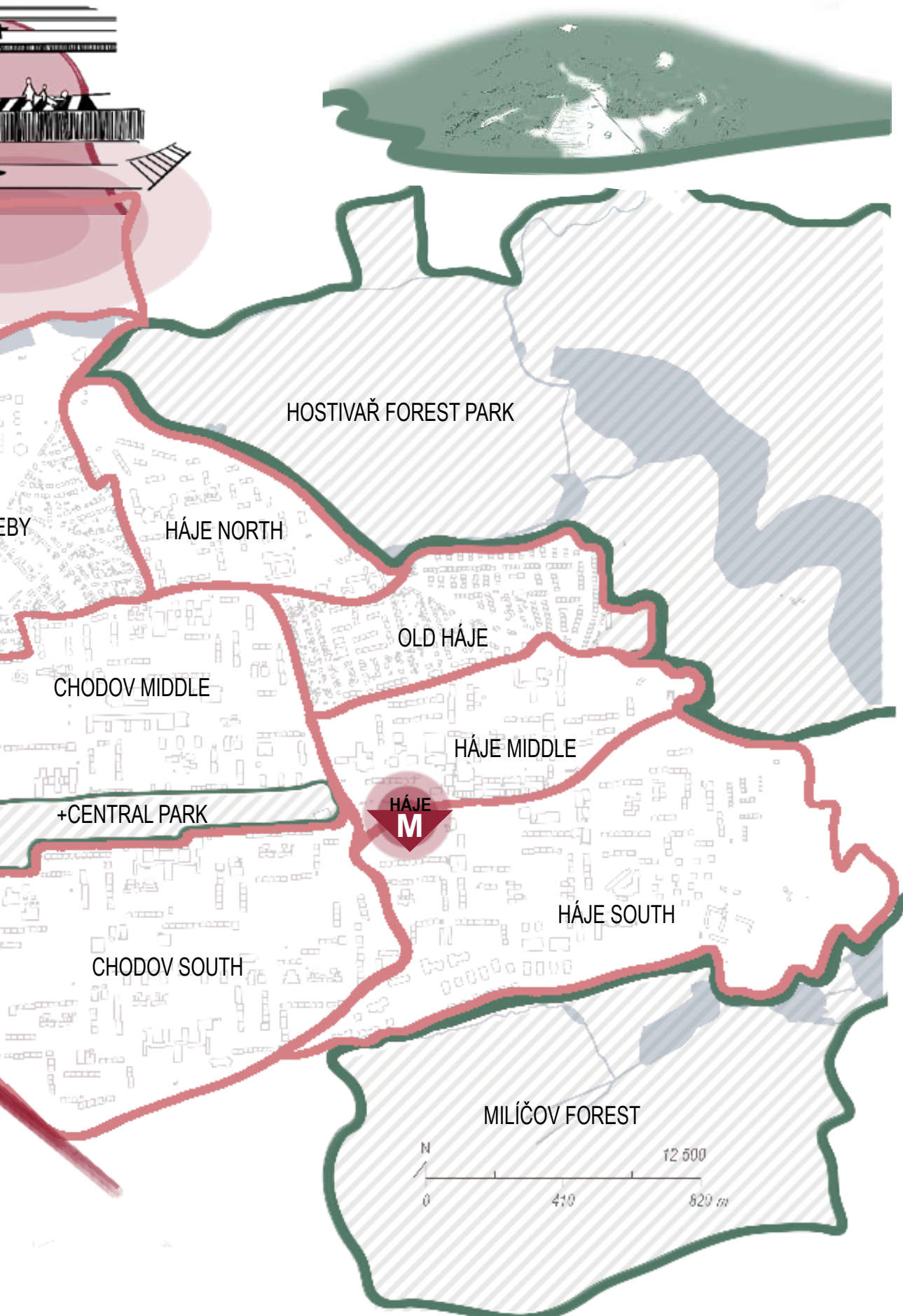
To determine the basic conceptual principles that lead to the design of a new habitable environment from a child's perspective, the territory is divided into three main conceptual zone areas - ***neighbourhoods***, ***traffic structures*** and ***objects*** and ***parks***. In these areas children stays long-term or short-term.

These zones in relation to spatial zones will be designed friendly to children i.e. so that the area is safe and playful for daily children movement and stay.

NEIGHBOURHOODS

TRAFFIC ST
and OB





ZONES / SPATIAL PARAMETERS of the SOUTH TOWN

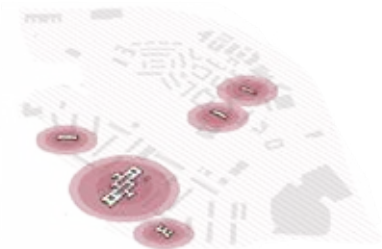
NEIGHBOURHOODS



STREETS
each has hierarchy of streets



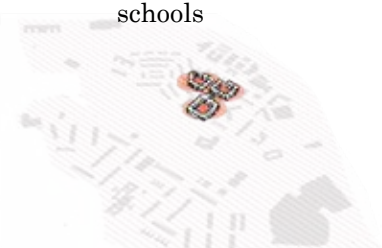
PLAYGROUNDS
each has some numbers of specific playgrounds



SCHOOLS
each have some numbers of schools



PRIVATE OBJECTS
each have some numbers of private objects where children could be visitors, users or co-users



COURTYARDS
some of them on the South town II. have typical closed courtyard structure with public yard place.
On South Town I. courtyards have unclosed wide scale character.



BLIND SPACES
each has some places without clear function in prevails form of unconceptual greenery spaces. Large of them often intended for new development.

TRAFFIC ST and OB and OB



BRID



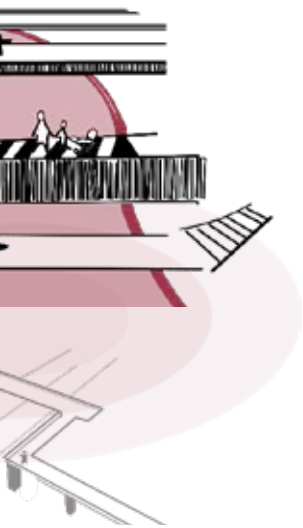
ROADS



UNDI



**STRUCTURES
OBJECTS**

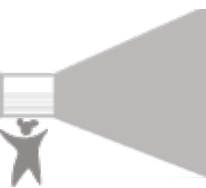


RODGES



SIDEWALKS

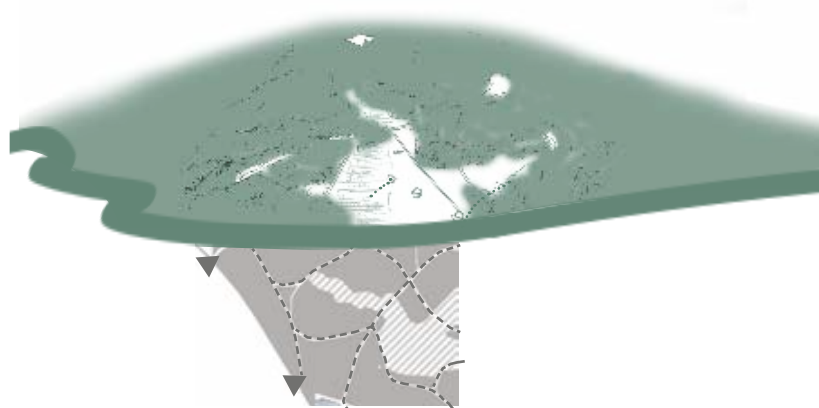
CROSSINGS



OVERPASSES



PARKS



ACCESS and PATHS
each has entrances and web of paths
which should count with all users and
their activity



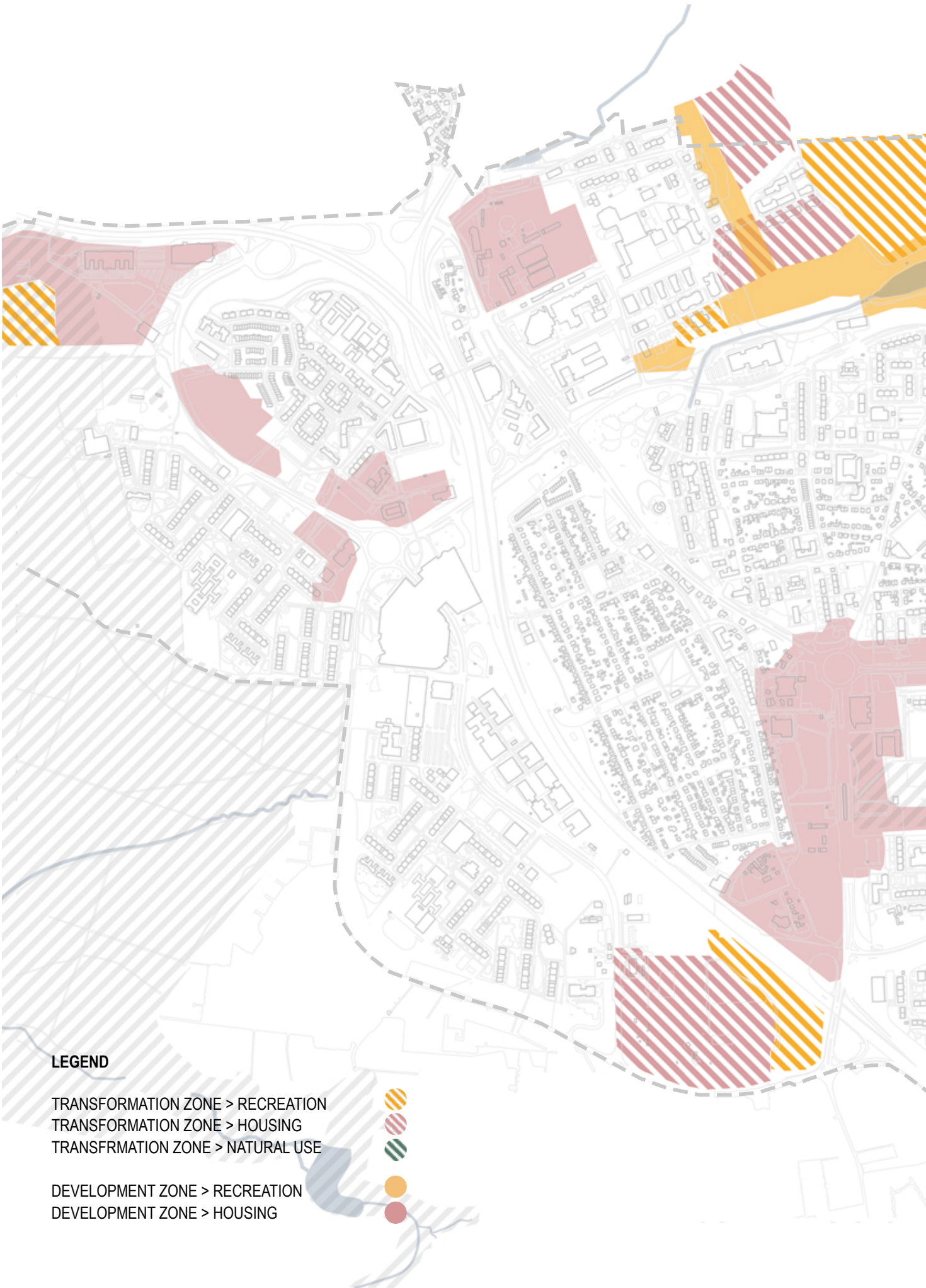
OPEN-SKY and DARK SPACES
where children can meet special
recreation offer



WATER close SPACES
where children can meet special
recreation offer



SUBZONES / SPATIAL PARAMETERS of the SOUTH TOWN



LEGEND

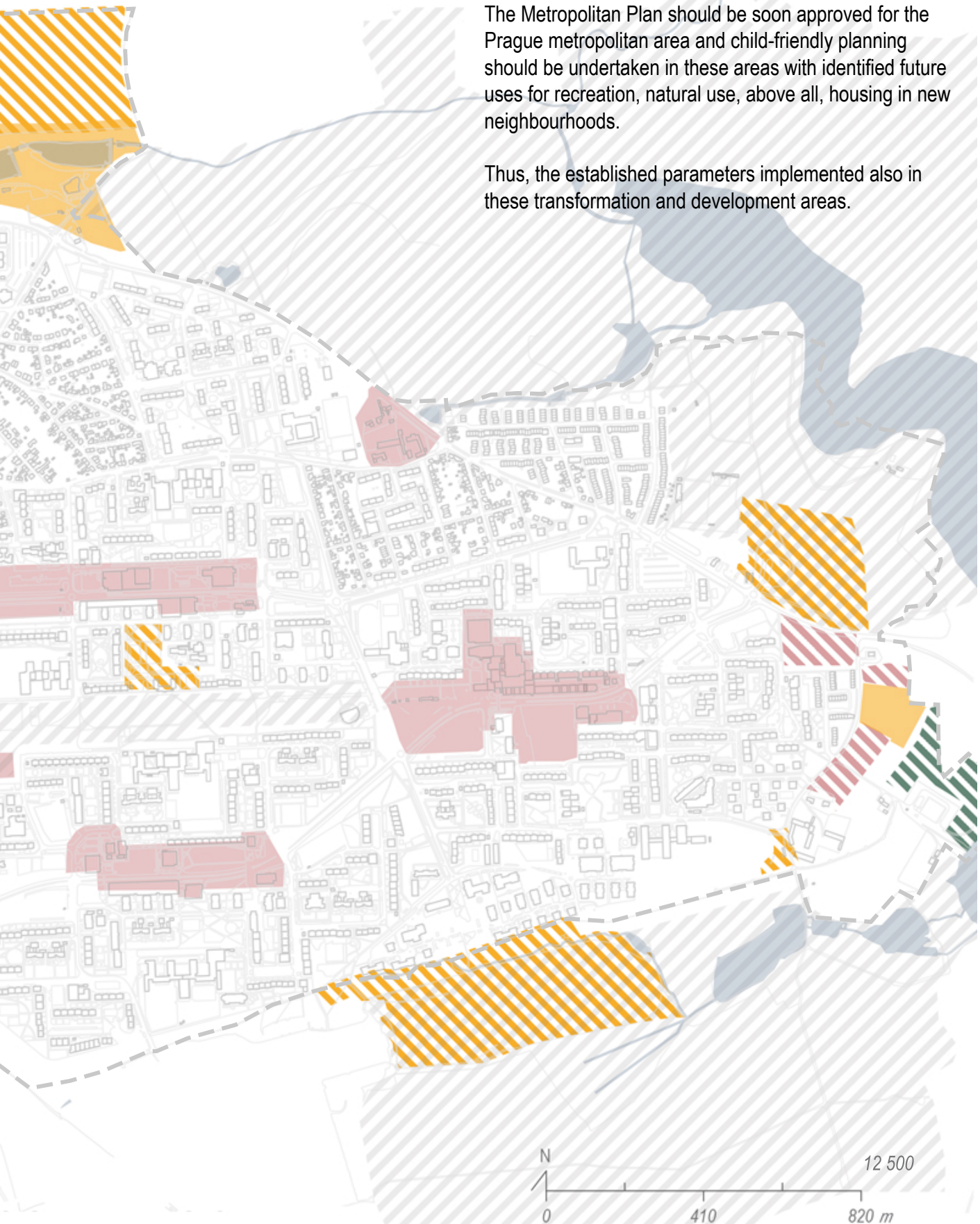
- TRANSFORMATION ZONE > RECREATION
- TRANSFORMATION ZONE > HOUSING
- TRANSFORMATION ZONE > NATURAL USE
- DEVELOPMENT ZONE > RECREATION
- DEVELOPMENT ZONE > HOUSING



The transformation and development areas identified in the Metropolitan Plan determine the future function of areas of a unified character.

The Metropolitan Plan should be soon approved for the Prague metropolitan area and child-friendly planning should be undertaken in these areas with identified future uses for recreation, natural use, above all, housing in new neighbourhoods.

Thus, the established parameters implemented also in these transformation and development areas.



03

Proposal

CHILDFRIENDLY STRATEGY

The childfriendly city paramaters are the basic pillars on which the ***neighbourhoods, traffic infrastructure and objects, parks*** each of their spatial zones should stand on a narrower scale, in order to design this space, child-friendly' and with these spaces the whole city.

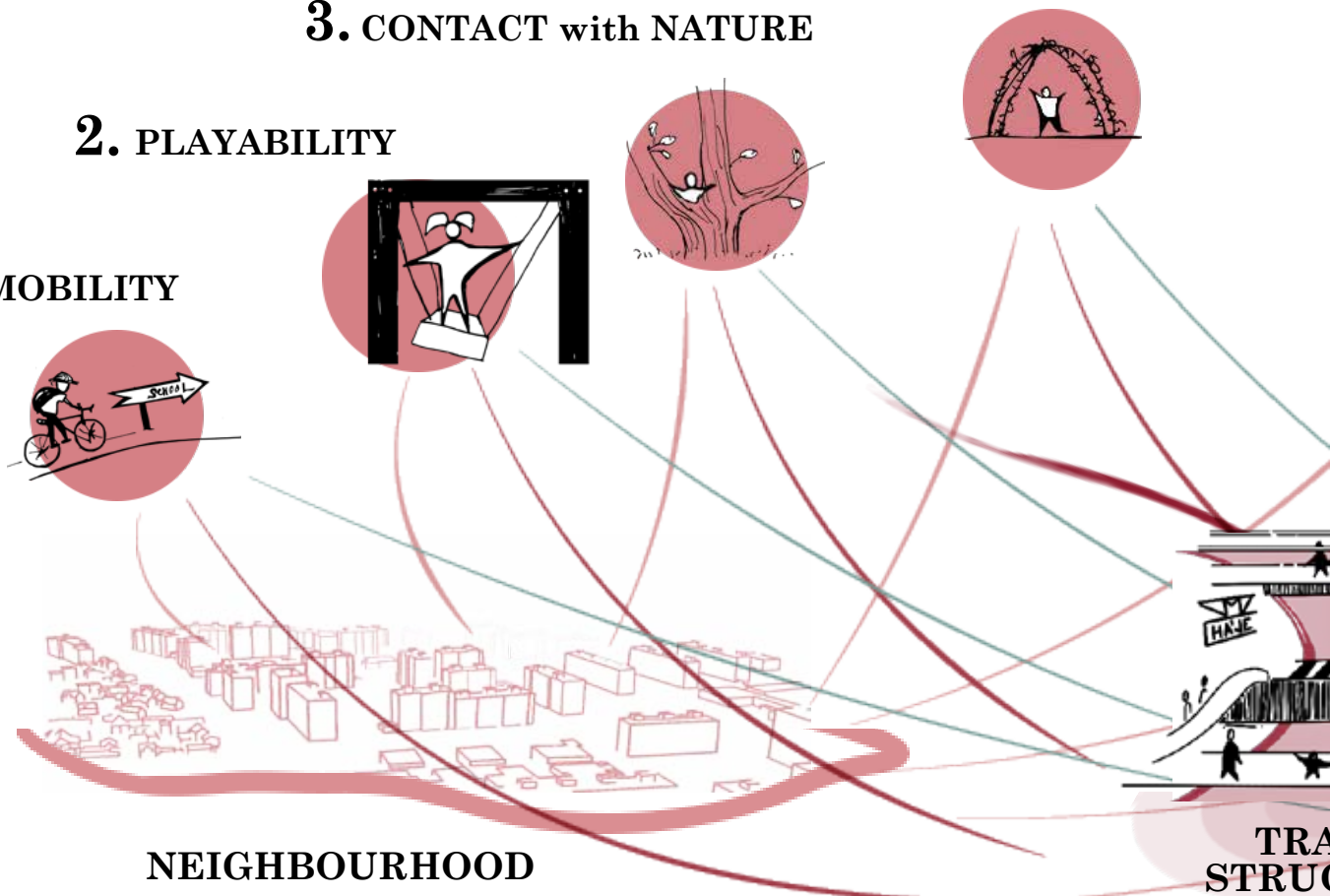
By implementation these parameters into spatial units/ subzones, it is as if the territory guarantees offer outhdoor spaces close to children's needs and wishes - and therefore to all other inhabitants. Providing a healthy, safe and playful environment for their current and future, physical and mental development.

