

Body Space Development

Why should space
interact dynamically
with our physical
movement?



Photo: tubeClothes_spaceClothes for spacial games. Stuefer 2013

First of all – don't worry: You don't need a lot of space resources and expansive environments, but you do need to know what you need.

And second of all – be aware that what you really need is on top of your priority list.

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Photo: Asphalt-desert –part of our pattern of behavior. Fotos Stuefer Vienna 2015

Urban space: a static desert

Because, if we want to talk about the needs of young people we have to think about our lifestyle first. Apartments, schools and cities are sterile like an operating theatre – flat, empty and much too tidy. They are static deserts. They work like an antibiotic, working against life, by trying to minimise the area of contact with the environment and avoid exertion. Distortions in perception are the type of allergy which results. Our biological immune system can't learn and develop any response.

Children take on our structures and patterns, our attitudes to life: they live with us in our cities and our cultures on the earth. We have to take a critical look at our society, and find ways to create conditions in which our children can educate themselves, freely, and happily. The rooms which we pass on to our children are not part of our genetic makeup, they are part of our pattern of behaviour.

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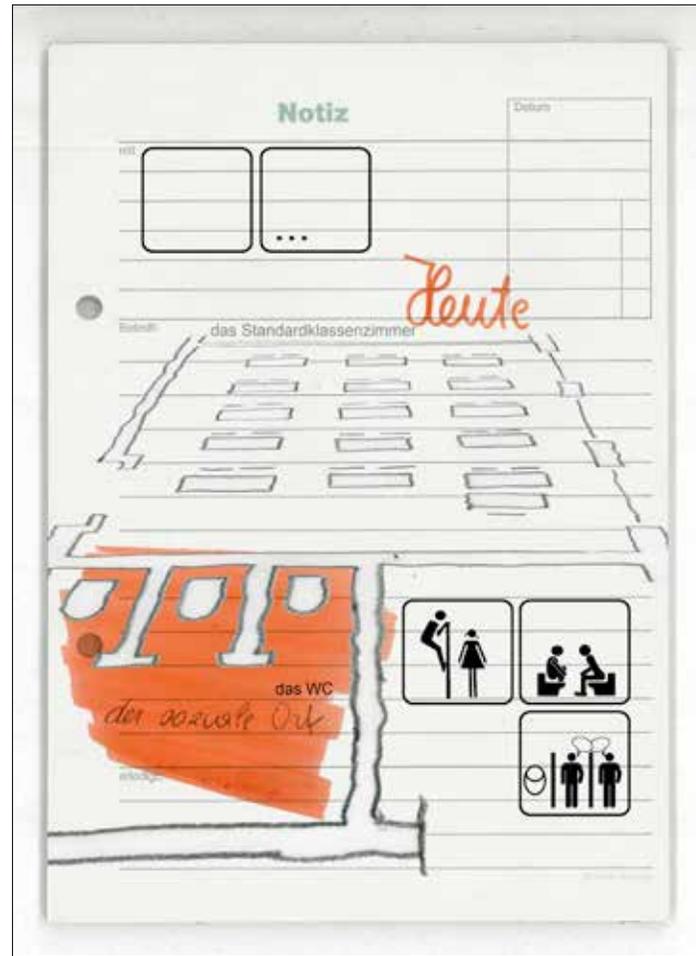


Fig: Worksheet Classroom. „räume bilden“ Stuefer 2011

School is a potential place to play and move

In Austria, many children spend 10 hours a day in educational institutions. Playgrounds, kindergardens, and schools are given the job of promoting motor, cognitive and psychosocial development. They shouldn't just be places that exist, but places that children and teenagers use and appropriate.

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Photo: Room divider - interaction in schools. Düsseldorf, Stuefer 2014

Collective games in active space

Spacial appropriation is an informal educational process – an interaction with a social environment. Development is a pro-active examination of the world. It connects the independent creation of room with the importance of movement as discussed by Löw (2001), and the process oriented composition of space, which is experienced through action.

