SENSE the CITY

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IMPRINT

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SENSE the CITY

Exploring the Future with all your Senses

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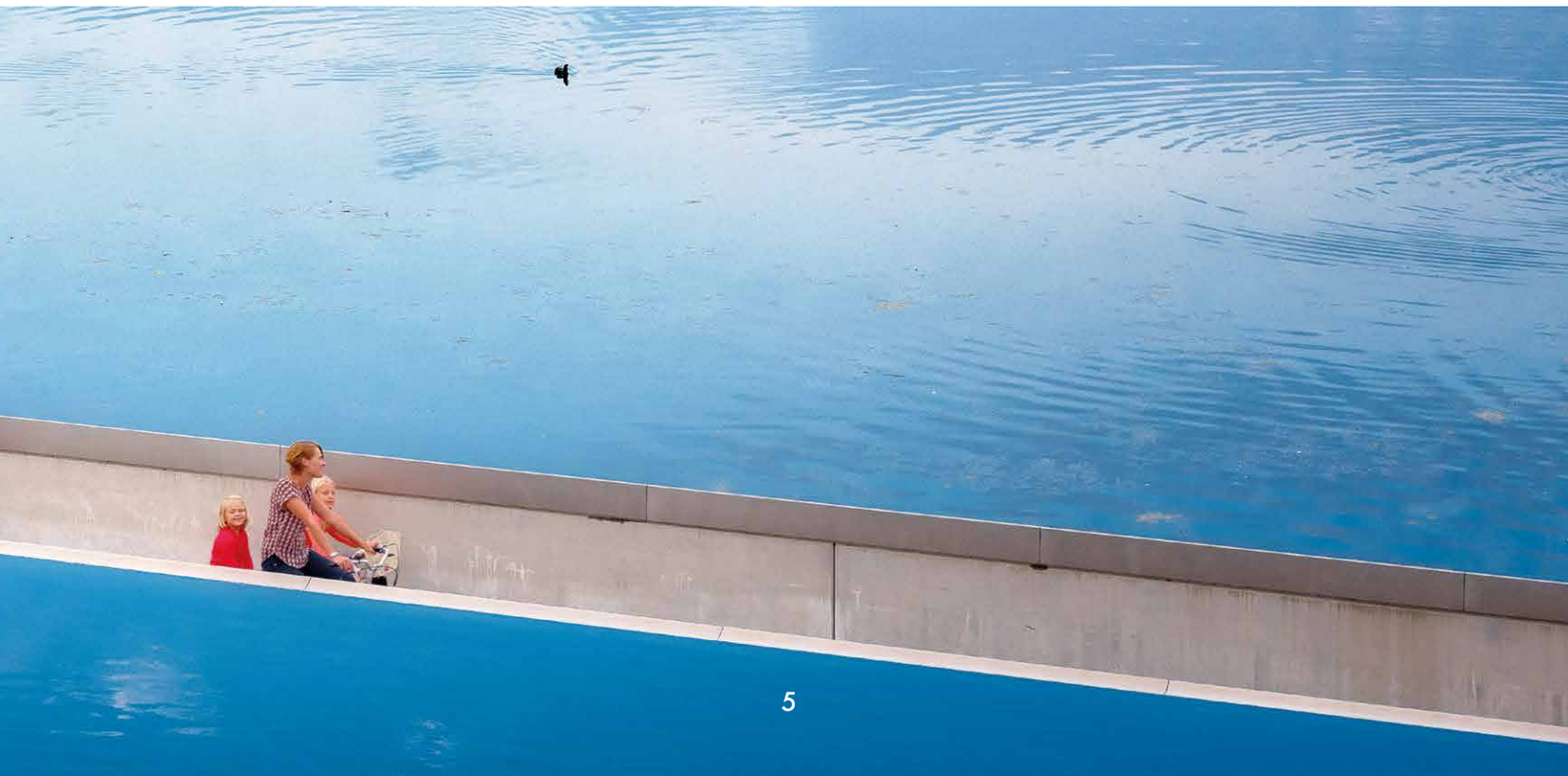


1

LET'S KISS THE VISIONARY ENERGIES AWAKE!

If we want to encourage people to actively take part in shaping their future and developing progressive ideas for a world that will be livable for their grandchildren, then we cannot restrict ourselves to the rational.

The future must also be experienced in an emotional and sensory way.

This is the only way to find sustainable solutions and motivate people to act, and the only way for the transformation to a sustainable tomorrow to have a real chance.

For a long time, it was treated poorly; today, it's back en vogue: the future. In the coming years we will set the course for the next generation, above all in the world's cities. By the middle of the century, 2.5 billion additional people will live in cities, which already produce 80 percent of global economic output and 70 percent of CO_2 emissions (UN DESA, 2014). Enormous amounts of urban infrastructure must be built for these people. Building it with cement, steel and aluminium, as we have done so far, would consume one third of the CO_2 budget available until 2050 if we are to limit global temperature rise to 1.5 degrees (WBGU, 2016, p. 13).