4. CHILDREN SCALE

3. CONTACT with NATURE

2. PLAYABILITY

1. MOBILITY



NEIGHBOURHOOD



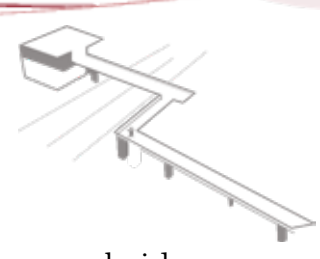
streets



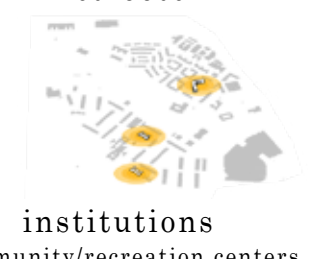
playgrounds



blind corners



bridges

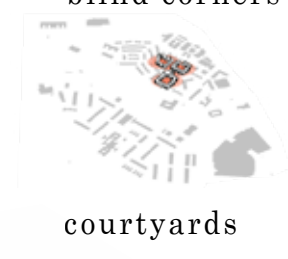


institutions

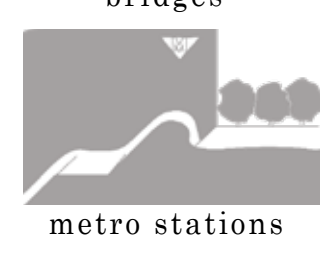
(community/recreation centers /retirement homes)



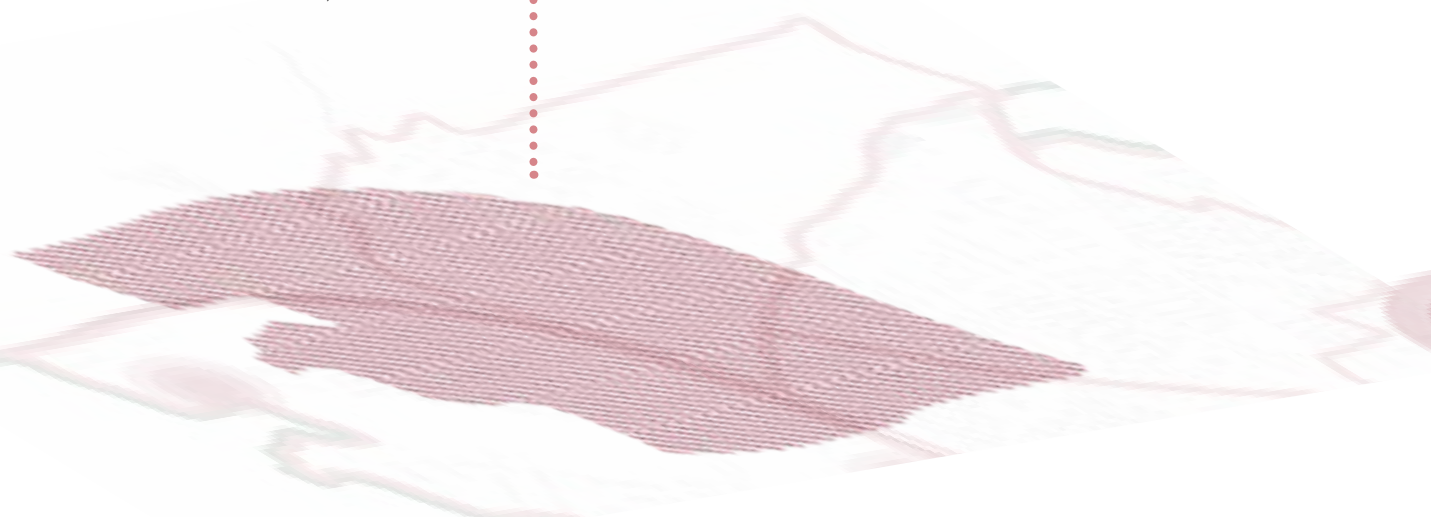
schools



courtyards



metro stations



5. SOCIAL CONNECTEDNESS



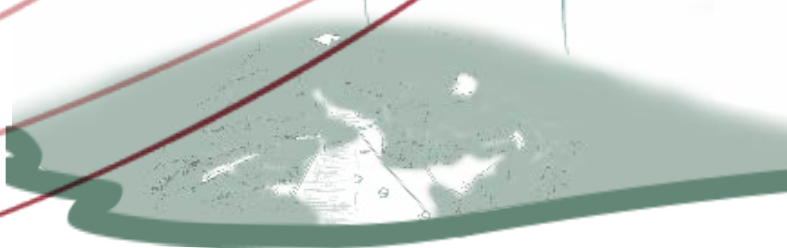
6. WAYFINDING



7. OWNERSHIP and CARE



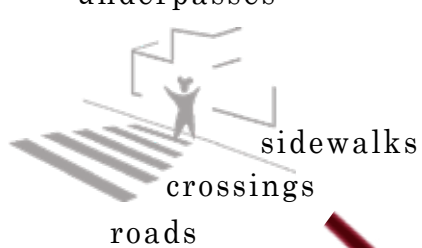
8. DECISION MAKING



underpasses



entrance / access / paths



sidewalks

crossings

roads



open sky / dark places



water areas



CHILD FRIENDLY SOUTH TOWN

Childfriendly South Town

STUDY AREA



LOCATION A

NEIGHBOURHOOD_Háje north
concept level

LOCATION B

PLAYABLE STREET_Shulhoffova
design level



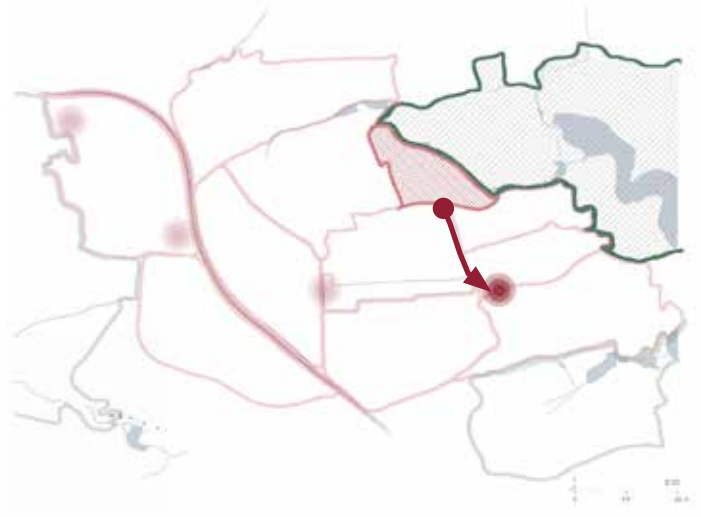
LOCATION D

INFRASTRUCTURE_Prašná
concept level

LOCATION E

SUBWAY STATION_Háje
concept level





LOCATION C

FORESTPARK_Hostivař
concept level

STUDY AREA

Based on the evaluation of several factors, the northern neighbourhood of Háje and its connection to the Hostivař forestpark and the subway metro station emerged as the most suitable area for the presentation of recreational spaces for children in the territory of the whole South City I and II.

FORESTPARK_Hostivař

NEIGHBOURHOOD_Háje north

PLAYABLE STREET_Shulhoffova

INFRASTRUCTURE_Prašná

SUBWAY STATION_Háje



BOUNDARIES

(description: south > east > north > west)

Háje North neighbourhood boundaries are defined by the main street of Květnového vítězství from the south, Mírového hnutí from the northeast and Brechtova street from the west. It has a homogeneous character of modernist prefabricated housing with basic public amenities.

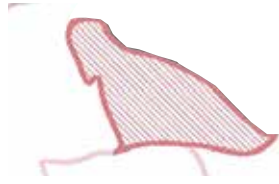
The boundaries of the **Hostivař Forest park** are an integral part on the west of the Hostivař water reservoir. In the south they run along the boundary of the intravilan along the forest path connecting the three retention reservoirs Hájecký and to the east they follow the path beyond which further to the east private recreational areas on the banks of the Hostivař reservoir.

The eastern boundaries are connected from the north by an asphalt road and further along the Košíkovský stream to the connecting street to Horká, which connects to the Mírového hnutí street lining the park on its western side.

The boundaries of **Prašná street** define the adjacent linear greenery along it and the development of the surrounding neighbourhoods having the potential character of a linear park at the junction of the metro station and Hostivařský lesopark.

The boundaries of the **subway station Háje** are defined by the present unused green island in the vicinity of the metro and its roofed structure with the

FACTORS of NEIGHBOURHOOD HÁJE NORTH



-adjacent to the ‚Hostivařský lesopark‘

The connection to the park is an asset to the neighbourhood. Most residents visit it mainly on weekends or for regular sports activities (running, working out). It should therefore be a quality recreational facility for residents as well as the

The park is a natural recreational area that should primarily support children's independent access to facilities that are designed with respect to the site itself, its potentials and limits.

adjacent to the areas of ‚Litochleby‘ and ‚Staré Háje‘

These are rural scale neighbourhoods that are and may in the future be even more dependent on this neighbourhood due to the range of activities and leisure services that cannot be created here due to the spatial layout.

The offer of new or restored original recreation areas in the Groves North area, may also serve children from these neighbourhoods who come here to attend school or visit friends.

it is the furthest from the metro station

Residents of this neighbourhood depend on the Háje metro station, commuting mainly by local public transport. The intention of the proposal is to create a safe, residential and attractive infrastructure friendly to

children from Prašná and U Modré školy streets. This is done by establishing a clear hierarchy for pedestrians, cyclists (other means) and greenery.

FACTORS of HOSTIVAŘ FORESTPARK



The selected west part is least developed park part in terms of the road network (connectivity and condition of cycle paths, nature trails) and the actual offer of diverse activities for all age groups in the territory of South Town.

elements within the playgrounds or within the natural open spaces of the park does not fulfil the potential that the park offers. The current elements are located without a deeper concept, composition and their materials are deteriorating.

FACTORS of SUBWAY STATION HÁJE



The metro Háje area itself, is one of the least comforting metro stations in the whole of the Southern City. In the morning and night hours, it does not operate safely not only for adults, but especially for children.

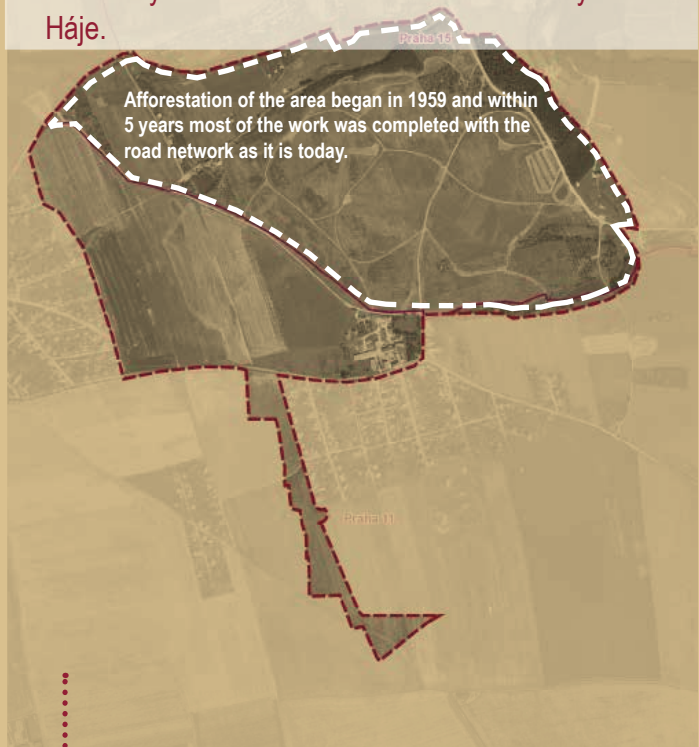
The proposed child-friendly interventions are an inspiring solution for other main arteries and metro stations of the South City.

1/ The selected area has changed during 160 years beyond recognition from its original form at the beginning of the 19th century.



1826-43
imperial imprints

2/ The original form of the picturesque landscape around the old Háj, intertwined with forests and nearby streams, grows into a settled landscape about a hundred years later on the border of Litochleby and Háj.



1966

1945

1974-75



3/ The Chodov and Háj areas, connected to Prague district in 1968, are beginning to be transformed into housing areas. In 1966 a network of paths was created in Hostivařský Park, ten years later the rest of the area has the appearance of a construction site.

4/ The first inhabitants moved to the new Háje in 1976. School Modrá škola was the first to be built, and in 1979 the School Květnového vítězství was established, with 750 pupils enrolled. Subway station Háje was established in 1980. Along with the construction of high-rise buildings, a composed public space with sports facilities and playgrounds is created. The hexagonal module used to create the outdoor play areas is evident.



1988-89



2010

2000

TODAY

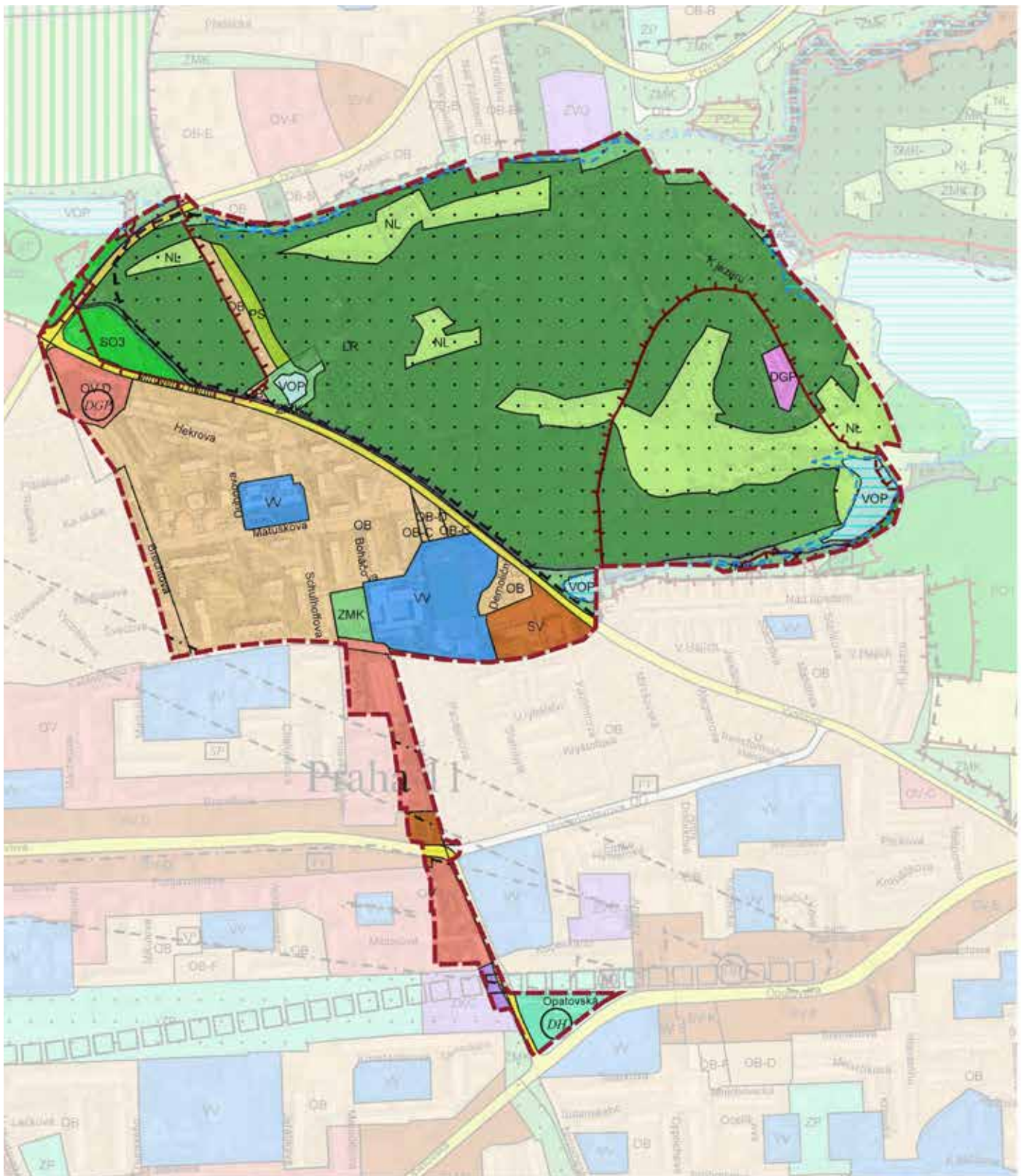


5/ Along with the construction of high-rise buildings, a somewhat composed public space with sports facilities and playgrounds is created. The hexagonal module used to create the outdoor play areas is evident almost twenty years after the fact.



6/ There have been no significant changes in the area since the 1980s. The public space is interspersed with mature greenery, the origin surface materials and playground equipment has deteriorating character.