Collective games in active space lead to competent movement. They offer a platform to be social and make contact. Stimulating questions like – how do I act within a group, how do I express my needs, or why are these rules here?



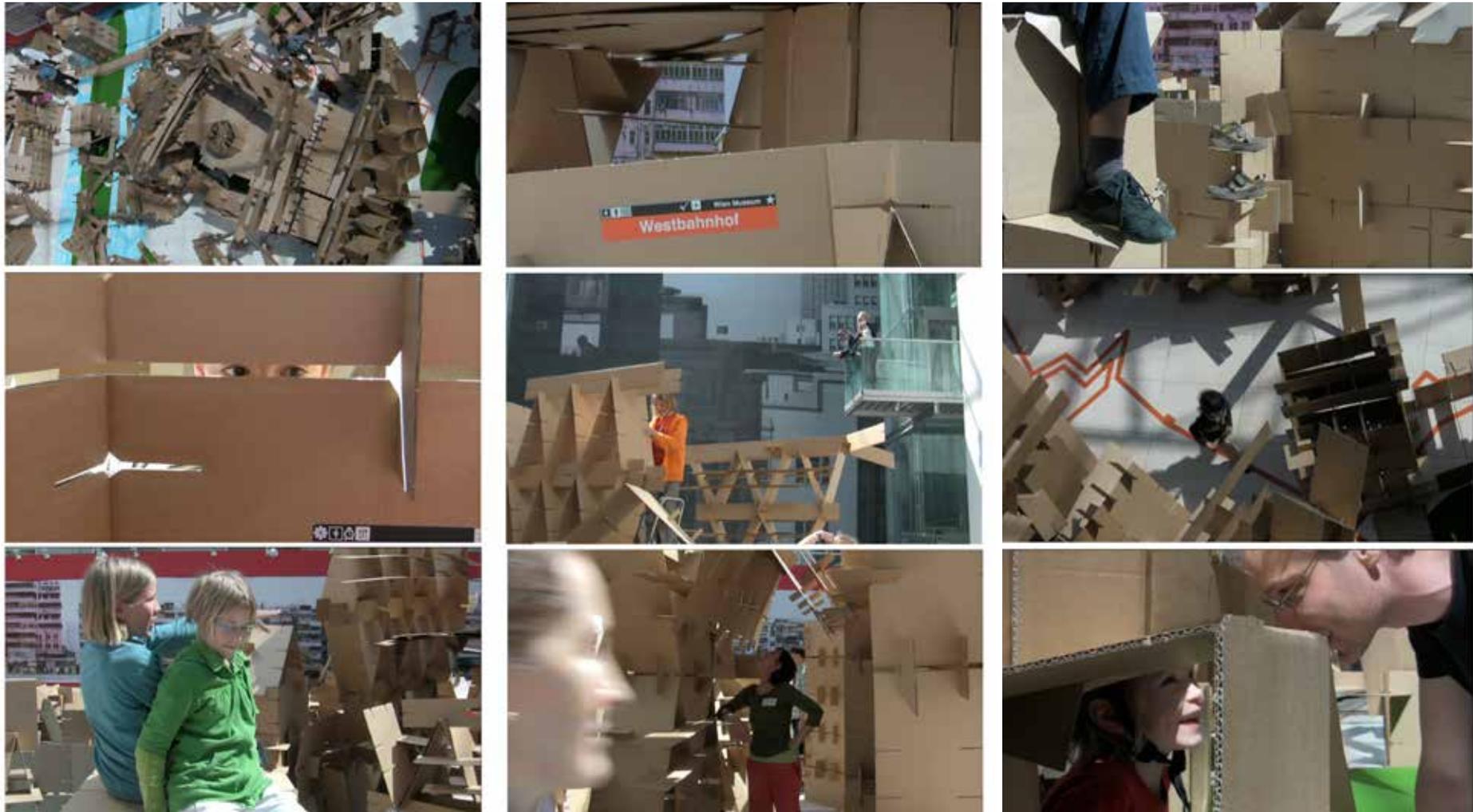
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Stills: Children planning, building and using a city. Wien Museum, Stuefer 2012