But the global trend towards urbanisation is unevenly distributed: whereas large cities and megacities are booming in developing countries, the population is beginning to shrink in parts of Europe and Japan. And this trend will by no means be linear. In a few decades, medium-sized cities will fuse into mega metropolises, or boomtowns will disappear if resources run out and the socio-ecological transformation fails. We have only a very short amount of time to reduce global greenhouse gas emissions to a minimum: this can only be achieved by a profound change in the way we produce, consume and live — especially locally.

So the challenges for cities on their way into the post-fossil age are immense, often indefinite, and will change with time. Which measures are needed to achieve the necessary transformation is the subject of much argument and debate. What the discourse lacks, however, is the visionary nature of a mood of departure, without which no change will succeed.

What does the future hold?

There is a shortage of positive narratives and images for transformative change, of narratives that encourage, arouse anticipation, offer orientation and reflect people's wishes and needs (Pohl, 2012; Lenzen, 2017). This is due not least to the negative headlines, trends, and doomsday scenarios that characterize the discourse about the future today. Everyone is familiar with them: digitalisation, robotics and artificial intelligence will make millions of jobs disappear, the climate crisis will leave entire cities under water, and megacities will collapse under the weight of their traffic. Headlines like these provide the perfect topic at parties, fill the front pages of newspapers, and guarantee clicks on the internet. On the other hand, if you are looking for positive visions and stories for alternative futures, you have to look far and wide, in small and often hidden places.

For another thing, the city of tomorrow remains an issue for experts. City dwellers do initiate many innovative projects themselves, yet the solutions of the future are usually debated at symposia, conferences, and in meeting rooms around the world, with participants not infrequently fetishizing keywords and orientating themselves around abstract values. There is little room here for citizens and their ideas. But visions about the future are only effective if they are negotiated and worked out together, and if they have an emotional value and a visual message that goes beyond just dry figures. Only in this way can they arouse feelings, create identification and motivate people to act (Cross, 2007). This negotiation and vision-finding process requires alternative formats, approaches and new forms of citizen participation.

People are already using such visions of the future and collaborative approaches at the local level, for example to come up with strategic development plans. But this is not being translated into a superregional or broad-based social narrative that makes socio-ecological transformation seem like a future worth working towards. So how and where do we find the positive images of the future, the ones that create enthusiasm and provide social impetus?

The future is already here

We can draw inspiration from the visionary thought experiments of the 1920s to 1960s, when technical progress, two world wars, the economic miracle, student revolts, and the opening up of outer space changed our society. These upheavals brought forth visionary ideas and radical social utopias that continue to have an impact today.

Just think of Bauhaus, whose ideas and ideals shaped architecture and design worldwide and are still celebrated today, 100 years later. Or take a look at the promising urban utopias and imaginative picture worlds full of glass capsules and aerodynamic forms that were created in the 1950s and 1960s, when the fascination of outer space awakened longings for unexplored spaces and possibilities. To this day, these images seem surprisingly modern and daring (Streich, 2011).

Even though many of the ideas of the time, such as Archigram's Walking City or Klaus Bürgele's futuristic visual worlds, were never realized, they created new perspectives for society, technology and cities, and opened up alternative spaces for thinking and possibilities. People were thinking big, free from prevailing conventions. But above all, these ideas were positive and awakened a desire for the future.

Less head and more heart

This creativity, this hopeful view of the world and fantasy lies dormant within us. We just have to kiss it awake. And that works best with less head and more heart.

If we want to encourage people to actively take part in shaping their future and developing progressive ideas for a world that is livable for their grandchildren, then we cannot restrict ourselves to the rational. It is difficult to explore one's wishes and needs through pure analysis, which rarely awakens the imagination. Change and the future must also be experienced in an emotional and sensual way. This is the only way to find sustainable solutions and motivate people to act, and the only way for the transformation to a sustainable tomorrow to have a real chance.

Peter de Cupere, Smoke Cloud, 2013 © Peter de Cupere

2

THE SENSORY REVOLUTION HAS BEGUN

If we explore cities not merely rationally or visually, but through the lens of sensorial-emotional experience and the human psyche, we will arrive at a future narrative of a different kind.
To cities that are more colourful, healthier, more natural, more varied, more mobile and more communal than those of today — and to cities that are more oriented towards the wishes, needs and well-being of their inhabitants.

Should the cities of the future be green, grey, or perhaps orange? Smell like the woods or cinnamon? Pulse quickly or slowly? Feel velvety soft or hard as steel? These are crucial questions for shaping the future.