LEGEND

Neighbourhood Háje North + Infrastructure Prašná street

- **OB** - residential
- **SV** - generally mixed
- **VV** - public facilities
- communication network
- **ZKC** - special complexes of civil equipment
- **DGP** - garages and parking
- **OV** - generally residential

Hostivař forestpark

- **VOP** - watercourses and areas, navigation channels
- **SO3** - partially urbanised recreational areas
- **PS** - orchards, gardens and vineyards
- **NL** - meadows and pastures
- **ZMK** - partially urbanized/natural areas for recreation
- **LR** - forest vegetation
- Metro station Háje*
- **ZP** (*Opatovská*) - parks, historical gardens, cemeteries



LEGEND

Neighbourhood Háje North + Infrastructure Prašná street

BUILDABLE TRANSFORMATION area

residential use

EXISTING PUBLIC AMENITIES

commercial amenities

civic amenities

BUILDING BLOCKS

existing buildings

park in free development

Hostivař forestpark

BUILDABLE DEVELOPMENT area

recreational use

BORDERS

build-up area

interface of landscape

HIEARCHY of PARKS

metropolitan park

UN-BUILDING BLOCKS

other area with vegetation

orchard and garden

forest on non-forested land

forest on forest land

water area and water source

BUILDING BLOCKS

private garden

HÁJE NORTH

Brechtova



15 min



5 min



10 min



1 min

Modrá škola



Háje



METRO HÁJE





KUNRATICE FOREST

Wagnerova

30 min

10 min



LEGEND



LEISURE AREAS



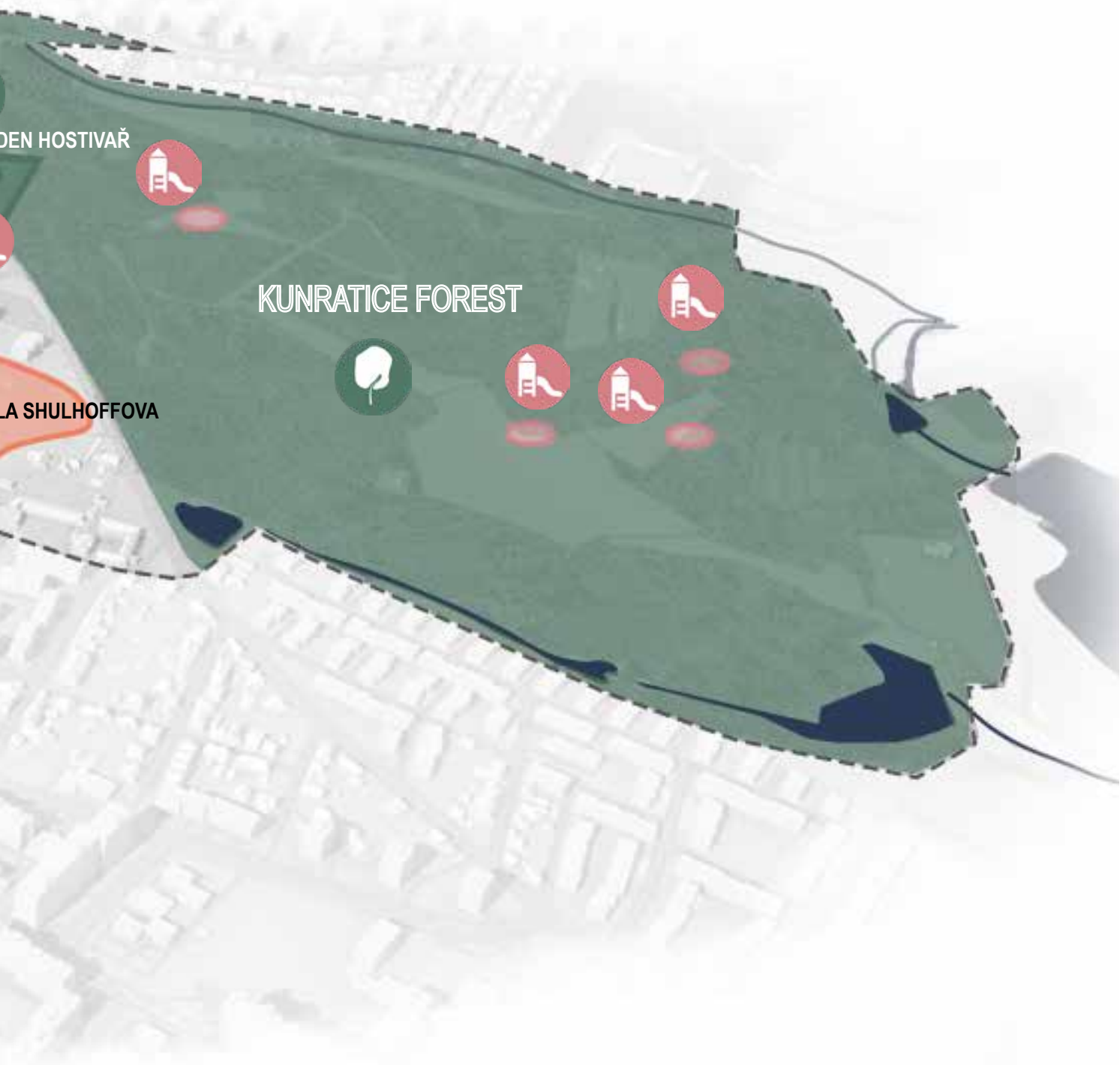
SCHOOLS



PARKS



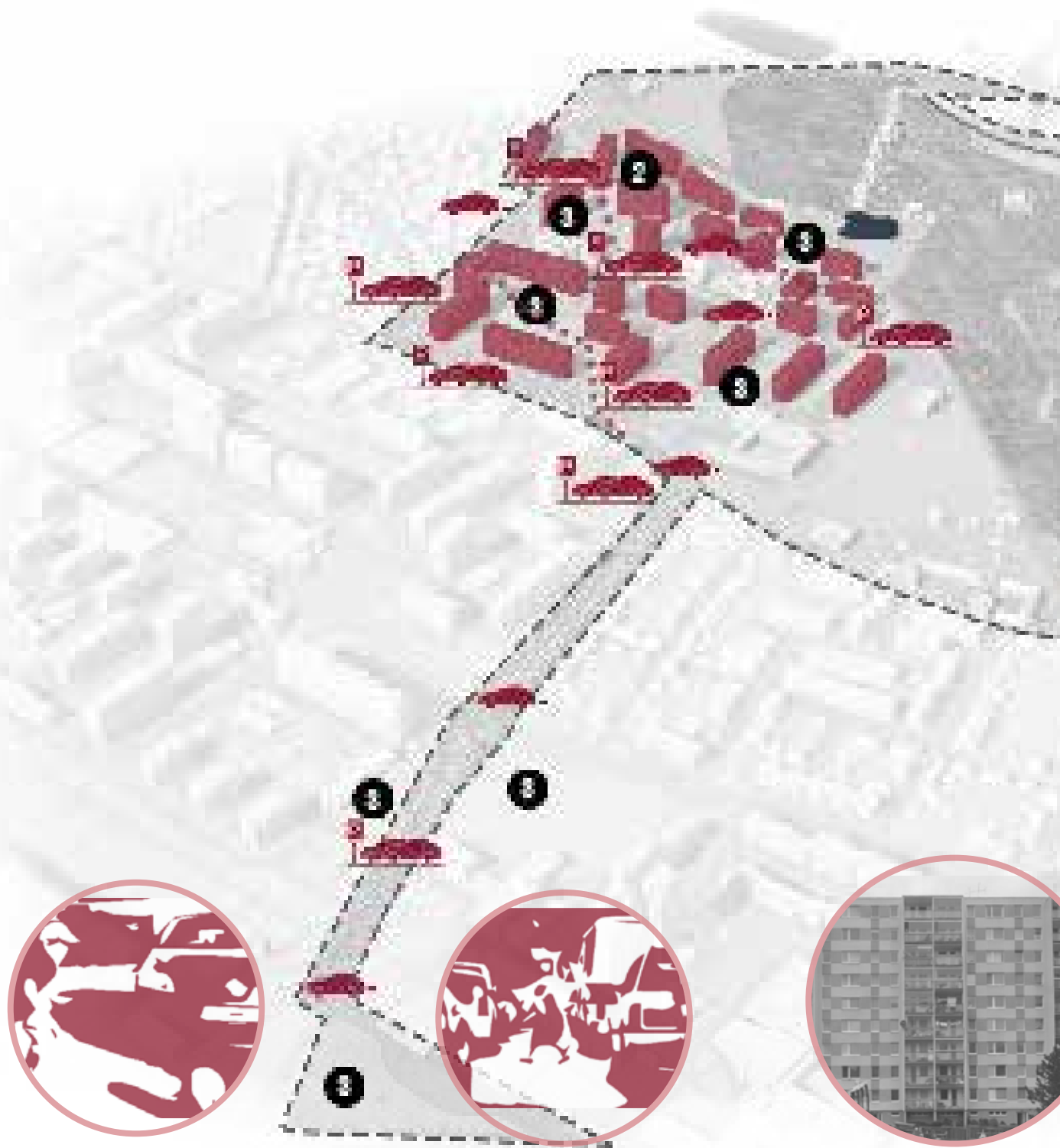
PLAYGROUNDS
PLAY FEATURES



KUNRATICE FOREST

DEN HOSTIVAŘ

LA SHULHOFFOVA



1

TRAFFIC

Mobile 

Stationary 

Infrastructure **clear hierarchy**

vegetation | play | bike | pedestrians | vegetation

+ connectivity / permeability / accessibility / proximity

2

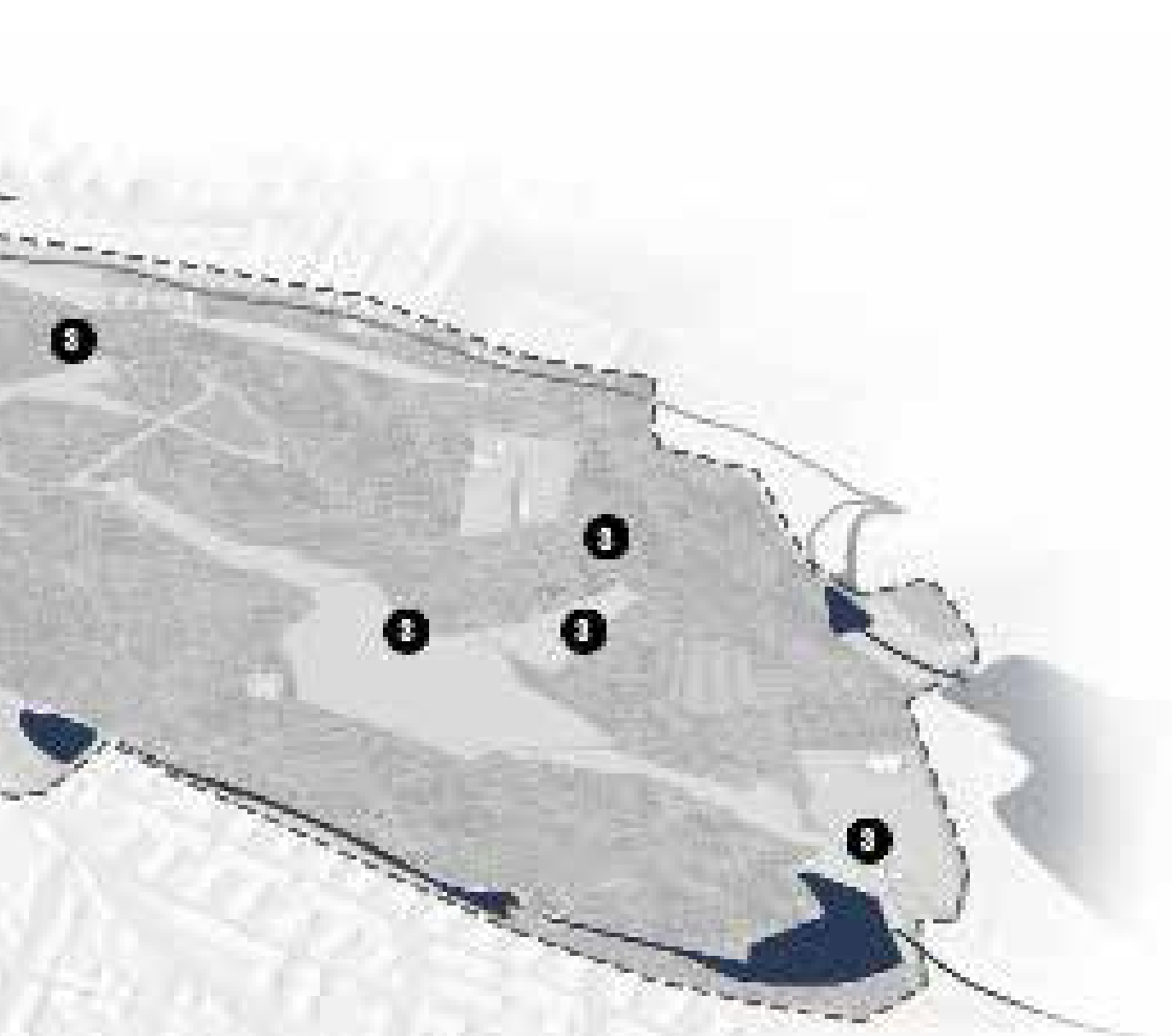
CHILDREN SCALE

**HIGH-RISED BUILDINGS
+ WIDE PUBLIC SPACE**

feeling of LOST in space **1**

needs of IDENTIFICATION in

„the higher children live the more
are from the outdoors“



7-33 m
space
e isolated they

3

PLAYSPACES

segregation and isolation - fenced playspaces
 facilities prevails only for younger children
 lack of opportunities for play outside of formal children's spaces in public space
 lack of supply of natural / acceptable risk-taking
 low maintenance of play features and vegetation
DESIGN without deeper **CONCEPT IDEA**

LEGEND

NEIGHBOURHOOD North Háje

Location A boundaries Location B boundaries

- CAR-FREE NEIGHBOURHOOD
- SCHOOL as COMMUNITY HEARTH
- CHILD-FRIENDLY TRAVEL ROUTES
- NEIGHBOURHOOD PARK SQUARE
- COMMUNITY GARDEN + NATURAL PLAYYARD
- ROADS
- PLAYABLE STREET
- PLAY(COURT)YARD
- PLAYABLE CORRIDORS
- PUBLIC SPECIAL-REGIME AREA (sport)
- PRIVATE SCHOOLYARDS / AREAS (unproposal areas)
- NATURAL BELT
- NATURAL PLAY-CORNER

FORESTPARK Hostivař

Location C boundaries

- WOODLAND with FOREST COVER
- MEADOWS
- WATER
- COMMUNITY GARDEN + ORCHARD
- PRIVATE AREAS (unproposal areas)
- ORCHARD
- CAMPING ZONE
- CHILD-FRIENDLY TRAVEL ROUTES
- SKATE and BIKERS ROUTE
- NATURE TRAIL
- FOREST PUMPTRACK and SKATEPARK
- PUBLIC SPECIAL-REGIME AREA (animals observation)
- PLAGROUND AREA
- PLAY FEATURES (in groups / bigger inclusive one)
- SAFE ACCES to WATER (+ water feature)

INFRASTRUCTURE street Prašná

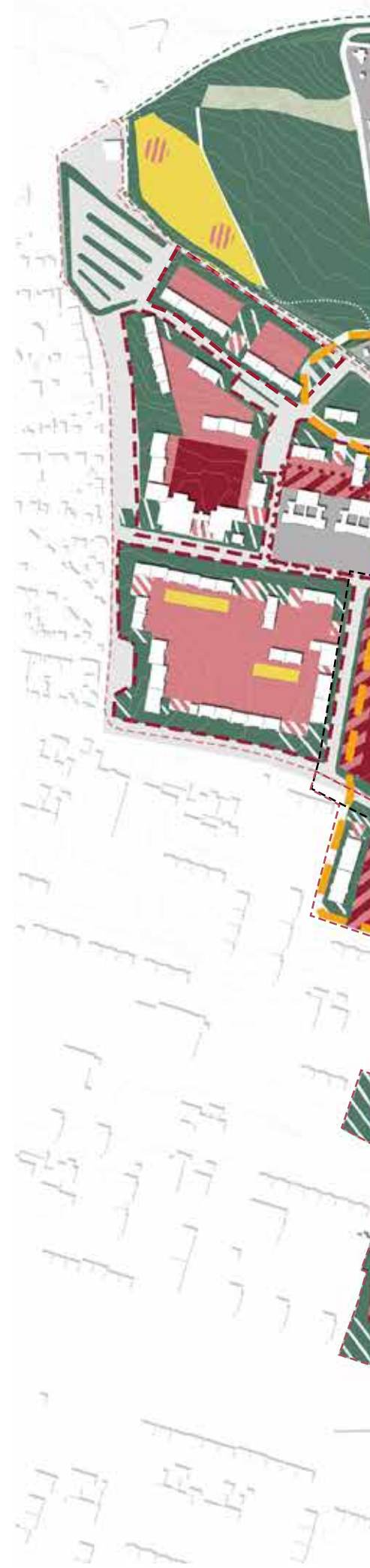
Location D boundaries

- CHILD-FRIENDLY TRAVEL ROUTES
- NEIGHBOURHOOD CENTRAL SQUARE
- PLAYABLE STREET
- ROADS
- NATURAL BELT
- NATURAL PLAY-CORNER

SUBWAY STATION Háje

Location E boundaries

- CENTRAL SQUARE
- PARK SQUARE







NEIGHBOURHOOD

location A

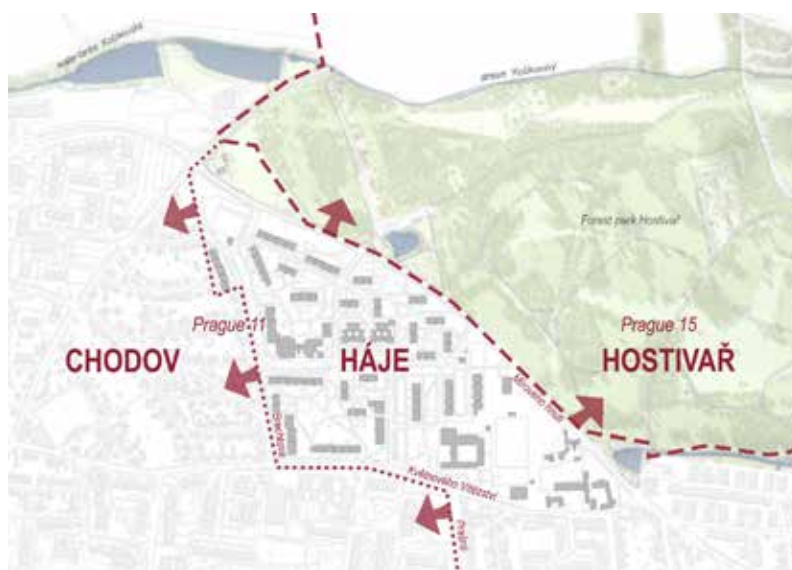


NEIGHBOURHOOD HÁJE NORTH



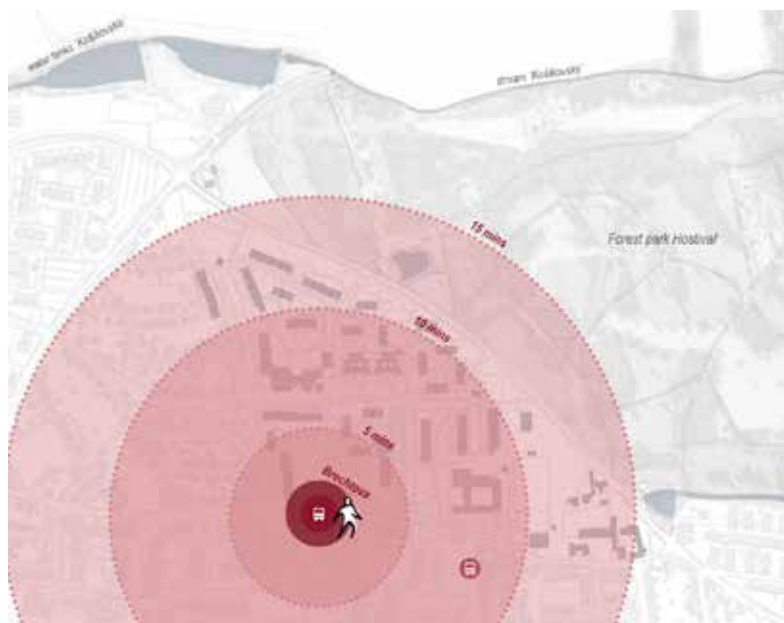
Based on the evaluation of several factors, the northern Háje neighbourhood came out as the most suitable area for the presentation of recreational space solutions for children. From the point of view of SWOT analysis, this district is permeated with problems that are also found in other districts Jižního Města I. Thus is with its new design procedures and principles, it is exemplary for the solution of them.