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Stills: Children and students planning and building treehouses together. Horn, Stuefer 2012

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Photos: The train - a playground. Stuefer 2015

Planned action in space – in a forbidden playground

Movement through planned action in space encourages independence, self confidence, and organisation of our environment and ourselves. Too much safety constrains us. Not only the type of surroundings is important – one which allows for a multitude of physical experiences - but also the way in which the children discover and use it. If I choose to have a child, I choose to change my life, not to keep on living the life I led before. One of the big problems of our society is that it wants to change the child, and has already changed it's conditions to the child's disadvantage:

The trend in physical accomplishment is downwards. Erich Müller from Salzburg University and the Austrian Ministry for Education undertook the Clever and Fit study of 67000 school children. „30 years ago, the peak level of coordination, strength and stamina was reached by boys between 17 and 19, and girls between 16 and 17. Today, the maximum level of sporting skill is reached at the age of 12. Erich Müller from the Institute for Sport at Salzburg University explained: „The motor skills of school children are in a bad state. The physical capability of our children and teenagers has got dramatically worse over a very short period of time.“ (Müller 2011)

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Photos: Exhibition ‚Flying Classrooms‘. Reithofer, Reiner, Stuefer 2011

Standstill or „sitstill“

The calls for daily gym classes and ‚motor-parks‘ are increasing in an effort to counter the motor function deficit. Can we get this standstill or „sitstill“ under control? I don't think a gym class alone will help: we need a paradigm shift in our society! What can politics, cities, councils, or traffic regulations do? What can our society change in our living environment in order to stop hindering children in their movements? Maybe as a start, we could stop overprotecting them. We protect our children because we love them, but ...



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Baby - Protective - Safety - Helmet

„I'll hold you tight!“



Photos: 19 month old climber. Stuefer 2013

Is overprotection preventing accidents?

„Everyone understands that if you feed a child too much food the child does not flourish, but rather becomes obese. Overprotection works exactly the same way as overfeeding.“ Says Remo H. Largo a paediatrician.

To put children in a golden cage or roll them up in a cocoon of cotton wool doesn't help them to develop. If we hold a child by the hand when it is learning to walk, we are doing it no favour. The child does not learn to pull itself up independently, practise balancing, falling, getting up, or remaining sitting and resting. Head injuries in children have increased exactly because they do not learn to catch themselves with their own hands.

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Fig: Overprotection. Stuefer 2015

Not allowed to stumble

If a child is not allowed to stumble, then the result is a shortcoming in perceptive coordination and the ability to react. Falls are the most common type of accident in kindergartens at almost 50% of all accidents.

93% of accidents were caused without external influence (the rest in traffic). Can movement be in any way preventative? The Austrian Committee for the Prevention of Accidents 2013 said that „accidents are not coincidence. An accident is also not a question of fate. Accidents are caused by a chain of events.“

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Photo: Motor function - young child climbing. Stuefer 2015

Variety of movement

If you want to prevent an accident, you need knowledge and physical experience in order to be able to react. We can't get rid of all sources of danger. We can, however, with technical, physical and psychological means, and a pedagogy which encourages self development, prepare ourselves.

Many kindergarden carers complain that they have to restrict what the children are allowed to do too much. Children are not allowed to climb up trees or onto walls. The result is a lack of exercise and variety of movement. A large number of children's accidents today can be attributed to an exercise deficit. We have to be careful not to hinder children in their development by building barriers everywhere which restrict them. There are already far too many children who are inhibited in their movement.