Human beings are not only rational beings but also sentient ones. They evaluate the quality of their environment based on their sensorial-emotional experience. What is the atmosphere like? Is it loud, cheerful, or lively? We deal with these questions every day, mostly unconsciously, and yet these questions influence our perception of neighbourhoods and cities. They decide whether we feel connected to spaces or keep our distance, whether we live (or want to live) in a certain place or not.

Pollution Pods by Michael Pinsky at Somerset House 2018 © Michael Pinsky

To date, emotions and sensory perception have hardly played a role in the debate about the future of cities. Popular opinion holds that decision-making needs to be an "objective process" that is not influenced by emotions and sensory impressions (Fatullah and Willis, 2018, p. 3). For this reason, of all the five senses, only the visual — the shape of the urban form and what you see, such as buildings, squares or streets — has so far been given special significance. For urban sound artist Sam Auinger (2018), this is because we have developed a "visual perspective in European culture since the Renaissance, a language for how we deal with and communicate images and our visual impressions". We lack such a language for all other senses, yet they are by no means less important.

Human beings are not only rational beings but also sentient ones

Something is afoot

But the debate is shifting, and there is a growing understanding of the importance of multisensoriality. More and more sociologists, anthropologists, ethnographers, architects, and musicians are exploring how sensory perception, in all its facets, shapes urban life and influences our relationship to urban spaces. Sustainability research recognizes that the transformation to sustainability will not succeed on a purely cognitive level. It must become more sensory, both in the generation and in the communication of knowledge (Heinrichs, 2019 a, p. 11). And social and futurological research is now also experimenting with rhythms, haptics, and scents in order to explore what worries, wishes, and feelings people have in relation to the big issues of the future (Allmendinger, 2017).

These works show that the multi-sensory qualities of spaces have a great influence on whether we are stressed or relaxed, whether we feel happy or completely lost, whether we like cities or not. Thanks to wristbands that measure skin conductivity or pulse and various smartphone apps, it is now possible to record people's emotional reactions to their urban environment. Which squares or streets make our heart beat faster? How does a neighbourhood full of glass skyscrapers affect our mood?

A more vigorous urbanism has also to be a visceral urbanism ...

The city comes alive in the body

Empirical studies show that people feel happier and more comfortable in lively and vibrant places and in nature than they do along urban traffic arteries (Ettema and Smajc, 2015; Klettner et al., 2013). Forests and rooms made of wood lower our blood pressure, allowing us to rest, while certain scents evoke positive or negative feelings in us (Quercia et al., 2015).

For the sociologist Richard Sennett (2018), the takeaway is clear: "A more vigorous urbanism has also to be a visceral urbanism, since place and space come alive in the body" (p. 27). This also applies to the human psyche. However, the fact that architects and urban researchers are discussing urban living with psychologists and neuroscientists is a new and long overdue development.