WIDER CONNECTIONS

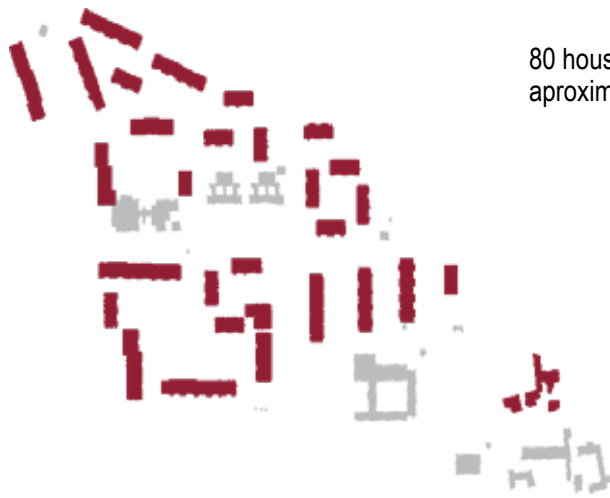


AVAILABILITY

'Brechtova' as only bus stop in the neighbourhood

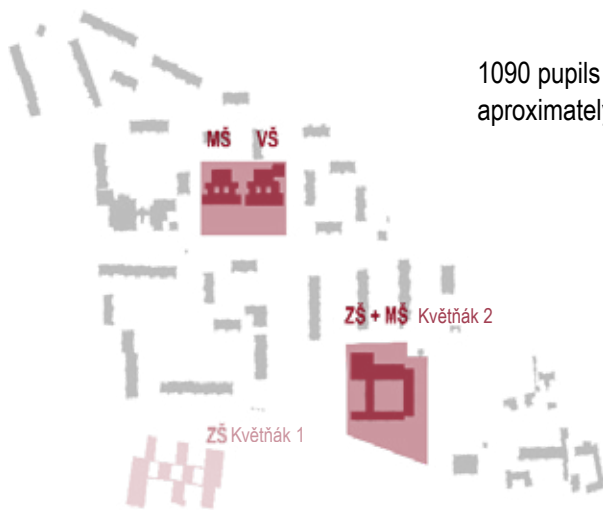


HOUSING



80 housing units
aproximaltely 4500 inhabitants

SCHOOLS



1090 pupils in Květnák 1 + 2
aproximately 200 pupils in nursery schools

OTHER FUNCTIONS related to children



MAIN STREET HIEARCHY

- 2.class
- 3.class
- main streets



P

CARPARKING

- [car icon]
- - - [car icon]



PEDESTRIANS



PEDESTRIANS x CARPARKING



LAND-USE PLAN



LEGEND

- OV - generally residential
- OB - residential
- SV - generally mixed
- VV - public facilities
- communication network
- ZMK - partially urbanized/natural areas for recreation

METROPOLITAN PLAN



LEGEND

BUILDABLE TRANSFORMATION area

- ||||| residential use

EXISTING PUBLIC ANEMITIES

- commercial amenities
- civic amenities

BUILDING BLOCKS

- existing buildings
- ▨ park in free development



STRENGTHS



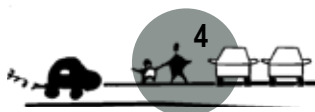
Appropriate number of playgrounds for 3-8 and for 8-15 years old children
 1.2 Range of formal sports offer (fotball, tennis, squash, judo)
 1.3 Closeness of urban park Hostivař



Sufficient size of outdoor space with prospective tree/vegetation condition



Large areas of green space / perspective condition of trees / child-scale trees
 (*Acer campestre*, *Acer platanoides*, *Quercus robur*, *Carpinus betulus*)



Good accessibility from bus stop

WEAKNESSES



Low quality of outdoor spaces...

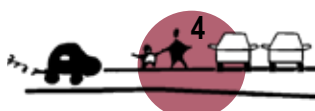
The range of play features does not support the needs of all age children groups
 The range of play facilities is dismal to boring or even unfunctional (sandpits)
 Materials of play elements, surfaces and furnishings are aging and deteriorating
 Vegetation is not included - no natural shade
 Lack of drinking water sources and toilets



Do not have adequate and attractive facilities for the number and age of schoolers
 2.1 School frontage - unused space with no function



Represent the fragmented character of the entire neighborhood
 / grassy areas dry up in the summer
 / in rainy days muddy state of pedestrian shortcuts



Network of footpaths = shortcuts leading through designated play areas
 Fragmentation of public spaces (streets, schools, squares) by traffic and parking
 Cars park wherever they can - unregulated
 Lamps in the sidewalks
 Missing crosswalks / lack of clear cycle paths, bike racks and bike hire
 / no place in the local infrastructure / poor condition
 / parked cars and mobile traffic
 Longer distance to the nearest metro station Háje



1/ urban park proximity



1/ numbers of offered playgrounds



2/ enough schoolyard space



3/ blind corner+perspective trees



1/ playground without trees-shade



2/ empty schoolyard



4/ subway groves far away



4/ carparking in the centre of neighbourhood



1/ old unfunctional sandpits



4/ shortcut throught the playground

SWOT ANALYSIS on the levels of PLAYGROUNDS, SCHOOLS, BLIND CORNERS, MOBILITY / HÁJE NORTH

O PPORTUNITIES



Situated new playspaces in inner space of courtyards, outside the traffic routes.
 Design playspaces individually, according to the character of the site.
 Composing greenery of different forms based on a deeper concept (playground story).
 Increase the supply of creative equipment for all age groups by space type.
 Increase the supply of terrain modelling - absolutely missing in the Háje North
 - conceptually in relation with the whole South Town
 Selection of appropriate materials for play elements and furnishings.
 Opening up play areas for young children from playpens to public space.
 Designation of fenced areas only for dogs.



Create composed play and recreation areas both their private spaces and those that can become accessible to the public after school hours.



Consolidation into uniform areas or their total abolition.
 Enriched with interactive and staging elements to help children identify with the space.



Arrangement of a clear street hierarchy.
 Emphasising traffic spaces frequented by children.
 Designing traffic routes safe for children and therefore for everyone else.
 Abolishing unnecessary traffic junctions in the centres of inner blocks and using their prospective green spaces to incorporate new spaces for recreation.
 Regulating parking at a basic level in two phases.

T HREATS



Dilapidation + unattractive playground equipment.
 > lack of spending time outdoor
 > more time spent with the media
 > mental health issues / obesity
 Playgrounds close to traffic (playing with a ball) risk of collision with cars.



Feelings of not looking forward to school or want to fast run away after lessons.
 Kids are going after school / congregating in dismal places / spreading drugs.



Feeling of danger, especially in the evening.



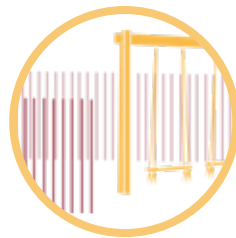
Traffic - car/cyclist/pedestrian conflict points - lack of crosswalks
 Constant and increasing street parking - lack of clarity
 > accidents



1/ every age counts



1/ terrain modellation as loving play feature and link of the site



1/ reduction of fenced playgrounds.



1/ doggie space



1/ clear street hierarchy



4

3

3

3

3

4

4

3

4

3

4

4

3

4

4

1

1

1

1

1

4

3

3

2



4/ Constant and increasing street parking



1/ Unattractive playground equipment



1 / 2/ Feeling bored...



1/ More time spent with the media

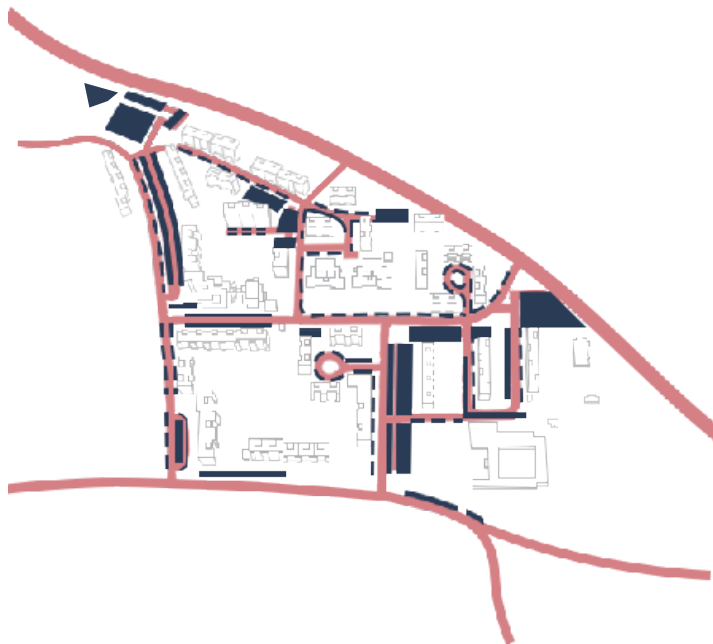


1/ Healthy issues / obesity



SWOT ANALYSIS on the levels of PLAYGROUNDS, SCHOOLS, BLIND CORNERS, MOBILITY / HÁJE NORTH

WAY to the SOFT MOBILITY CURRENT STATE



> PROPOSAL



PEDESTRIAN ZONE



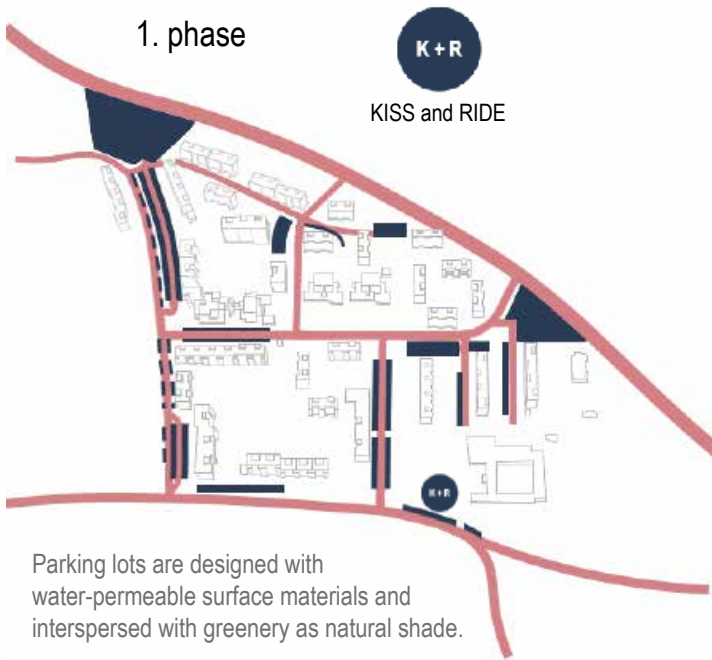
CAR-FREE CORRIDOR
entry permitted in life-threatening situations



1. phase

K+R

KISS and RIDE



Parking lots are designed with water-permeable surface materials and interspersed with greenery as natural shade.

K + R surface surface is conceived artistically

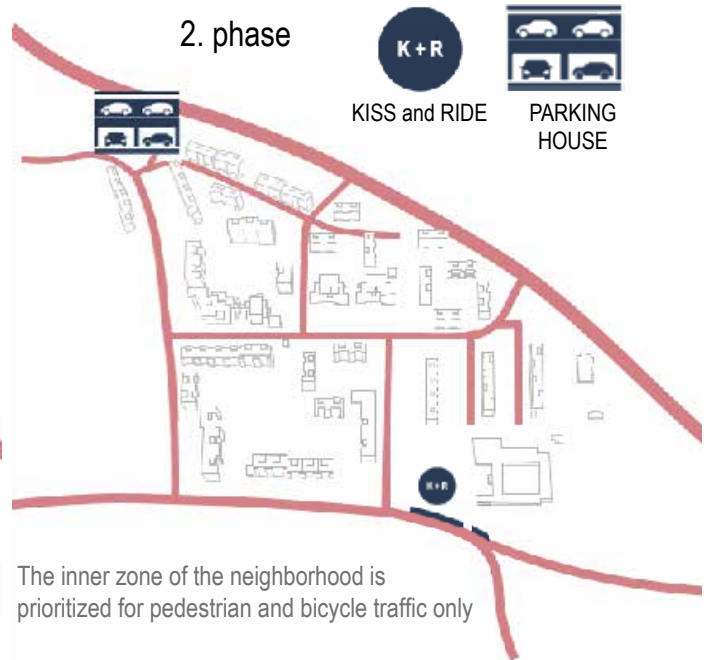
2. phase

K+R

KISS and RIDE



PARKING HOUSE



The inner zone of the neighborhood is prioritized for pedestrian and bicycle traffic only

Proposal part (playable street) is focused on 1. phase



HIEARCHY of PRIVACY

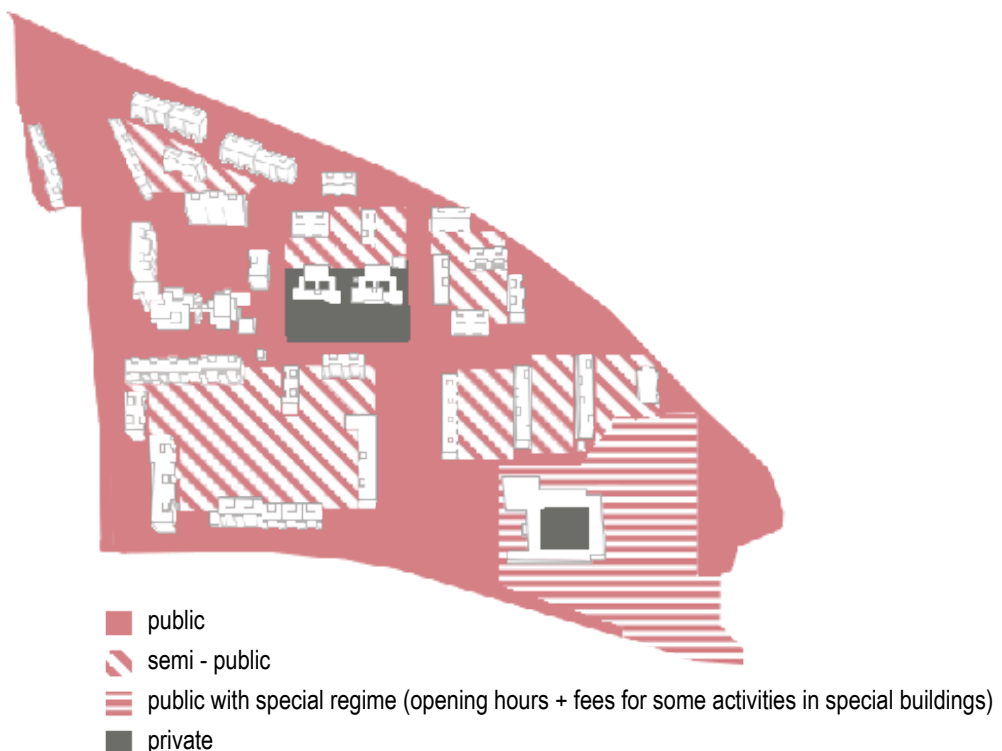
This work does not deal with private spaces (of schools) and possibly new semi-private spaces (front gardens of panel houses) in proposal part. Focuses is on the public space and its hiearchy, as the facilitator of social meetings. Defined are public, semi-public spaces and public spaces with special regimes that should enhance range of recreation offer, fulfilling childfriendly city parameters and thus strengthen the local community at the level of whole neighbourhoods.

CURRENT STATE



The intention of defining privacy hiearchy of public spaces is their public accessibility, i.e. accessibility for all age groups - children, youth, disabled, parents and the elderly - without restrictions, regardless of the form of ownership and excluding any restricted use regime except for the time regime (C3, 2014).

PROPOSAL



PUBLIC

It is the publicly accessible complex physical part of the environment, which is, in addition to public spaces, also, for example, the publicly accessible space of the exterior of the city, courtyards and the interior space of buildings (C3, 2014).

Public spaces are enlivened in the rendering of child-friendly parameters by sensitively and thoughtfully delineated places with creative playful elements that are safe and inviting for recreation from the youngest to the oldest. These places offer a program that entices people to play, learn, explore, observe others, or simply contemplate. Public space is a prime location for sharing elements and experiences with different age groups and contributes significantly to social connectedness.

SEMI - PUBLIC

These are the inner spaces of the courtyards, which become the main intimate and safe environment for the residents of the respective housing units in the proposal. Mainly due to the newly added fencing in the form of hedges, gates and composed recreational spaces for children and young people.

The spaces primarily serve residents from the adjacent apartments, but are also accessible to the general public. All users have to follow the rules resulted of participatory planning with local residents.

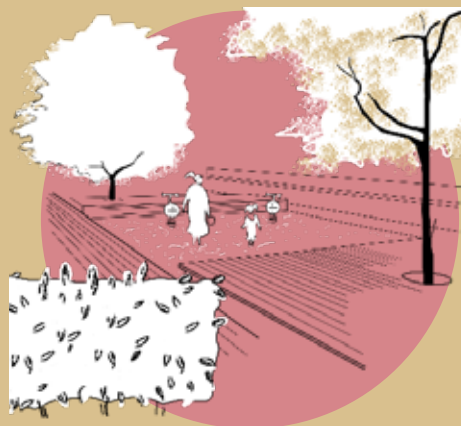
Due to the isolation of parking areas and the general presence of cars from the centres of the courtyards, the play areas for the youngest children leave the fenced character. The semi-public courtyards also include spaces for teenagers, parents and pensioners. Areas open to completely free movement / isolated for quiet contemplation / or for the community gardens.