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Photos: Discover physical principles with hammocks. Stuefer 2008

Discover principles and adapt their physical capabilities

Playgrounds have become so safe, that they offer little more than tedium. What options are available to our teenagers? To look for extreme kicks or sit around at home? Children try, through trial and error, to discover principles and adapt their physical capabilities. They comprehend relationships step by step and expand their radius of activity. When boundaries are explored physically, then risks can be calculated.

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Photo: Thrasher Skateboard, Danube Island Vienna

Teenagers often have to cross institutional boundaries and make constrained rooms bigger. For example, skateboarders try to find a creative approach to spacial structures and the combination and presentation of tricks (Die Eroberung urbaner Bewegungsräume S21). They modify the designated use, not out of a destructive urge, but rather out of a creative need.

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Photos: Using motor, cognitive and social skills. Stuefer 2007 - 2014

A great variety of exercise promotes children's motor, cognitive and social skills, and is as such without doubt helpful in preventing accidents. Safety means protecting children from unjustifiable sources of danger. It also means, however, providing an environment in which exercise is promoted, and the natural joy of movement in children is met.

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Photos: Physical experience on a tree 02. NZ Stuefer 2015

The children could fall out
of the tree!

Better use a climbing frame?

Hannes Lichtmanegger from the Austrian General Accident Insurance Institution (Allgemeinen Unfallversicherungsanstalt in Österreich) told me that he keeps on meeting people who ask him what he's going to do about the trees. The children could fall out of them! That's when it gets really difficult to do anything. Kindergartens are an increasingly important topic. Since 2010, children are insured whilst in attendance. Materials for accident prevention are being created, and the main priorities are architectural and technical safety. However, the space for movement is receiving increased attention.



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Photos: Door – door frame - trying something out. Stuefer 2015

You have to take a risk!

Motor, cognitive and social competence originate in movement. Movement in real space involves not only running, jumping, swinging, sliding, balancing and climbing, but also stumbling and falling, with the resulting grazes and bruises. Exercise produces endorphins, stimulates the senses, and makes children happy. If you try something new, you always enter into a risk. Everyone has the right to risk this.

Joachim Rauch from the Austrian General Accident Insurance Institution thinks that the greatest health risk is taking no risks at all.



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Photos: On the top at 19 months. Stuefer 2013

Sense of balance

We need to create rooms that intentionally include risk and danger: Can architecture offer a space without paths where the sense of security of movement and sense of balance can be trained? It is difficult for an architect or educationalist to find the right balance between allowing a fall or a stumble, and avoiding serious accidents. This remit is new territory for architecture and means we need to look for partners where we maybe never did before.

From talking to therapists and care-givers, I know that the work of insurance experts like Rauch and Tacas are seen as a great assistance. They are often surprised to be encouraged by insurance experts to leave children some room for risk. It is a big help being able to draw on the insurance's knowledge of injury statistics and the causes of accidents when talking to parents.

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Photos: Swinging free at 19 months. Stuefer 2015

Photo: baby swing at 18 months. Smoby 2014

Swinging yourself, or being swung?

I'd like now to point out the importance of what is in the things and the materials. Materials which respond are necessary for autonomous motor development.

The Hungarian paediatrician Emmi Pikler's (1902-1984) work led to an adjustment in attitudes in infant educational theory and practice, most notably the area of autonomous motor development. Materials and objects for autonomous motor development display the characteristics of direct feedback, authentic experience, and the most aesthetic means of expression.

What can you see in this picture - Swinging yourself, or being swung?

If you look at the body tension and the facial expression, there is no doubt which swing is more fulfilling for the senses. On the trapeze, a small child can swing itself – it only needs to lift up its feet. Older children can use the trapeze in many different ways. It grows with them, so to speak. You can change its height. You can hang on it, sit on it, or even stand on it. The trapeze can be used in so many different ways, and so independently, that it is far superior to the infant swing, which can only be used passively. On the basis of this example, it can be seen that we have to concern ourselves with the question of how objects and space are used by children, in order to be able to make good decisions when making a selection. Body and soul need appropriate play things and play space, which children can actually influence.