Anne Patterson, Pathless Woods, 2017 © Daniel Perales

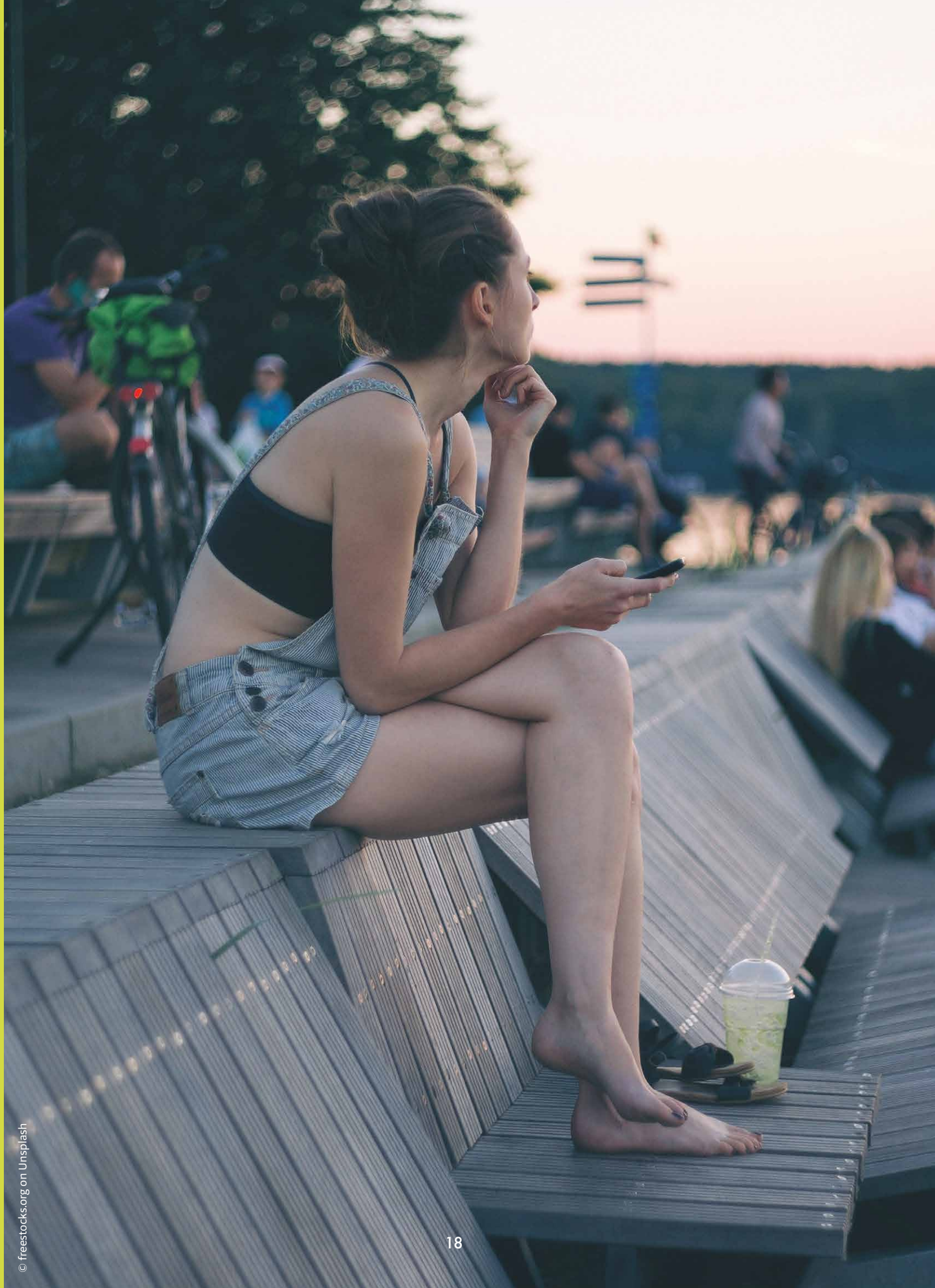
The Neurourbanists' Charter

The Interdisciplinary Forum Neurourbanism was recently founded in Germany. Under its umbrella, researchers and practitioners from psychiatry, urban planning, psychology, neuroscience, architecture, sociology, philosophy, and ethnography work together to investigate how urban living affects people's emotions, behaviour and mental health, and what this in turn means for the design and planning of cities. The "Charter of Neurourbanism" provides new impetus for reconsidering the city's mobility, culture, or density (Interdisciplinary Forum Neurourbanism, n. d.)

Over in the Anglo-Saxon world, the "Conscious Cities" movement founded in 2015 by architect Itai Palti and neuroscientist Moshe Bar has gathered pace. Its achievements include the establishment of the "Centre for Conscious Design", which explores how cities can improve health, well-being, social justice and productivity, and how the built environment can be more closely tailored to the needs and desires of its inhabitants? (The CCD, n. d.).

© »Olfactory Forest« by Omer Polak.
Photo: Pujan Shakupa and Stefan Stark

… since place and space come alive in the body



Another kind of narrative of the future

The "sensual revolution" (Bull and Howes, 2016) offers deep insights into people's lives and perceptions. It creates a new understanding of the impact of urban spaces on people's emotions, feelings and mental health, thus opening up whole new doors for the design of livable cities.

If we explore cities not merely rationally or visually but through the lens of sensorial-emotional experience and the human psyche, we arrive at a future narrative of a different kind. To cities that are more colourful, healthier, more natural, more varied, more mobile and more communal than those of today — and to cities that are more oriented towards the wishes, needs and well-being of their inhabitants.

Let us take inspiration from this, and take a new look at the city of tomorrow.

What kind of city of the future do you wish for?

How should the city
of the future ...

sound

smell,

taste

look

feel?

What kind of city of the future do you wish for?

In our project “Sense the City”, we asked this question and went in search of people’s ideas about the future — and we did so on the level of the senses. We wanted to know how the city of the future should sound, smell, taste, look and feel. We not only wanted to create new spaces for thinking, but also new spaces for feeling.

We spoke with people from different backgrounds and experts from various disciplines in a series of visioning workshops. We looked at their ideas and visions, evaluated them, put them together, developed them further and illustrated them with project examples. As a follow-up, we did research into existing and imagined utopias, which take up the prototypical ideas from the workshops and break new ground.

The stories about the city of the future should inspire, provoke, raise questions and invite people to participate, imitate, and scale up these visions.

3

THE CITY OF THE FUTURE INVIGORATES THE SENSES

A city that serves the human senses has nothing to do with naive feel-good aesthetics, but rather with the question of how we want to live in our cities in the future, and what happens to us when we transform multi-sensory urban spaces into monotonous ones.