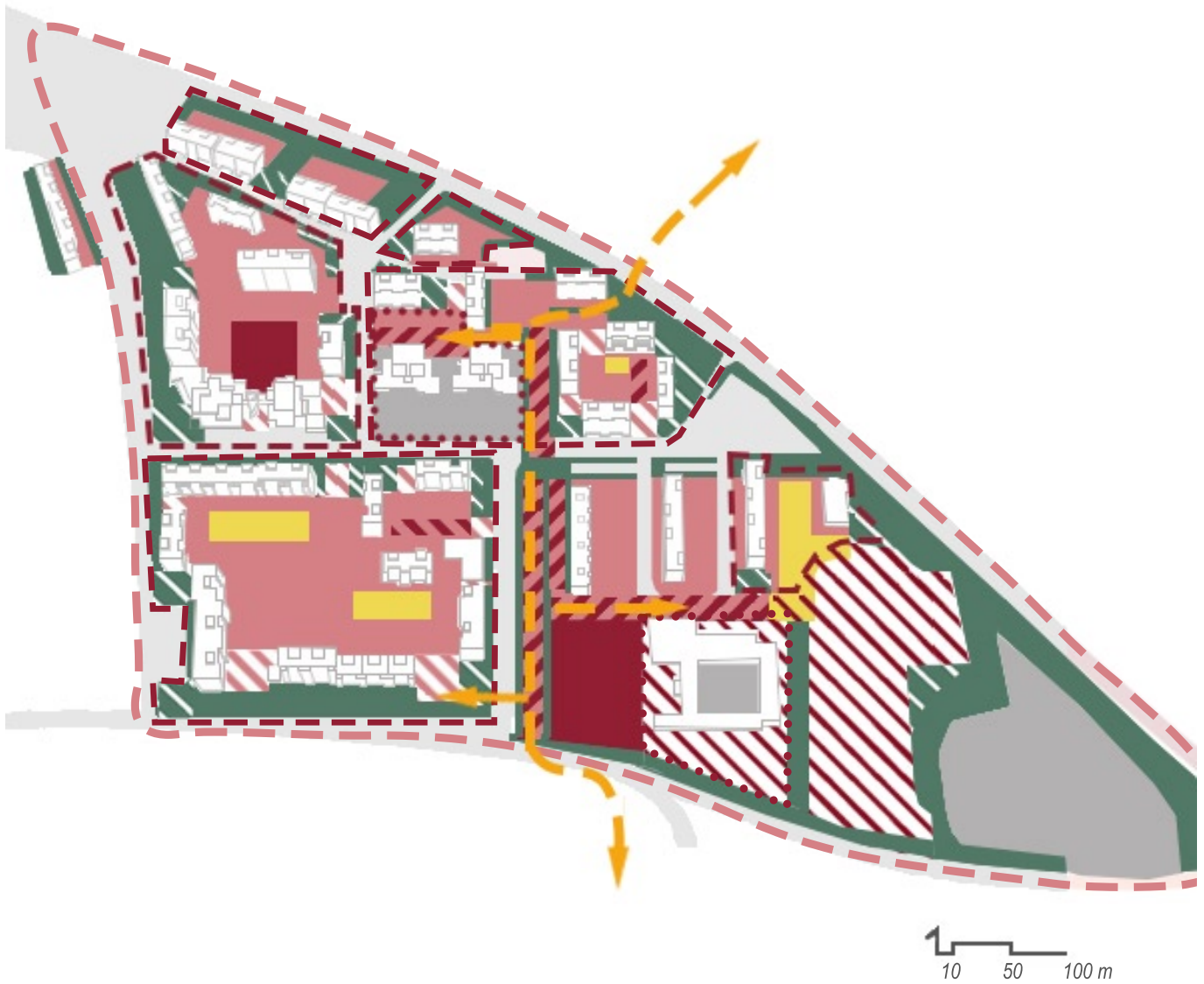
PUBLIC with SPECIAL REGIME

This is a fenced off area of private institutions - schools and sports facilities open to the public during designated opening hours (by institution).

This fenced area includes dedicated halls and pitches for various sporting activities (squash, football, tennis, joga, fitness, wellnes) for users of all ages for fee . The halls and playgrounds are interconnected by paths, greenery, furnishings and ruderal areas wich are accesible for the most part of the day for publics. These areas has potential for new use - especially in interconnection with the private school grounds and semi-public courtyards. In the proposal, the intention is for these spaces to offer new conceptually planned forms of recreation to the public, within the opening hours set by the owner.

In the proposal, a part of the original private school grounds in relation to the public space is proposed as public with special regime. These areas are open to the public after school hours until evening hours (as determined by the school).





NEIGHBOURHOOD SCALE

- boundaries of neighbourhood
- CAR-FREE NEIGHBOURHOOD
- SCHOOL AS COMMUNITY HEARTH
- CHILD-FRIENDLY TRAVEL ROUTES
- NEIGHBOURHOOD PARK SQUARE
- COMMUNITY GARDEN + NATURAL PLAYYARD

STREET SCALE

- PLAYABLE STREET
- PLAY(COURT)YARD
- PLAYBLE CORRIDORS
- PUBLIC SPECIAL-REGIME AREA
- PRIVATE SCHOOLYARDS (unproposal areas)
- NATURAL BELT
- NATURAL PLAY - CORNER



NEIGHBOURHOOD SCALE

CAR-FREE NEIGHBOURHOOD

These are defined coherent urban parts of neighbourhoods, territories bounded by soft barriers of hedges from which any presence of cars is moved from the inner central spaces of the neighbourhood to its boundaries or even further away. This area has other sub-zones in it depending on the size, arrangement of masses and the surrounding area.

SCHOOL as COMMUNITY HEARTH

Schools are the focal point for the daily gathering of all residents. Through the composite design of school surroundings, schoolyard spaces can become the heart of the whole neighborhood and provide children with a sense of pride and belonging. Residents can feel a shared sense of responsibility for the school as a community asset.

NEIGHBOURHOOD CENTER SQUARE

Quarter squares, unlike the main city square, have the potential to strengthen social networks and build community as those who live around them pass through it daily. These squares have a community character that allows for omnidirectional movement and are attractive to children and adults alike in their form and range of activities.

COMMUNITY GARDEN + NATURAL PLAYYARD

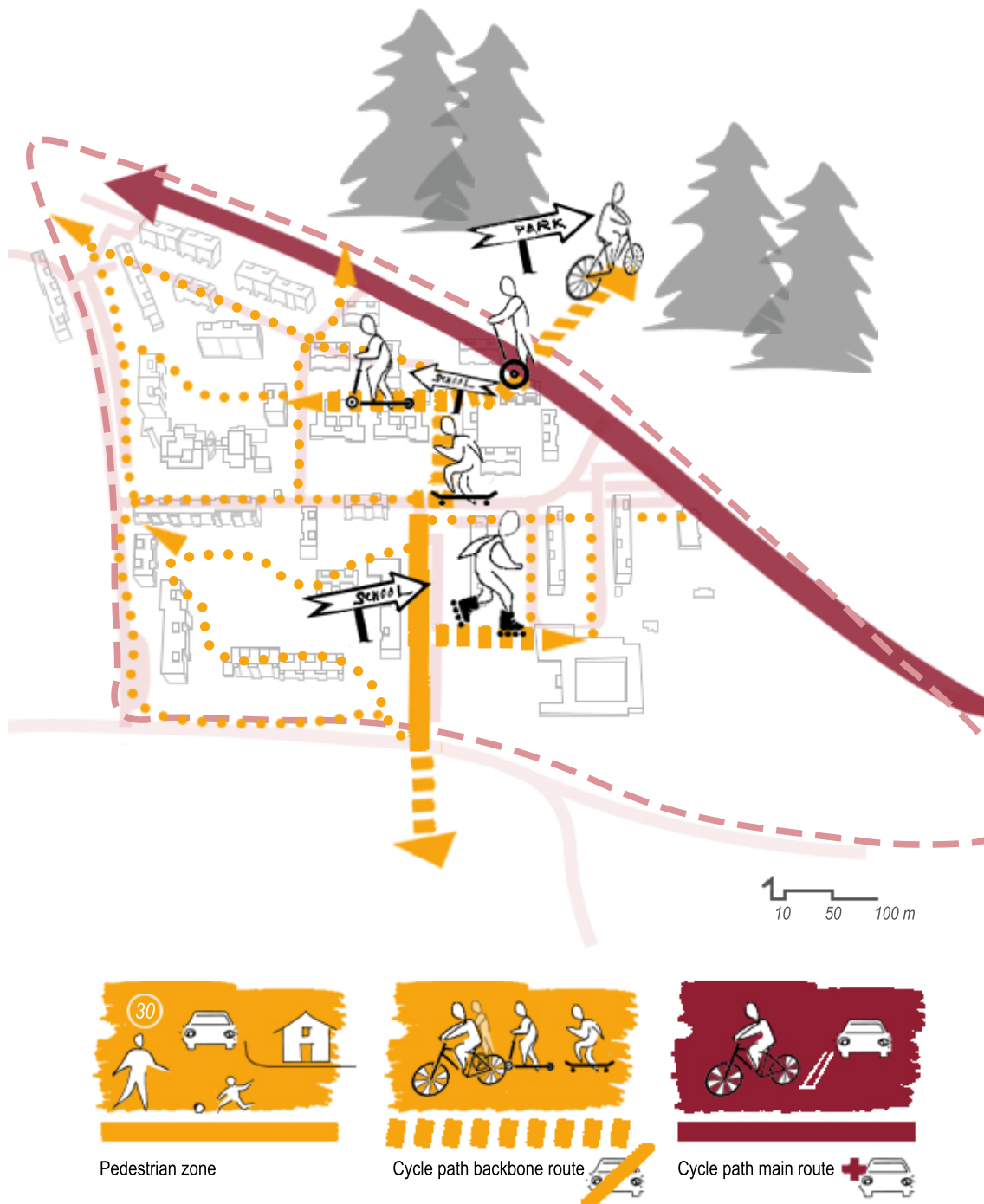
These are the community garden areas connecting the new concept of 'messy' play for children. Even at the creation of South Town, today's adult children enjoyed the building conditions of the mud and prairie. These zones delineate sunlit spaces connecting neighborhood residents to opportunities for self-production. Within the community gardens, there is a separate play area for children and youth to get their hands (and clothes) dirty, build a den, climb a tree, sit by a fire, or build an impromptu slide. Which would not be possible or acceptable in a traditional landscaped city park.

The concept takes inspiration from housing residences of Tokyo, where permanent play workers (funded by the local council) work in these spaces to facilitate play opportunities and maintain play equipment. Staffing these spaces allows children to come on their own and parents to have peace of mind that they are safe. It also means that staff can create a sense of community and an inclusive environment for all children. However, control can only work with parents having a piece of land within the community garden. There are facilities within the garden with basic sanitary facilities and a place to process crops.

CHILD FRIENDLY TRAVEL ROUTES

Childfriendly Travel Routes that enable children's active, independent mobility are a response and intervention based on the principles of a defined mobility parameter. In order to ensure that children can safely walk to school and communal play spaces, child-friendly travel routes within neighbourhoods are considered. A main path, passable for all types of vehicles, runs through the neighbourhood, connecting the neighbourhood to the north with Hostivařský lesopark and to the south with the Háje metro station. The path then branches off into secondary routes forming a through-traffic network to the schools and housing area while car traffic has new solution. Overall, it co-creates a child-friendly infrastructure across the whole area (proposal situation).

- generates the parameters of *mobility + children scale*



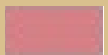
STREET SCALE



PLAYABLE STREET

These are laneways designed for everyday play - streets with extra playing facilities for children. They are wide enough streets where the movement of cars is completely excluded or limited with functioning pedestrian traffic. The streets have an asphalt surface that is ideal for movement and learning, complemented by design to distinguish quiet areas. They are complemented with playful objects and furnishings. There is passive control by pedestrians and residents of the houses. The area includes areas in close proximity to the schools, the original car lines into the courtyards, and the portion of Shulhoffova main street stretching north to the park.

- generates the parameters of **playability + close to nature + children scale + social connectedness**



PLAY(COURT)YARD

The inner area of car-free neighbourhood allows children to move from the entrance of the house to their destination without fear of traffic. A children trail runs through these yards, designed to provide a quick means to connect to a child-friendly travel route. This promotes a system of fast and safe mobility for children. The neighbourhoods are filled with passive and active recreation for all age categories of children and adults. Offers areas designated and divided (hedge boundary and signage) for dog walking (approximately 1/6 of the central courtyard area)

- generates the parameters of **playability + close to nature + children scale + social connectedness + ownership and care**



PLAYABLE CORRIDORS

„Interspaces“ that support play with a predominantly passing function. They can also be natural in character, but dominated by a paved surface with a different colour or complemented by a lighting design.

- generates the parameters of **close to nature + children scale + wayfinding**



PUBLIC SPECIAL - REGIME AREA

These spaces are offered to the public at specific times. School grounds after school hours, sports grounds according to their opening hours. Places offer a high degree of playability. They are meeting places and support the community of the whole area. There are designated areas within the grounds for growing your own produce, pupils can take them home or sell them at school events.

- generates the parameters of **playability + close to nature + children scale + social connectedness + ownership and care**



PRIVATE SCHOOLYARDS

The spaces are of the same character as the zone mentioned above, but are offered only for school users at all times.

- generates the parameters of **playability + close to nature + children scale + social connectedness**



NATURAL BELT

= space of natural character with predominant ecological and recreational function

- support passive recreation
- have a higher percentage of green space than in playable corners
- take the form of formal tree plantations with bedded undergrowth / extensive vegetation - meadows, orchards, successional areas, alleys
- areas generate a peaceful and quiet character
- complemented by furnishings and lighting
- places for walking dogs
- contributes to the formation of an interconnected green system of the city
- generates the parameter of *close to nature*



NATURAL PLAY - CORNER

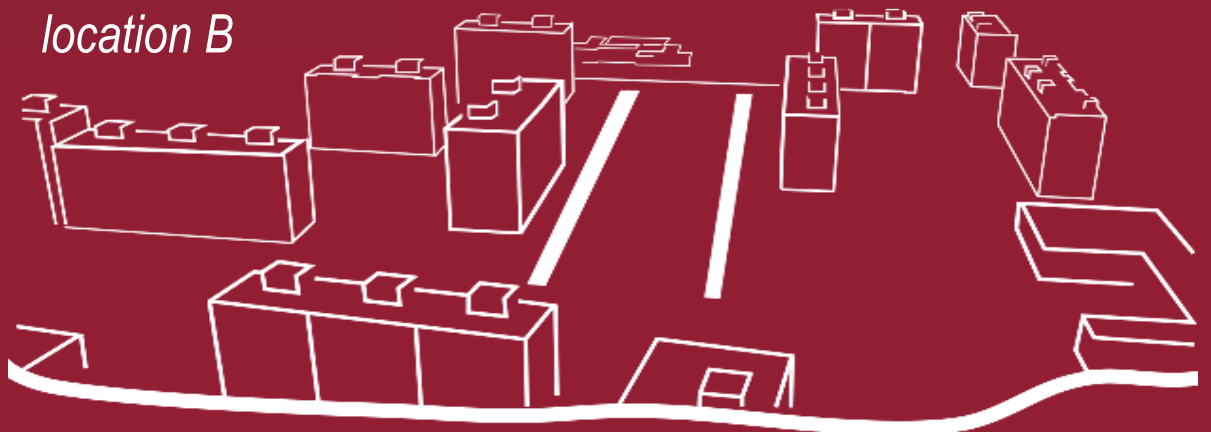
= wide space with natural character of perspective vegetation with elements for different types of play

- support active recreation - contain playful interaction elements that encourage sensory and motor skills / sculptures / playful furniture or other staging elements that encourage activity in the space
- promotes inclusiveness - there are no separate spaces for certain age groups
- children can identify with the place and know what part of the city / neighbourhood they are in
- large spaces can accommodate formal sport play areas (tennis / volejball / basketball / football), but are separated by vegetation from the nearby roadway
- contain lighting for a sense of security in the evening
- contributes to the formation of an interconnected green system of the city
- generates the parameters of *playability + close to nature + children scale + wayfinding' + social connectedness*



STREET

location B



PLAYABLE STREET

BOUNDARIES

- 1 STREET Shulhoffova is connected to the:
- 2 PARK SQUARE
- 3 SCHOOL FORECOURT.

These spaces are inextricably linked to each other in daily movement and stay of children.

The **boundaries** of the area are bordered from **the south** by Květnového vítězství street, through which major traffic routes (pedestrian, cycling) lead to the south towards Háje subway station. From the east, the boundaries are the edges of the school building only in its foreground, which is proposed as semi-public - open to the public after school hours.



The **eastern boundary** continues to wind longitudinally following the edge of the block of flats on the adjacent arm of Shulhoffova street. They continue along the street edge of the block of flats to the road boundary on Matúškova street, here boundaries break into the **northern boundaries** and form a **western link** to the **south** following the edge of the opposite block of flats.



STUDY AREA

1 STREET Shulhoffova



CURRENT STATE

The area of Shulhoff Street, which is up to 60.5 m wide, has a car parking character. They park outside the marked spaces in the pedestrian passageways, and the parking capacity is often not filled at all from 1/4.

The park square takes the form of four green units according to the pedestrian routes through which pedestrians take shortcuts. There is one bench in the square. The area does not meet the needs of a place where almost the entire neighborhood meets twice a day. There is a beautiful sculpture under the name 'Youth' from the 1980s, but it is completely suppressed by the shrubs in the area.

The front of the Flower School is a bare concrete paved area with no added value.