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Photo: *In the green house*. Stuefer 2013



Photo: Project „Raumgitter“ Stuefer 2007

Explore

Do I dare to climb something unknown, to feel the rotation, enter a race or a dark room, or explore this green wilderness? New territory stimulates yet requires self-confidence. Adults need to provide a designated area. Without this, a child does not learn to gage itself or it's surroundings. There needs to be enough

tolerance for the digestion of new stimuli: a child must be able to shout and make noise, must be allowed to rough and tumble, in order for it to integrate on a sensory level.

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Photos: raumSchläuche project, stretchable fabric rooms. Stuefer 2010

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Hengstenberg climbing and balancing apparatus: reacting to the movement of the user.

The climbing and balancing apparatus respond, giving feedback. The poles are dimensioned so that they give when used, reacting to the movement of the user. Playground apparatus, in comparison, is rigid and undynamic. If playgrounds, schools and equipment have to be indestructible, to avoid vandalism or theft by our teenagers, is it not a consequence of our mistrust in these young people, and what we have to offer them?

Photos: Hengstenberg material in use. Stuefer 2015



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Photos: Materials to bake a cake. Stuefer 2015

We give children a spade to make a sand cake with?

Children are always imitating us, and we give them a spade to make a sand cake with? Most toys do not invite us to examine their shape or run our hand over their surface. Even though every adult knows that you are more inclined to tidy away things, which you find aesthetically pleasing.

Give children things which you find aesthetically pleasing.

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Photos: *Inside qualities of a boat*. Stuefer 2015

Indestructible

Is something fragile? How can I learn to be careful with the things in my environment, when everything I am given is indestructible? As a consequence, children's fine motor skills suffer:

At school can we really be surprised that a child doesn't have the necessary skills to purposefully tear a piece of paper?



Fragile

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Photos: A chair – a house – a cupboard. Stuefer 2015



Is a chair only a chair?

Movement and creativity require definition free material.

A young person in a space for interaction may engage with an existing object or create them. Both the symbolic as well as the physical characteristics are examined. Is a chair only a chair?

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Photo: Hideaway in the kitchen. Stuefer 2013



Is a cupboard only a cupboard?

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Photos: Selfmade *parcour*. Stuefer 2014

Objects which could be experimented with

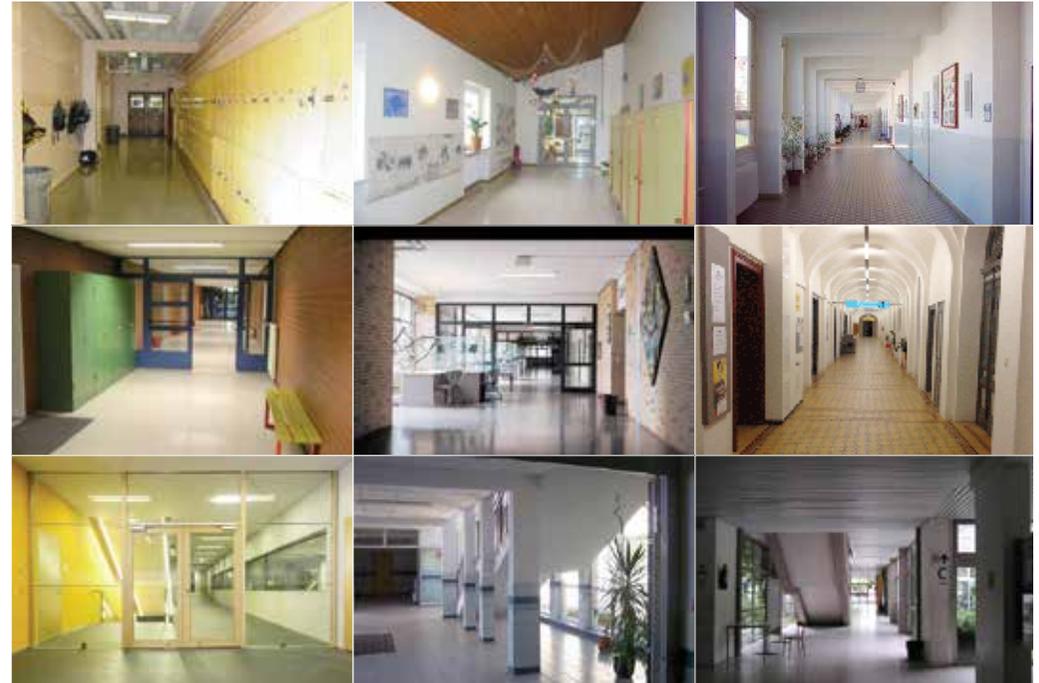
There are seldom objects in cities, schools or at playgrounds which are not attached to something - objects which could be experimented with, such as sticks, or wooden planks ... Don't be too tidy. A telephone on the floor gives you a reason to bend your body.