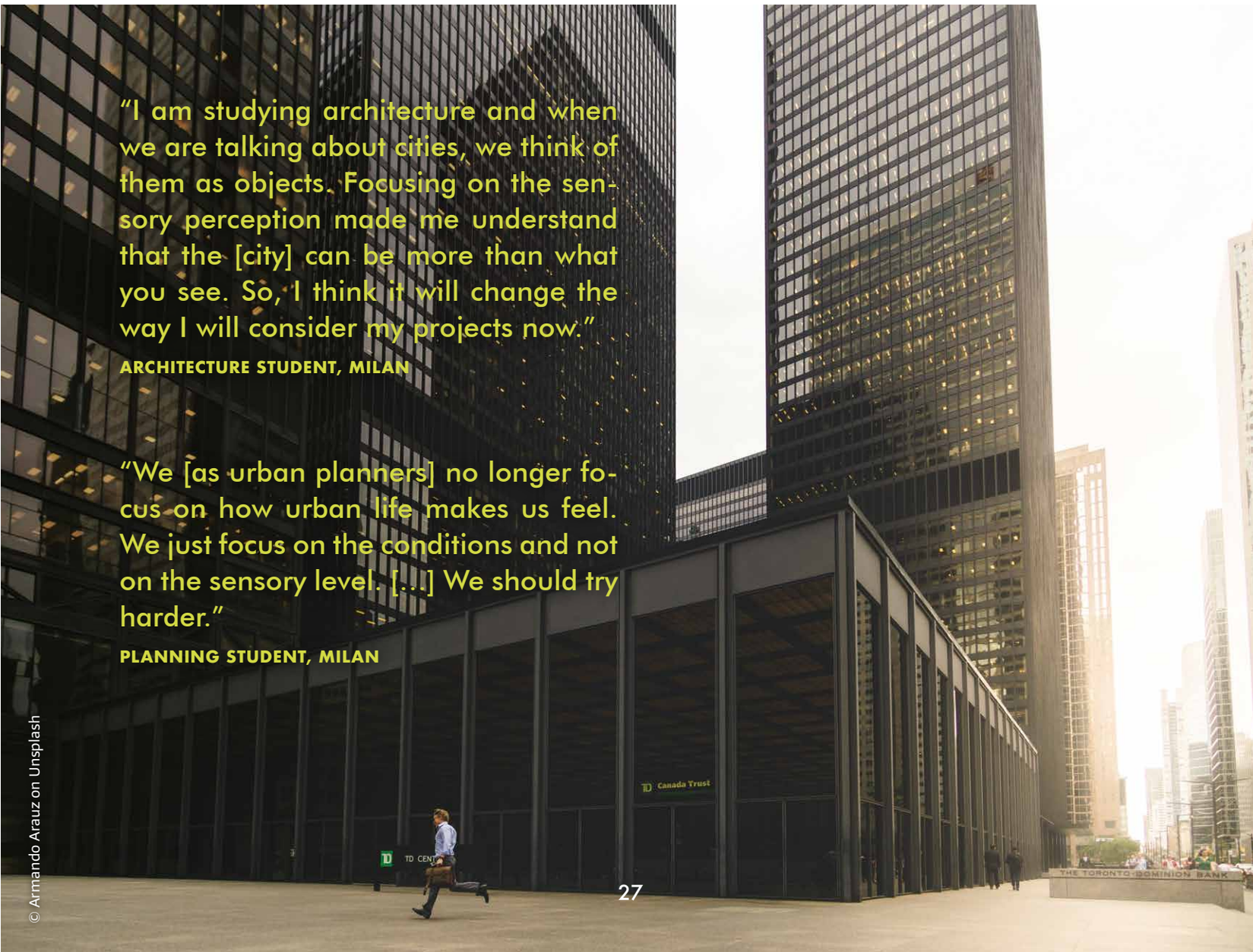
Cities are more than the built and lived environment. They are places full of sensory impressions and sensory stimuli. Everyone experiences them differently, and yet there are patterns to how people experience their city with all their senses and what effect the multisensorial qualities of urban spaces have on them. Jan Gehl, a world-renowned architect and a global leader in people centered urban design from Copenhagen, recognized this early on through his observations and recordings in public space and called for planning on a human scale, planning that takes the human senses as its starting point (Gehl and Svarre, 2013). In Weimar and Milan, the students of architecture, planning, art and urbanism thought in the same way. Sensitized to a world full of sensory stimuli and their effects, they decided to focus not only on the traditional, functional level but also on the sensory level in future projects.