2 PARK SQUARE

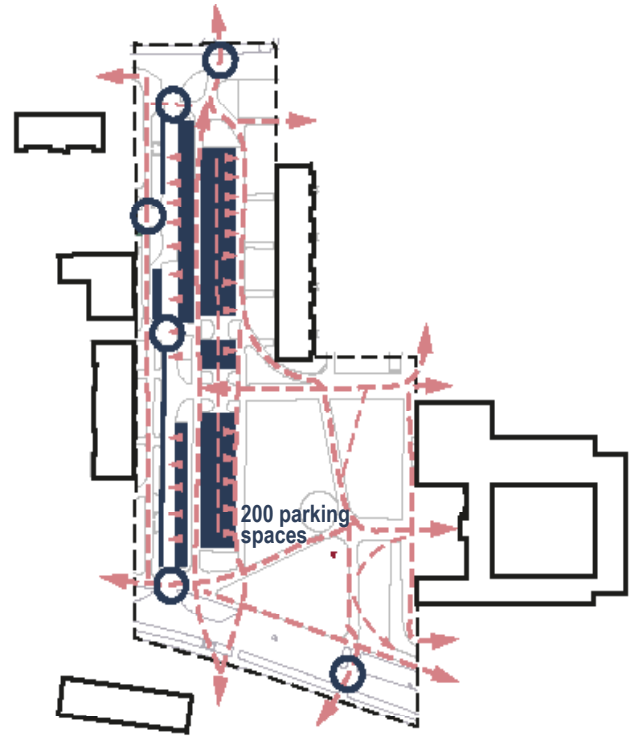
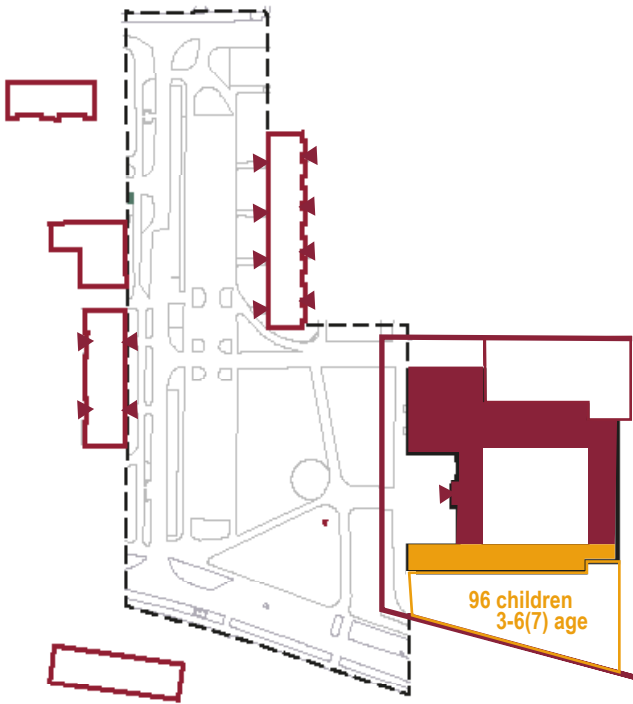


● Sculpture 'Youth' 1984
Bartoš J. + Genzer J.

3 SCHOOL FRONTYARD



CARPARKING

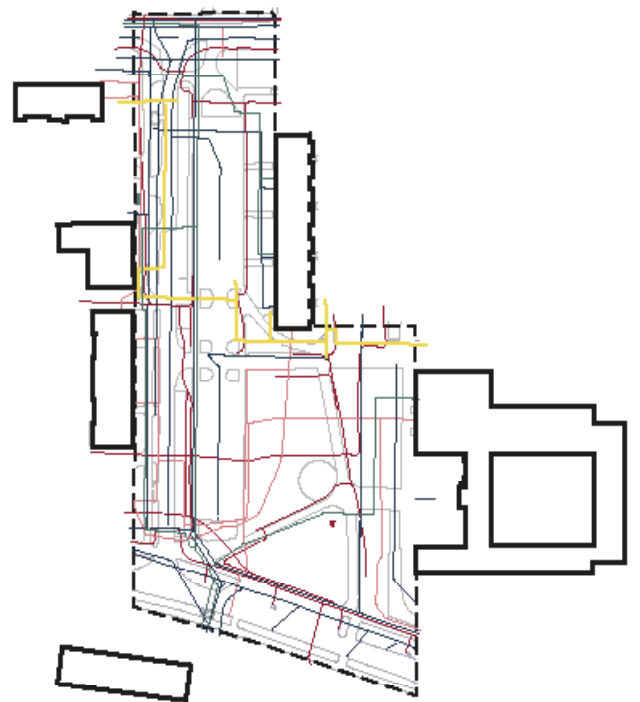
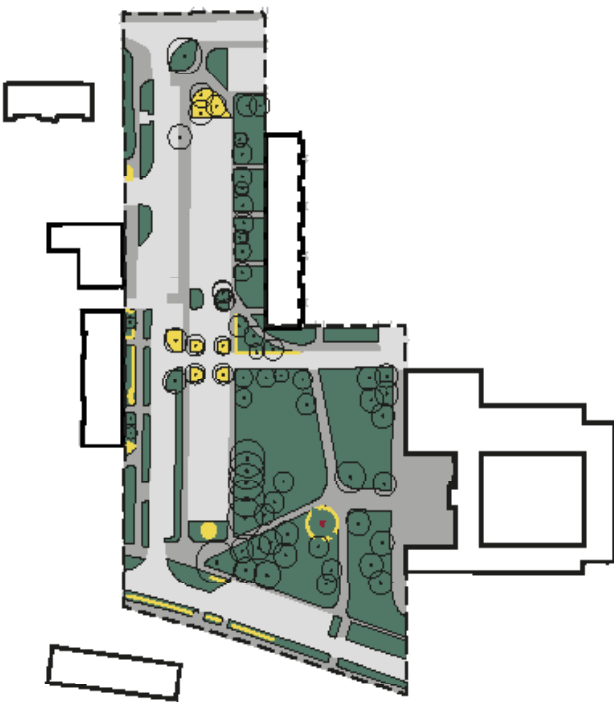


LEGEND

- ▶ entrances
- nursery school
- primary school
- housings
- outdoor area
- outdoor area

LEGEND

- pedestrians
- carparking
- crossings



LEGEND

- deciduous
- ⊗ coniferous
- bushes
- lawn
- sculpture

LEGEND

- electricity VN
- heat
- gas
- school fence
- sewage
- rain water

Terrain

A-A'

ELEVATION - 2,7 m

LENGHT - 218 m

B-B'

ELEVATION - 2,7 m

LENGHT - 60,5 m

C-C'

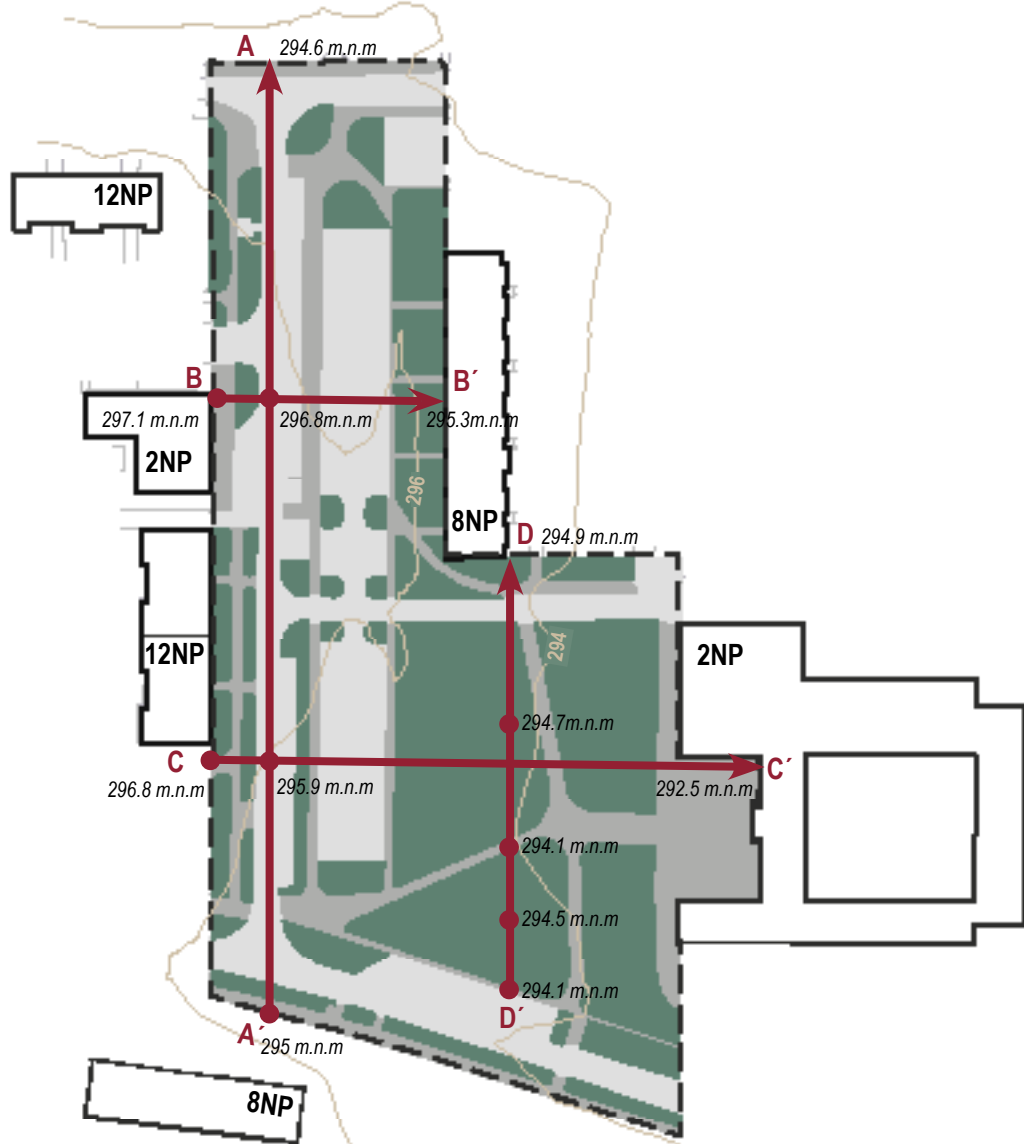
ELEVATION - 4,9 m

LENGHT - 60,5 m

D-D'

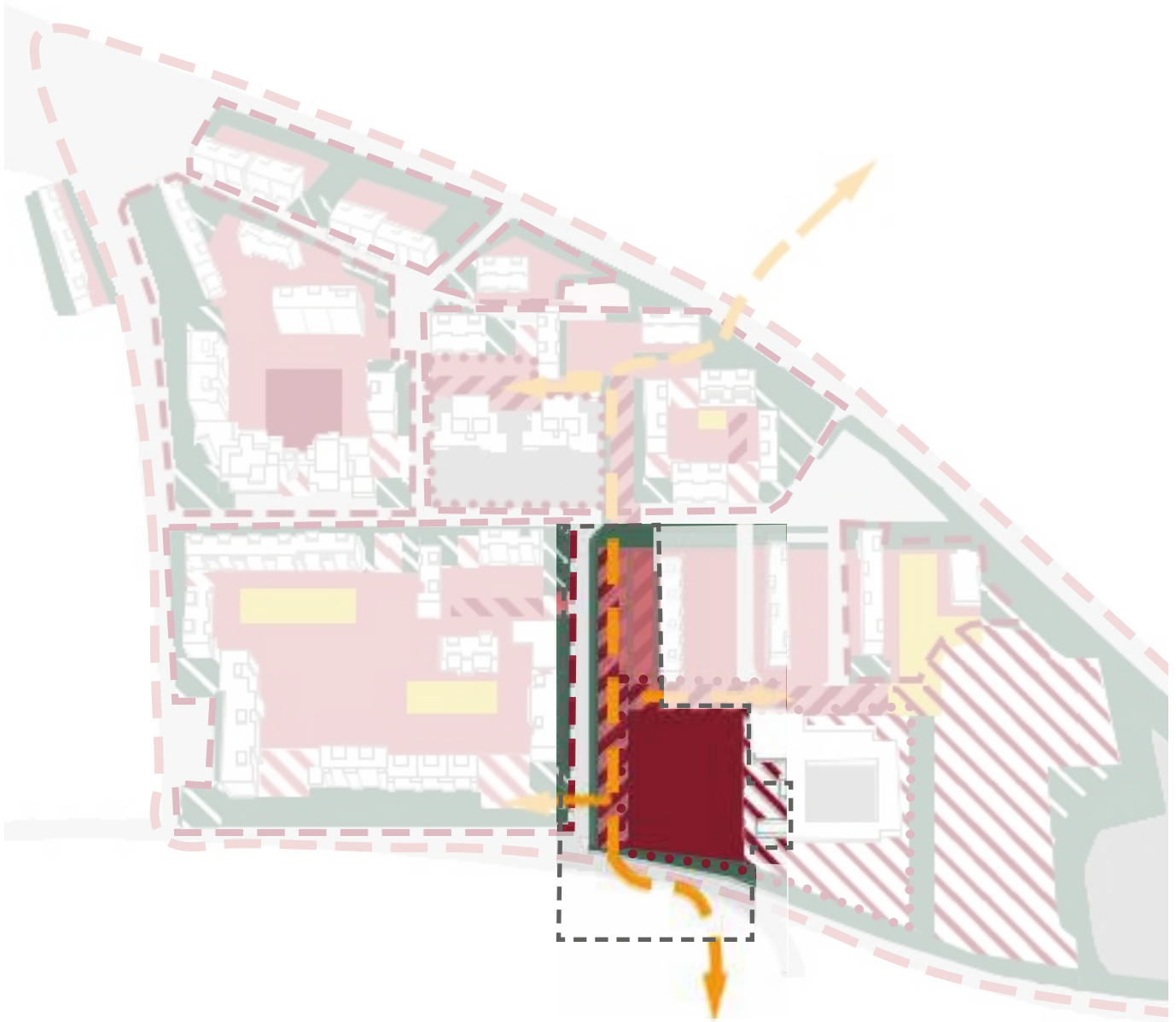
ELEVATION - 1,9 m

LENGHT - 107 m



LEGEND

- greenery
- asphalt sidewalks
- asphalt roads



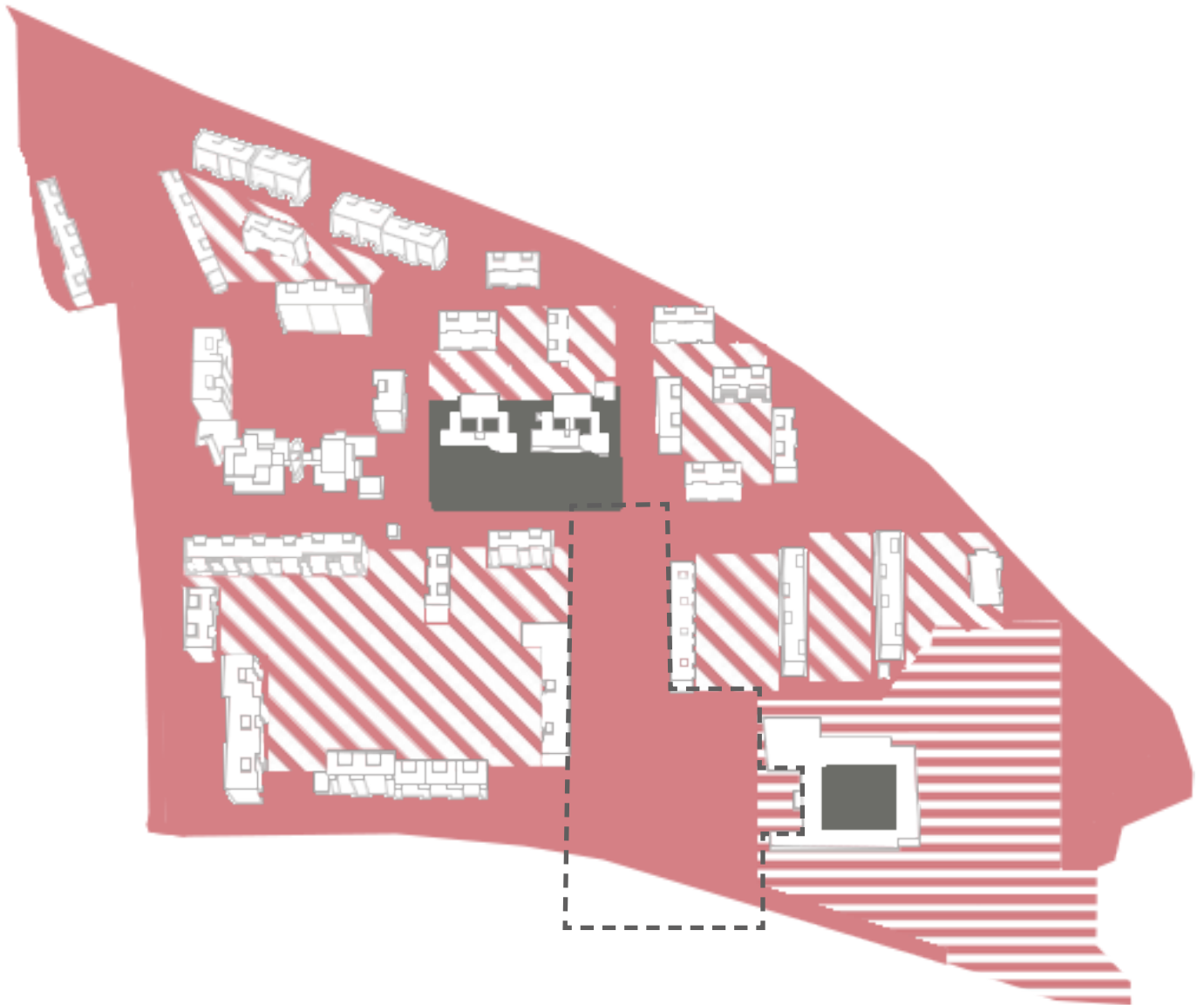
NEIGHBOURHOOD SCALE

-  childfriendly travel routes
-  car-free neighbourhood
-  school as community hearth
-  neighbourhood square
-  community garden + nature playyard

STREET SCALE

-  playable street
-  playcourtyard
-  playable corridors
-  public special-regime area
-  private areas / UNPROPOSAL AREAS
-  natural play-belt
-  nature play-corner

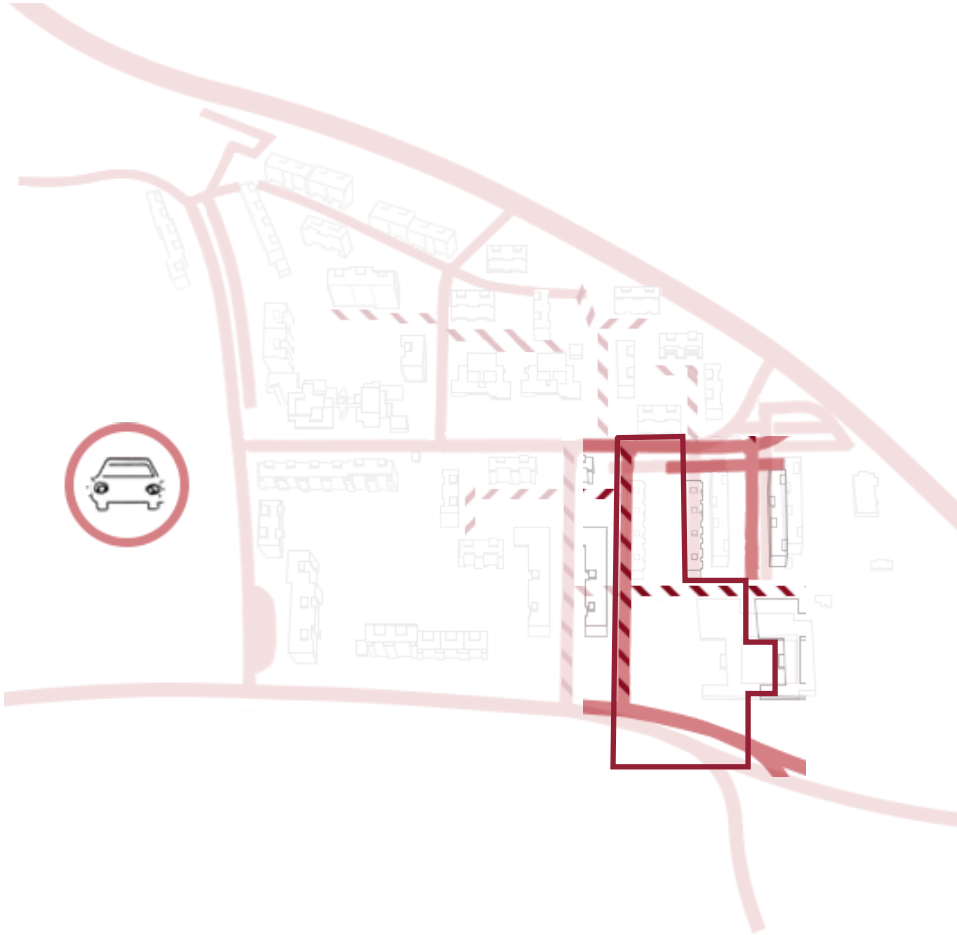
CONCEPT ZONE related to whole HAJÉ NORTH