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Collage: school floors and corridors: a dearth of movement – to move through unhindered

Floor and corridors - last for a lifetime and be easy to care for

Our towns, our schools, our flats are in general too tidy. They present no physical challenges anymore. You can move through them unhindered – they offer us a dearth of movement. The modern flat is comparable to a motorway, which you can cross as fast and efficiently as possible. Joachim Rauch, also a father of three, recounted with a smile that when he asked his daughter, who was sitting surrounded by a floor mosaic of all her possessions, how he should get across the room, she asked him what his problem was exactly (Rauch 2013).

We adults would benefit from a cautious balancing on tip-toe through the things.

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Barefoot – feet as space explorers

Photo: Feet 01. Stuefer 2015

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Surfaces are detected

Feet don't just walk – they grip, are our foundation and basis for balance. Being barefoot is a form of freedom that is very immediate. You make direct contact with your surroundings. The information we receive is meaningful – after all, we go where our feet lead us. Wearing shoes, we are, so to say, blind. Or perhaps a better description is deaf and dumb, since we can enter into no dialog with the ground when wearing shoes.

We should probably lower our gaze to the ground. If we take a look round the world, we can learn a lot about a culture and its way of life from the land on which they live. What experiences and chance for movement do we deprive ourselves of, if we enclose our feet in deforming and dampening shoes, instead of using them as a sensory organ.

Movement sequences are slower, more graceful, and safer barefoot. The variety of surfaces is detected by the contact organ – the foot. These impulses encourage flexibility and keep us in equilibrium. At the same time, they protect us: we instinctively avoid knee-high vegetation – any hidden ground which could harbor something sharp or poisonous. Not only we, but also nature protects itself with these natural barriers:

rugged rock, sharp grasses near swamps etc.. Extreme temperatures activate the circulation and protect us from catching a chill. Altogether, natural medicine shows much interest in the benefits of walking barefoot. Is the city interested in us walking barefoot?



Photo: Sensory organ – feet 02. Stuefer 2015

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Hard, flat, tiring

Did anyone think about our feet when they planned and build our daily environment? You can go barefoot through the city. Astonishingly, you don't often get hurt (at least not in Vienna or Austria). There is hardly anything on which you could cut or hurt yourself. Going barefoot in the city is, however, tiring. The ground is very hard and flat and therefore fatiguing (tiring). A patch of green is a sight for sore feet! Kerbs and cobble stones are also a welcome change. Any sort of variety is better than this tedious (boring) hard asphalt. It's like a walk which is much more tiring on the main road than on the path through the woods, with its roots and stones and moss, with its ups and downs, and its low hanging branches and puddles to jump over. Which surfaces do we like to walk on barefoot? In the city, the ground is a public thoroughfare, both inside and outside of the buildings. They are not made for our feet, but for quick traversal by car or vacuum cleaner. They should last for a lifetime and be easy to care for. Whether they challenge your flexibility down to your little toes is given relatively little thought.