After all, architecture and the structure of our urban environment has a great effect on us, both positive and negative. One project that particularly shook up the experts was the Pruitt-Igoe social housing project in St. Louis, Missouri, which was built in the mid-1950s and demolished again within a very short time. (Hoepner, 2015). The monotonous urban design and architecture of Pruitt-Igoe, with its 33 identical eleven-story apartment buildings for around 15,000 residents, led to social isolation and suppressed any sense of community and identification. But how should cities be designed so that people feel comfortable?

What are we doing to ourselves?

More and more psychologists and neuroscientists are looking into this question and providing answers from which urban planners can learn a lot. According to the psychologist Colin Ellard, the facade of a building plays a critical role in influencing people. His research has shown that if a building's facades are complex, exciting and open, it has a positive effect on people's mood, whereas monotonous and closed facades have a negative effect. The visual complexity, he explained, acts like a kind of "mental balm" (Bond, 2017). This is confirmed by a virtual reality experiment from Iceland, where participants were confronted with streets with different building heights and architectural diversity and complexity. Architecturally varied streets with low building heights had a stronger recreational value and fascinated people more than those with tall, less diverse buildings (Lindal and Hartig, 2013).

The geometry is decisive too. Recent studies suggest that many people feel more comfortable in rooms with curved walls and rounded contours than in sharp-edged rectangular rooms (Shemesh et al., 2016). In reality, however, we continue to plan and build our cities so that they are monotonous, monochrome, angular and square — exactly so that they are not good for people. The Canadian writer and urbanist Charles Montgomery (2013) sees this as nothing more than an "emerging disaster in street psychology" (p.161).



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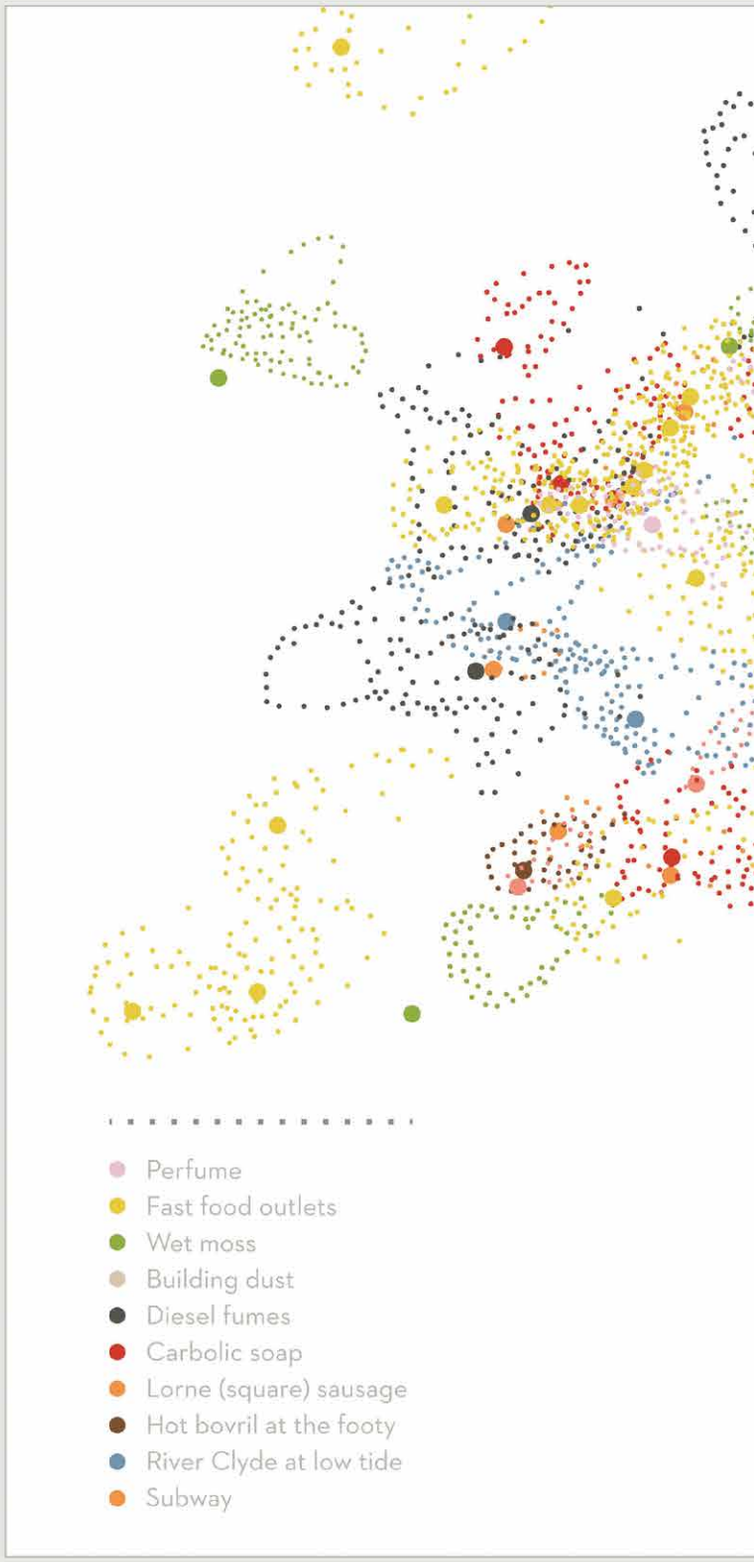
The smell of a city