STREET SCALE

- private
- public
- public with special regime
(opening hours + fees for some activities in special buildings)
- semi - public

MOBILITY



1. PHASE

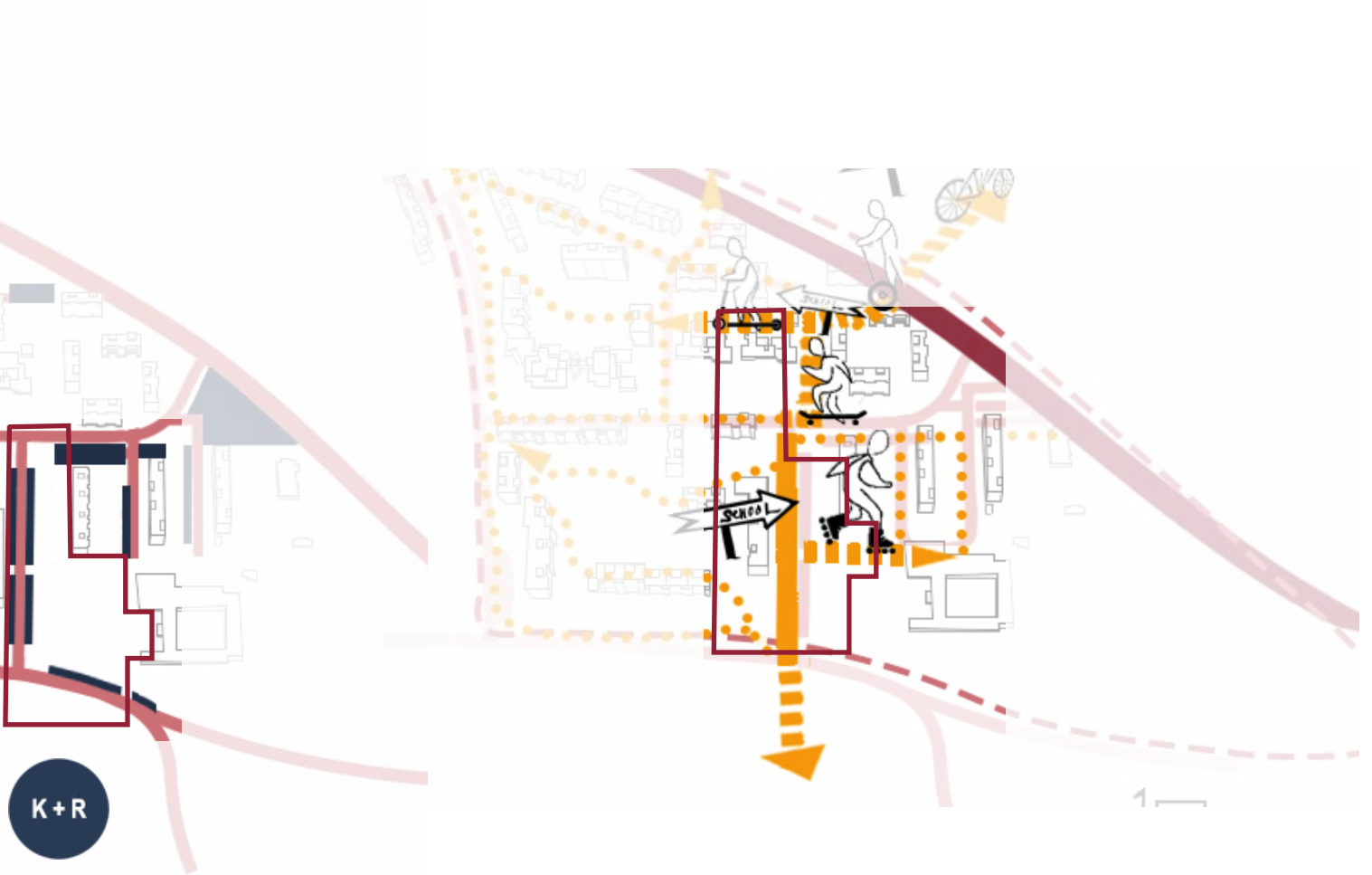


PEDESTRIAN ZONES



CORRIDOR without CARS
entry permitted in
life-threatening situations





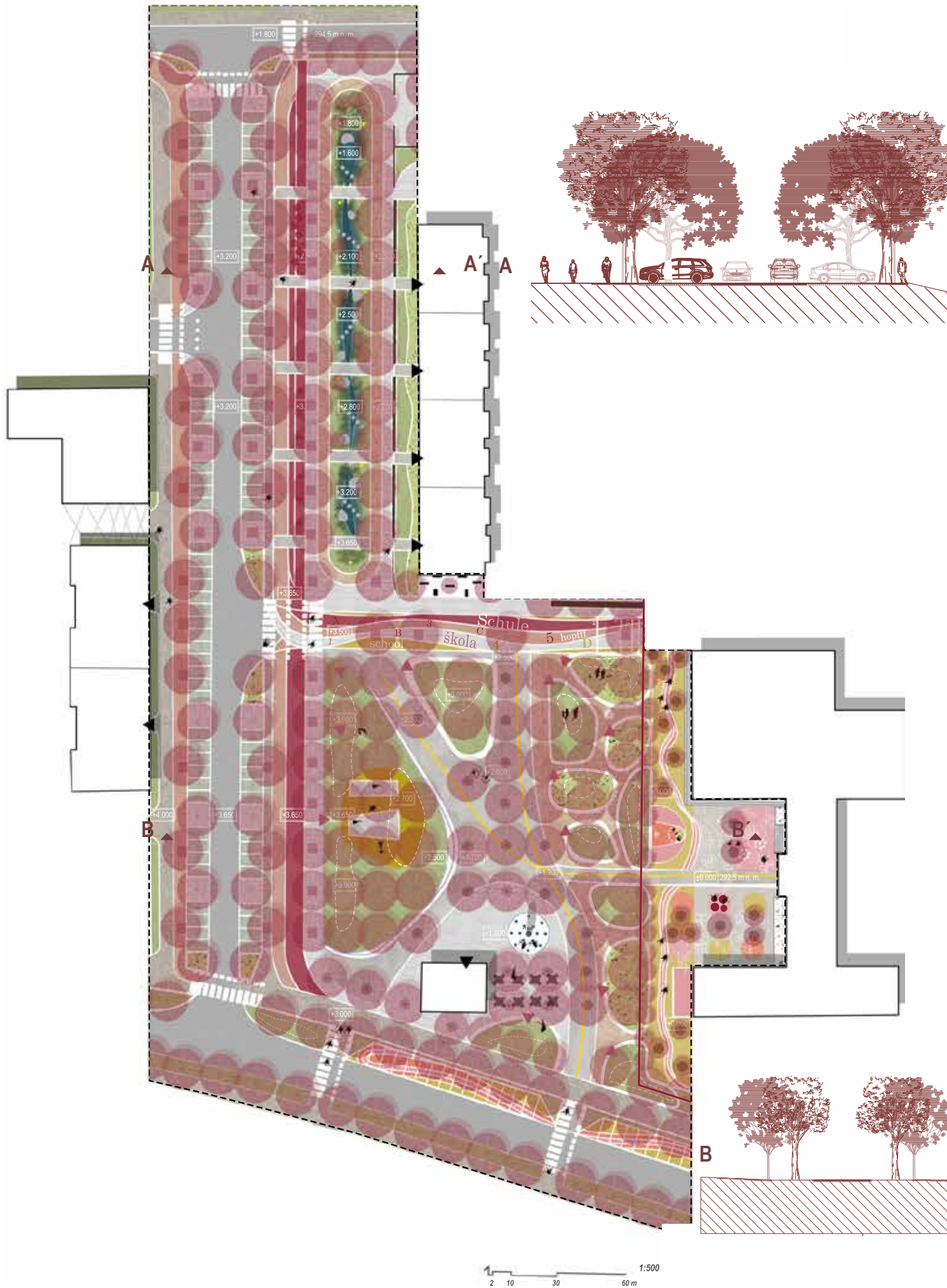
PEDESTRIAN ZONE

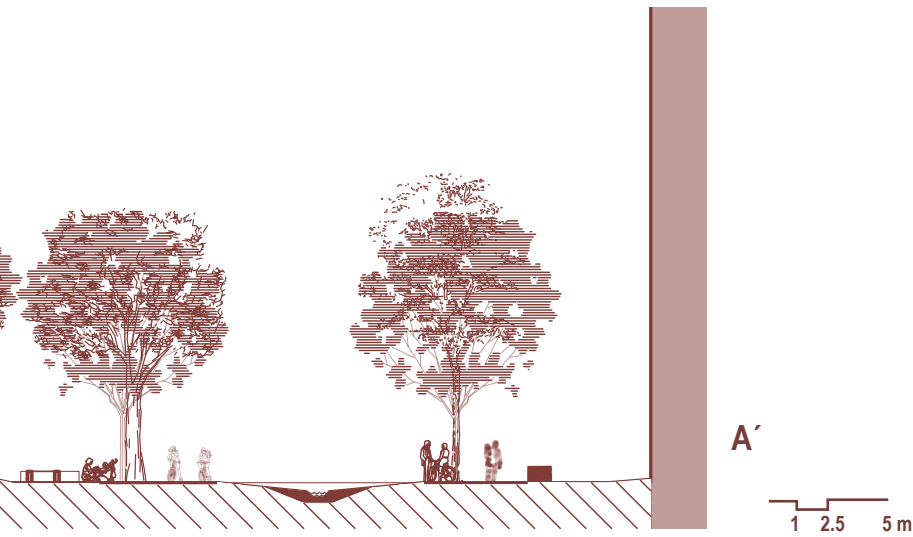


CYCLE PATH



CYCLE PATH
main road





LEGENDA

- boundaries of study area
- buildings
- school fence
- line light (level with the ground)
- spot light (level with the ground)
- sculpture "Youth" (origin situation)
- ▶ entrances
- ▶ barrier free access

Greenery

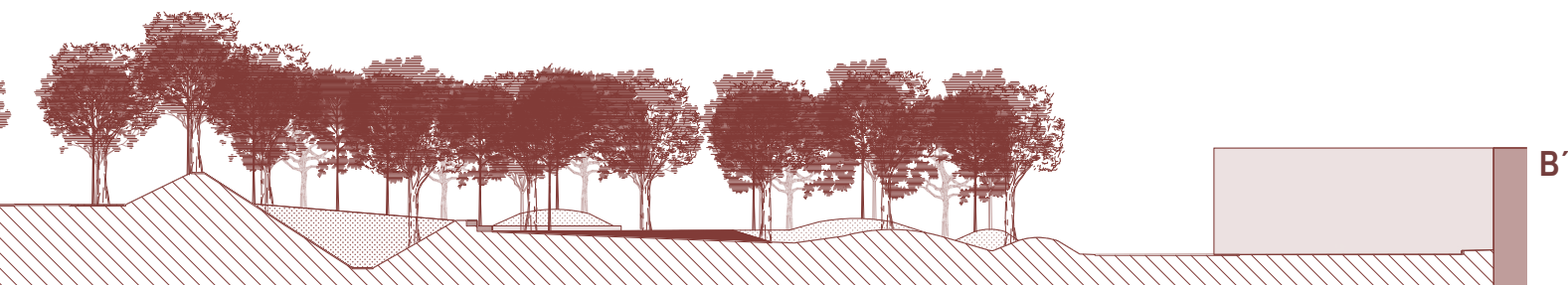
- origin trees deciduous
- proposed trees deciduous
- proposed small deciduous tree (1-3 m height)
- proposed small coniferous tree (1-3 m height)
- hedge
- perennial meadow seed mix
- mixed flower bed
- park lawn

Water element (concept on rainwater management)

- stream
- zone with gravel
- macrophytes grasses
- stones

Surfaces

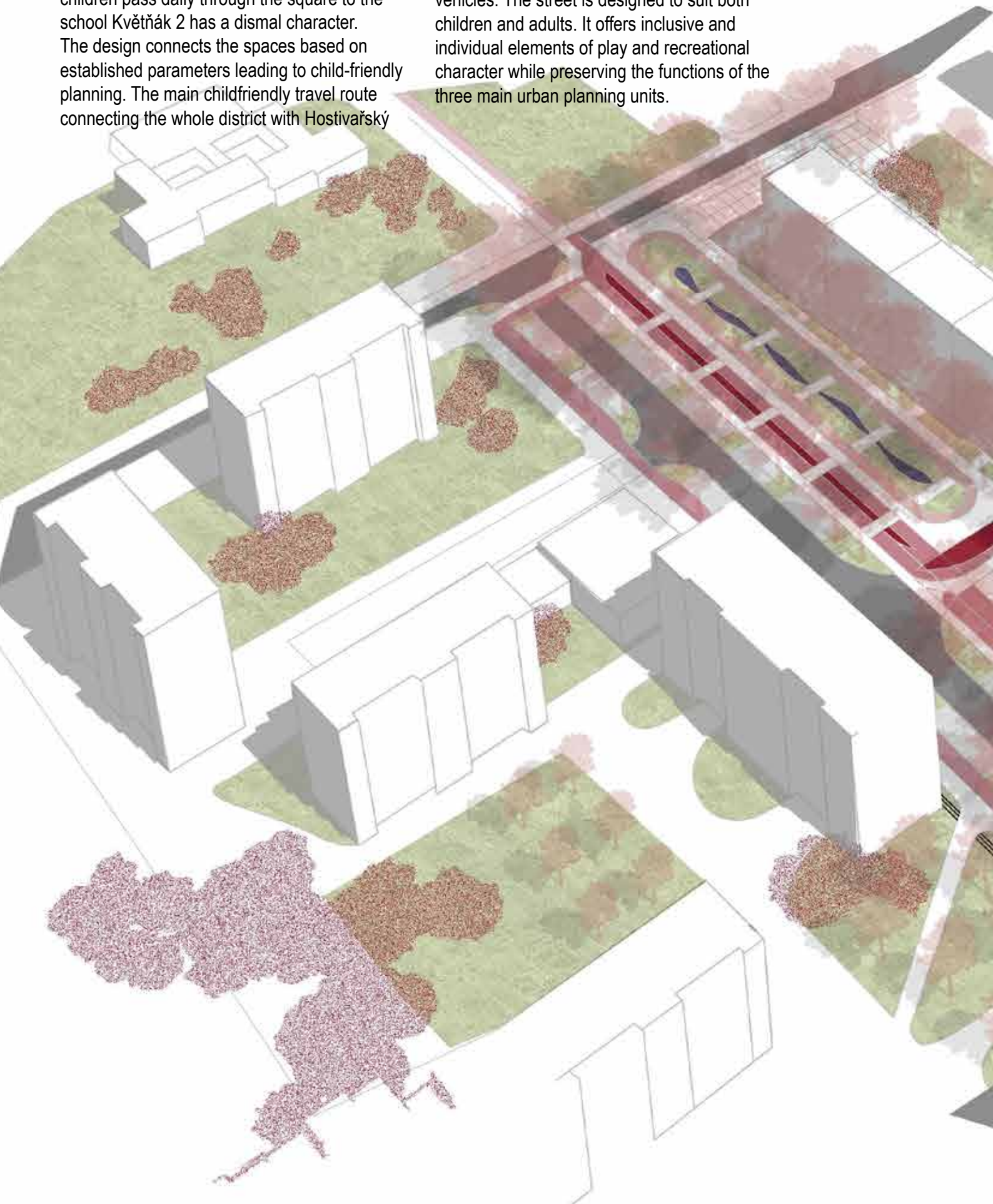
- brush concrete
- concrete paving
- grassed concrete paving
- EPDM
- cycle path - orange asphalt
- skate path - red asphalt (other wheels)
- threshing floor
- road - black asphalt

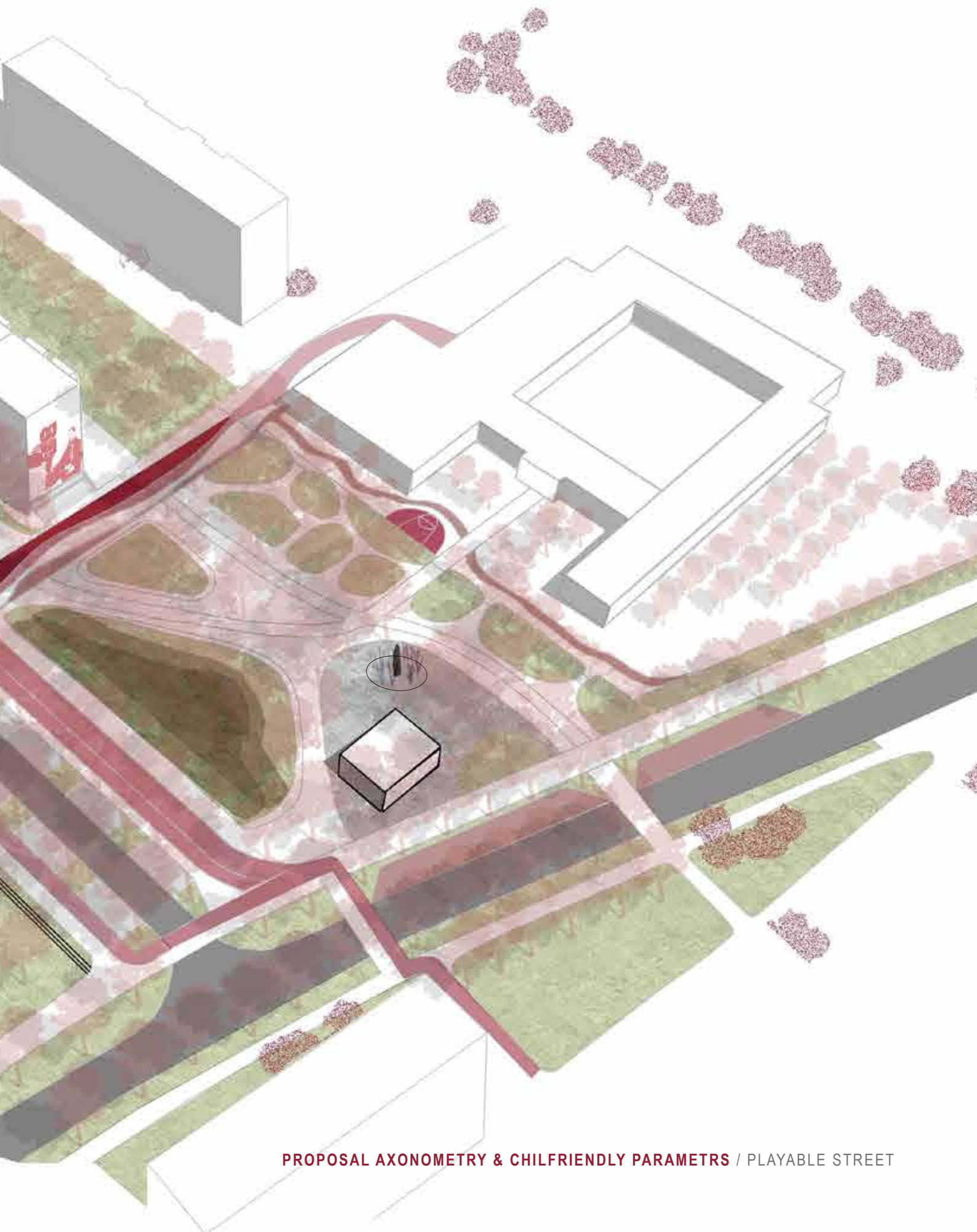


PROPOSAL

The proposed area consists of three urban units - a street, a park square and a school forecourt. The area of the street through which children pass daily through the square to the school Květnák 2 has a dismal character. The design connects the spaces based on established parameters leading to child-friendly planning. The main childfriendly travel route connecting the whole district with Hostivařský

lespark and Háje metro station runs through the area. It takes the form of two divided lanes for two-way traffic of cyclists and skaters (other vehicles). The street is designed to suit both children and adults. It offers inclusive and individual elements of play and recreational character while preserving the functions of the three main urban planning units.