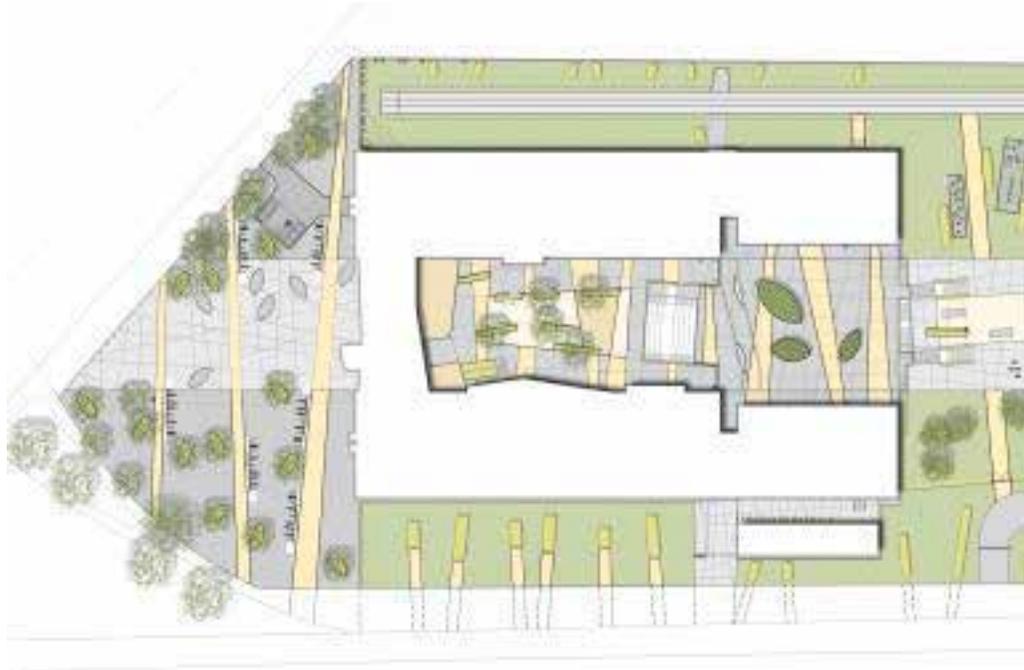
Photo: Asphalt desert. Stuefer 2015

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Viennese school AHS/WMS Contiweg

A ,slipper‘ school

The Viennese school AHS/WMS Contiweg has become a ,slipper‘ school, because of a decorative gravel area in front of the school. The teachers told me that the gravel got caught in the pupil’s shoes and scratched the indoor floors. The solution was to insist the children wear slippers in the building, and prohibit them from going outside on short breaks (in 2011).



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Photo: Happy foot 03. Stuefer 2015

The old Wörgler open-air pool was surrounded by hedges and shrubs. There were two meter wide gaps between the vegetation with knee-deep pools. You had to wade through these pools, thereby washing your feet, in order to get to the swimming pool. If we want our schools and kindergardens to enable children to play with their toes, run barefoot through grass and mud, and maybe even dare to try going out in the snow, will we have to implement a similar automatic washing facility? This is something worth thinking about.

Children should, like scientists, cultivate theories and skills through observation and direct experience of their surroundings in order to develop healthily. Medicine is already looking at a holistic approach. We need to think about, develop, implement and evaluate a holistic approach to space and movement for people.

There is a silent wind coming up in Austria: Don't be too safe! And – think about space in its entirety.

Source: Der Raum, mein Spielgefährte. In der Tat: Räume bilden, Renate Stuefer, Vienna 2014

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Collage: Feet explorers – space to develop 04. Stuefer 2015



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