In addition to its visual appearance, the sound, feel, and scent of a city are also important for the way we experience and perceive it. The thing is, these senses often fade into the background or are completely forgotten. And yet the scent of a city is probably the sensory stimulus that most strongly reminds us of the past and connects us to places.

However, for many urban planners and architects it plays virtually no role at all. When it does, it is primarily a matter of neutralizing odours or averting unpleasant ones (Quercia et al., 2016). After all, the smell of a city has a bad reputation for historical reasons. For a long time cities were smelly and dirty places that reeked of faeces, nocxious vapours or industrial waste. Although the smell of cities has changed and improved with each developmental step, whether through the construction of sewage systems or the relocation of waste disposal sites, architecture and urban planning have so far overlooked the possibility of using smells as an urban design feature (Marquez, 2017). There are, though, city smells that trigger positive emotions in people and should be encouraged accordingly. Studies in London, Vienna and Barcelona have shown that urban spaces that smell of food, nature and fresh summer air, for example, evoke feelings of happiness and joy in people (Glass et al., 2014; Quercia et al., 2016).



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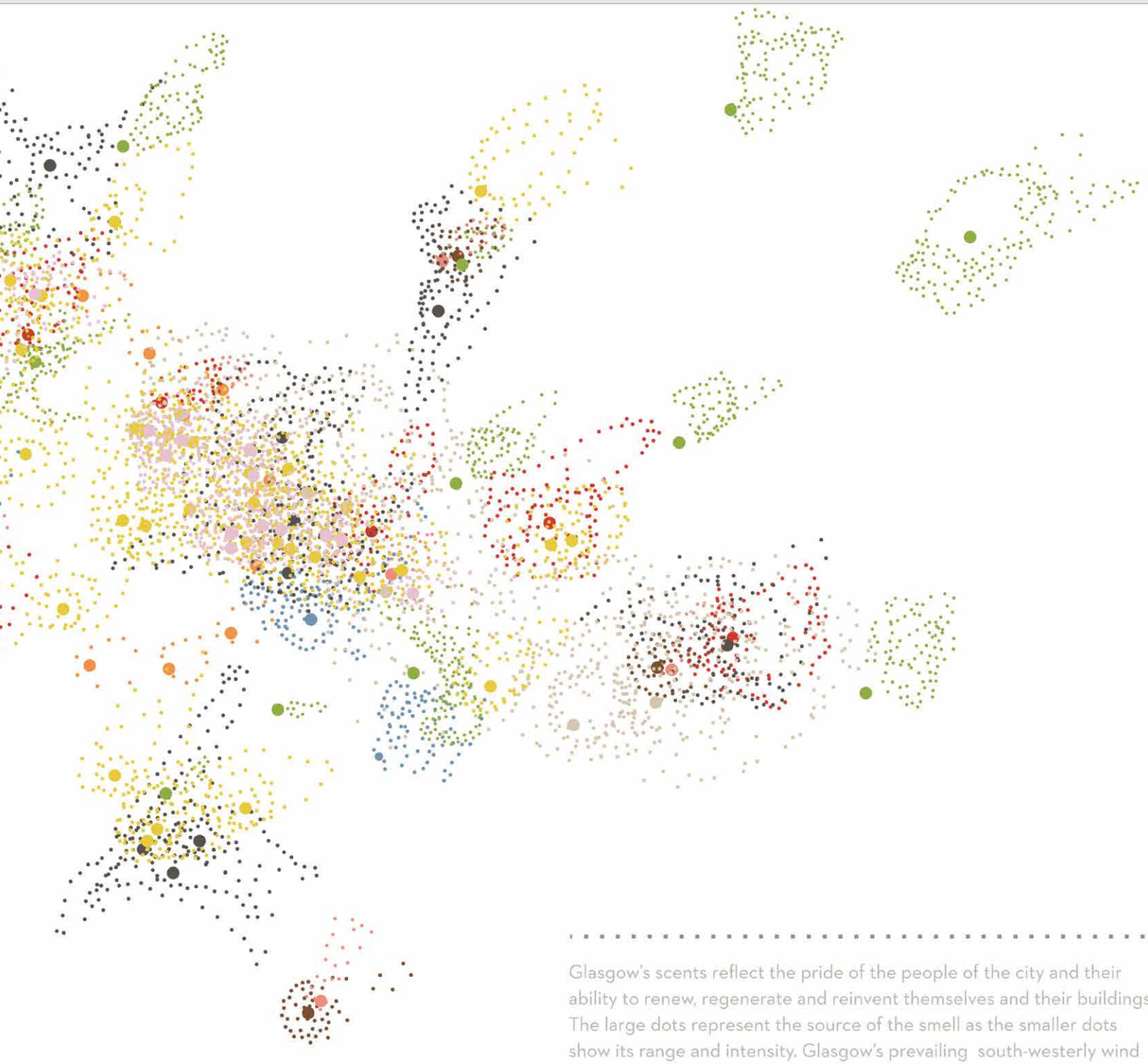
ENTS OF GLASGOW 2012