PROPOSAL AXONOMETRY & CHILD FRIENDLY PARAMETRS / PLAYABLE STREET

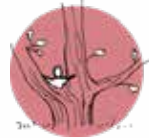
1. MOBILITY



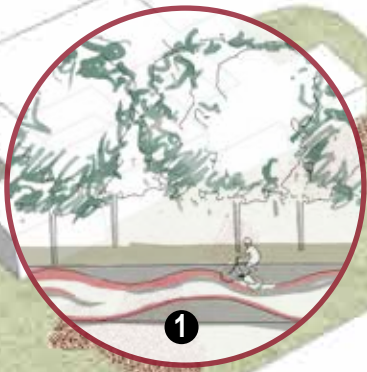
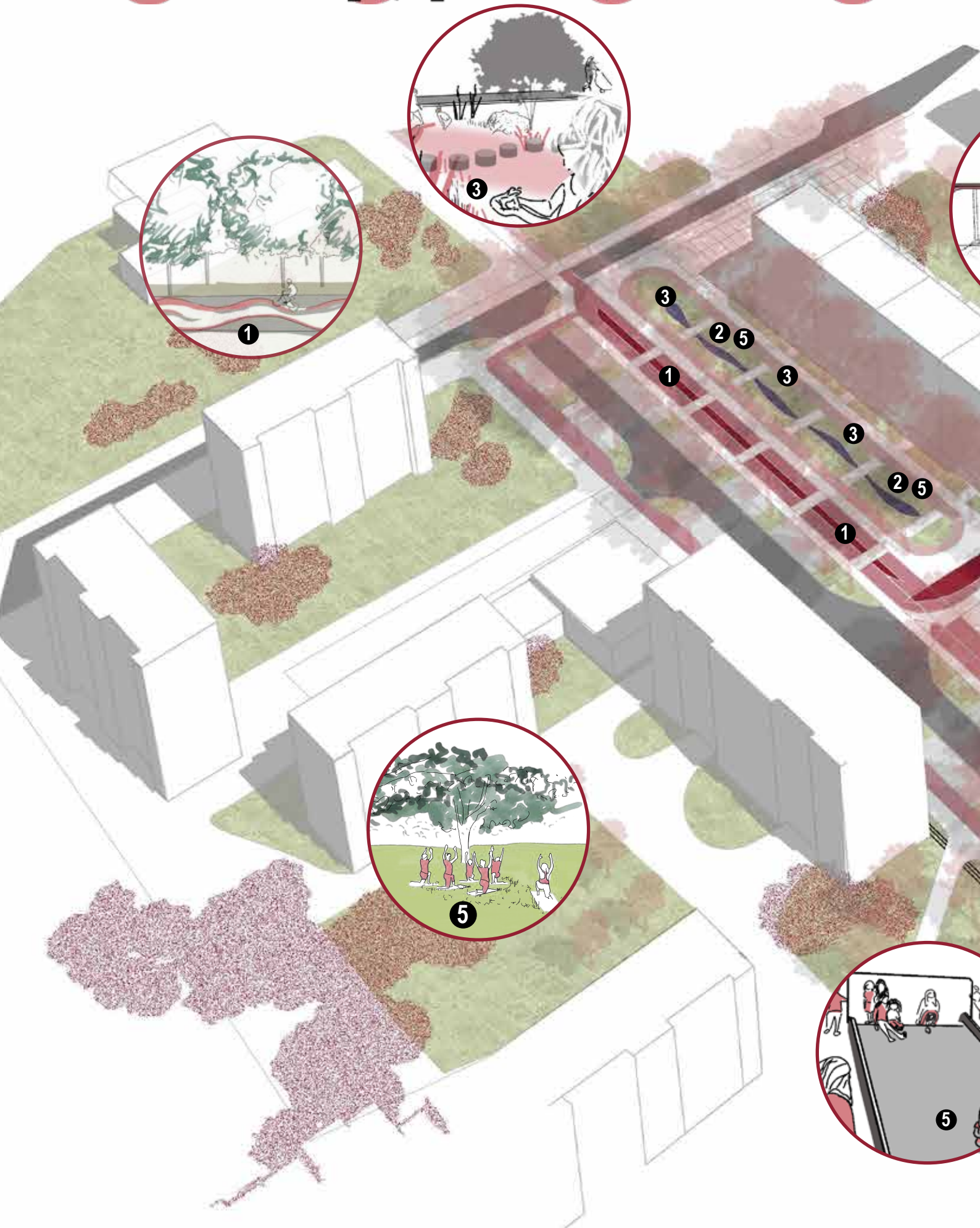
2. PLAYABILITY



3. CLOSE to NATURE



4. CHILDREN SCALE



1

3

5

5

3

2

5

1

3

3

2

5

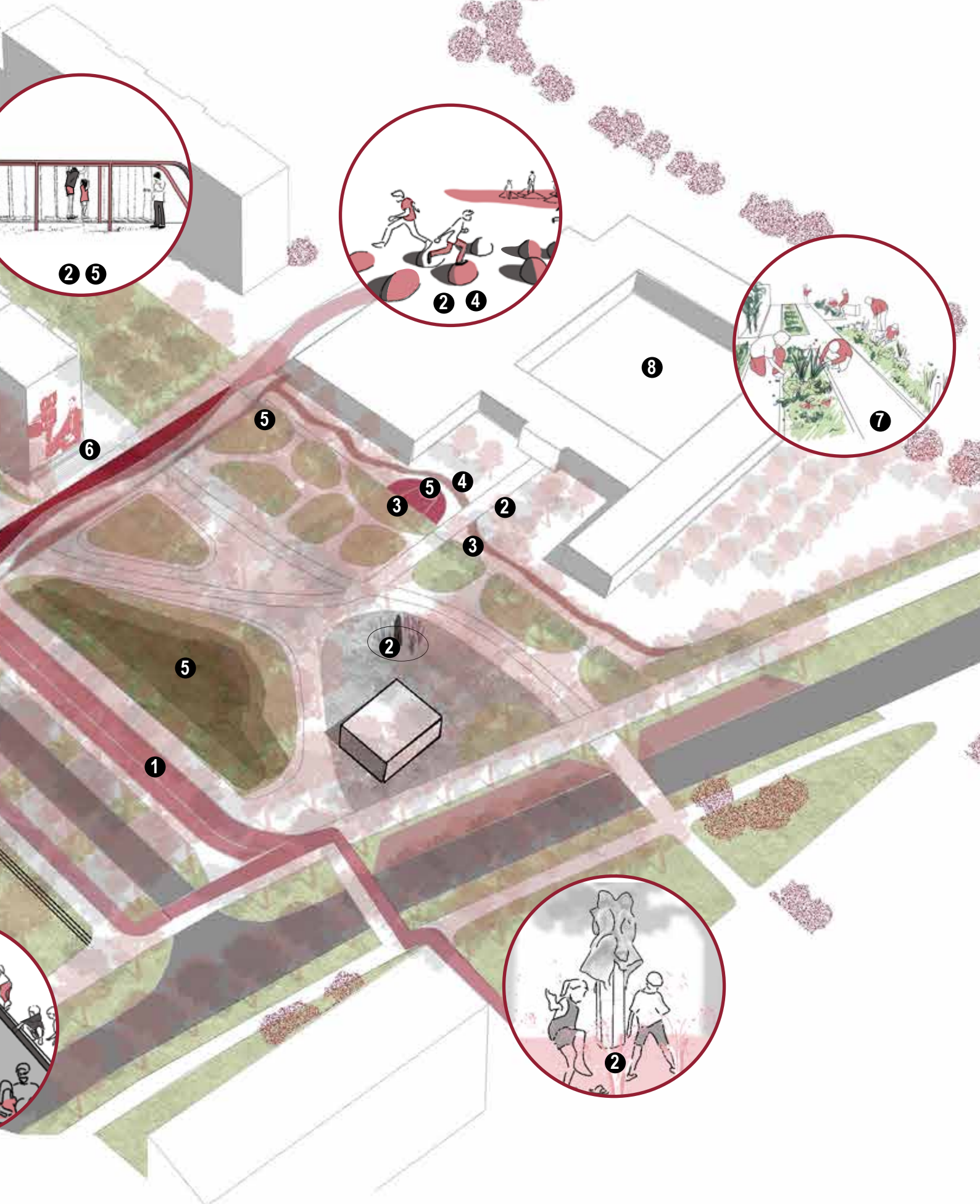
1

5. SOCIAL CONNECTEDNESS

6. WAYFINDING

7. OWNERSHIP and CARE

8. DECISION MAKING



04

Ending



ADVENTURE PLAYGROUND / Wiena / Austria / 2022 / author ©

SUMMARY _ Author's epilogue

*Vyrostla jsem na ostravsko-porubském sídlišti.
Lítám venku, na krku klíčenku, a pár kaček.
Mobil s anténou jsem sice dostala, ale co s tím.
Důležitý je vyhrát nad klukama fotbal a najít další dobře
'šplatelný' strom.*

*Stejně tak věřím, že jsou dnešní obyvatelé na pražském
Jižní Městě velmi spokojeni.
Touto prací chci však ukázat, že to jde i jinak.
Že se nemusíme zase bát poslat děti ven samotné s tím, že
se vrátí umazané.
Je důležité při návalu technogoicko-mediálních
"influencerů" pracovat s venkovním prostředím kreativně,
atraktivně až bouřlivě, a to pro všechny.*

*Po více než ročním sledování facebookové stránky obyvatel
Jižního Města (Rodiče z Jižňáku (Jižák, Jižní Město,
Praha 11) můžu říct, že obyvatelům Jižního Města na
každém novém herním pruku bez oplocení, stejně jako
na všech nových změnách velmi záleží a o jejich největší
kvalitu by se 'chtěli prát'.*

*Tato práce je snahou o jednu z inspirativních možností
oživení těchto monotonních, na místech až mrtvých
sídlíštních prostranství. A to právě na bázi potřeb, přání a
představivosti těch nejmenších.*

Těch, kteří jsou života plní.

Author's epilogue

*I grew up in the Ostrava-Poruba housing estate.
I fly outside, a key ring around my neck, and a few bucks.
I got a cell phone with an antenna, but what the hell.
The important thing is to win football against the boys
and find another good splash tree.*

*I also believe that today's residents in Prague's South
Town are very satisfied.
But with this work I want to show that it can be done
differently. That we don't have to be afraid to send the
children out alone again, knowing that they will come
back dirty. With the influx of techno-media „influencers“,
it is important to work with the outdoor environment in a
creative, attractive and even boisterous way for everyone.*

*Having followed the South Town residents' Facebook page
for over a year, I can tell you that South Town residents
care deeply about any new play element without fencing,
as well as any new changes, and would 'want to fight' for
their greatest quality.*

*This work is an attempt to provide one of the inspirational
opportunities to revitalise these monotonous, in places
almost dead, estate spaces. And it is based on the needs,
wishes and imagination of the little ones.*

Those who are full of life.

Poděkování

*Mé veliké díky patří vedoucím mé diplomové práce.
Děkuji za Klářinu a Tillovu bezednou studnu podpory a rad
při navrhování, po celou dobu mého magisterského studia.*

*Velmi děkuji také paní doktorce architektce Mirjaně Petrik
za její podnětné rady a připomínky k vývoji mé práce .*

Bez podpory mé rodiny a přátel by tato práce nevznikla.

Děkuji Vám.

Acknowledgements

*My big thanks belongs to my master thesis supervisors.
Thank you for Clara and Till's bottomless well of support
and advice throughout my Master's studies.*

*I am also very grateful to Mirjana Petrik, PhD
Architect, for her insightful advice and comments on the
development of my thesis.*

*Without the support of my family and friends, this thesis
would not have been possible.*

Thank you.

RESOURCES

Introduction

STUDY WORKS

C1/ PETRIK, Mirjana. DĚTI A MĚSTO: VEŘEJNÝ PROSTOR MĚSTA S OHLEDEM NA DĚTI A MLÁDEŽ. Praha, 2019. Dissertation work. ČVUT. Vedoucí práce Šestáková Irena.

INTERNET

URL/ Everyday freedoms, and the networks to enjoy them [online]. England: childinthecity.org, 2017 [cit. 2023-05-17]. Dostupné z: <https://www.childinthecity.org/2017/12/11/everyday-freedoms-and-the-networks-to-enjoy-them/>

URL1/ A good way to measure a city is how well it treats its children [online]. India: Fastcoexist.com, 2017 [cit. 2023-04-22]. Dostupné z: <https://www.childinthecity.org/2017/01/17/a-good-way-to-measure-a-city-is-how-well-it-treats-its-children/>

BOOK

B1 GEHL, Jan. Města pro lidi. České vyd. Brno: Nadace Partnerství, c2012. ISBN 978-80-260-2080-6.

Parameters

1. Mobility

URL2/ Rotterdam, city with a future. How to build a Child Friendly City. In: Docplayer [online]. Rotterdam: Veenman Drukker, 2010 [cit. 2023-05-20]. Dostupné z: <https://docplayer.net/34800827-Rotterdam-city-with-a-future-how-to-build-a-child-friendly-city.html>

A1/ MARZI, I & REIMERS, A. Children's Independent Mobility: Current Knowledge, Future Directions, and Public Health Implications, 2018. Retrieved from: <https://www.mdpi.com/1660-4601/15/11/2441>

ZIMMERMANN, Astrid. Planning landscape: dimensions, elements, typologies. Basel: Birkhäuser, [2015]. ISBN 978-3-0346-0761-2.

2. Playability

B2/ OPRAVILOVÁ, Eva & Vladimíra GEBHARTOVÁ. Rok v mateřské škole: Kurikulum předškolní výchovy. Praha: Portál, 2003. ISBN 80-7178-847-3.

A4/ The Good Childhood Report 2020 [online]. In: . UK: © The Children's Society, 2020, s. 49 [cit. 2022-12-23]. Dostupné z: <https://www.childrenssociety.org.uk/sites/default/files/2020-11/Good-Childhood-Report-2020.pdf>

3. Close to nature

B3/ FABER TYLOR, A., WILEY, A., KUO, F., E., SULLIVAN, W.C. (1998). Growing up in the Inner City: Green Spaces as Places to Grow. Environment & Behaviour.

MACHOVEC, J. Výběr rostlinného materiálu pro dětská hřiště. In: Dětská hřiště v sadovnické tvorbě. Sborník přednášek ze semináře. Pardubice : Dům techniky ČSVTS, 1987. s 44-53

HLAVNÍČKOVÁ, Zuzana. Hřiště, nebo park? [online]. Brno: ZEMĚDĚLSTVÍ PŘÍRODA, 2017 [cit. 2023-05-20]. Dostupné z: <https://www.enviweb.cz/62929>

ZIMMERMANN, Astrid. Planning landscape: dimensions, elements, typologies. Basel: Birkhäuser, [2015]. ISBN 978-3-0346-0761-2

4. Children scale

ZIMMERMANN, Astrid. Planning landscape: dimensions, elements, typologies. Basel: Birkhäuser, [2015]. ISBN 978-3-0346-0761-2

URL3/ A playground built to scale for children [online]. South African: Design Indaba, 2020 [cit. 2023-05-25]. Dostupné z: <https://www.designindaba.com/articles/creative-work/playground-built-scale-children>

5. Social connectedness

D1/ ŽIVOT JE HRA: sto let Zdeňka Matějčka [movie]. Režie: Veronika Korčáková-Sobková. Czech Republic, 2022

C1/ PETRIK, Mirjana. DĚTI A MĚSTO: VEŘEJNÝ PROSTOR MĚSTA S OHLEDEM NA DĚTI A MLÁDEŽ. Praha, 2019. Dissertation work. ČVUT. Vedoucí práce Šestáková Irena.

URL4/ Ways to Improve Social Connectedness [online]. USA: National Center for Chronic Disease Prevention and Health Promotion, 2023 [cit. 2023-05-25]. Dostupné z: <https://www.cdc.gov/emotional-wellbeing/social-connectedness/ways-to-improve.htm>

6. Wayfinding

URL4/ How children navigate and find their way. BrandCulture [online]. Australia: © BrandCulture Communications, 2022, 12.1. [cit. 2022-12-20]. Dostupné z: <https://brandculture.com.au/children-wayfinding-design/>

7- Ownership and care

8. Decision making

C1/ PETRIK, Mirjana. DĚTI A MĚSTO: VEŘEJNÝ PROSTOR MĚSTA S OHLEDEM NA DĚTI A MLÁDEŽ. Praha, 2019. Dissertation work. ČVUT. Vedoucí práce Šestáková Irena.

Maps

<https://app.iprpraha.cz/apl/app/model3d/>

<https://app.iprpraha.cz/apl/app/ortofoto-archiv/>

<https://app.iprpraha.cz/apl/app/vykresyUP/>

<https://plan.praha.eu/>