Glasgow's scents reflect the pride of the people of the city and their ability to renew, regenerate and reinvent themselves and their buildings. The large dots represent the source of the smell as the smaller dots show its range and intensity. Glasgow's prevailing south-westerly wind causes the scents to drift away to the north-east.

scents provide important information and hints for planning and designing urban spaces


© Jan Rottler

Worlds of experience and memories

We made a similar observation in our visioning workshops. Children, pupils and adults received five scent samples. They were asked to choose the smell they liked the most and the least. We wanted to know what emotions and associations they had with each and what places in the city they were thinking about. The available scents were grass, exhaust fumes, cleaning products, garbage, and fresh pastries — but the participants were not told this.

The smell of grass was most people's favourite; they associated it with freshness, nature, and green. The scent reminded them of walks in the forest, lying in the park, carefree childhood days, and home. It awakened feelings of joy, happiness and freedom, and above all stood for relaxation and peace. A small minority, on the other hand, preferred the scent of detergents, which they experienced as sweet and pleasant — it reminded them of visiting the mosque or rummaging around drugstores. For the majority, however, there was something synthetically unnatural and cool about the smell of detergents.

Others were fascinated by the smell of fresh pastries. In their description, it was sweet, soothing and aromatic, associated with big family meals, Christmas, holidays at the mosque or picnics in the park. This smell stood for community and connecting people. The smell of garbage, on the other hand, could not win anyone over: it aroused disgust and reluctance and triggered memories of vomit, stinking streets, the smell in subways or under bridges. The smell of exhaust fumes caused the strongest negative reactions. One breath and the participants moaned and distorted their faces — some had to go and get fresh air to recover. Immediately the memory of stuffy air in the streets, traffic jams, and deadlock returned. For many, it was a terrible smell that they associated with danger. However, with a few exceptions, the smell also aroused positive feelings and associations. They thought of adventure, the freedom one feels on road trips or of small studios and workshops in former industrial areas.

Smells evoke individual reactions and emotions; they do not mean the same for everyone. That's why working with city smells also requires a nuanced approach. But immersing oneself in people's worlds of experience and memory, as scents make possible, provides important information and hints for planning and designing urban spaces.

Preservation orders for scented landscapes

The fact that it can be worthwhile to focus more on odours, even to protect them as a characteristic of a city, was clear to the Japanese Ministry of the Environment as early as 2001. Since then it has classified not only important buildings as historical monuments, but also urban olfactory landscapes. Spaces and streets that distinguish themselves by their "good fragrance" are being preserved, such as the Kanda-Jimbocho in Tokyo, a street full of second-hand bookshops. The motto is: stroll through the city, always following your nose. The Japanese government's initiative is an attempt to emphasize the positive effects of scents, and to protect fragrant places and learn from their qualities for future urban development projects (Henshaw, 2014).

There are plenty of points of contact for planning and architecture here: even changing the street layout (and thus the air flow) or expanding pedestrian zones and bicycle lanes to reduce exhaust fumes can have a positive effect on the urban smell landscape and thus on well-being and mood.

Climate change and technology are also likely to change the scents of our cities. After all, it is not unlikely that the rise in temperature will suddenly attract plants to cities that did not exist there before. At least that is the assessment of the Research and Innovation Lab XL, of the architecture and planning firm SWA. For the American city of Houston, they predict a fragrance mixture of the lemony note of honeysuckle, the green-dry scent of the Persian silk tree, and the artificial grape-scented kudzu flower (Metcalfe, 2017). So, when designing multi-sensory urban spaces, there are all sorts of things to be done and just as many factors to take into account. How can this succeed?

Hotspots indicate areas in Houston we project could be fragrant in the future due to changes in ecology. Base data acquired from Harris County's vacant parcel information.

One discovers something new and previously hidden

Of Smellwalks and Soundwalks

The first step is very simple. We need to sharpen our awareness and tune into the sensory perception and emotional experience of our urban environment. So-called Smellwalks, Soundwalks or even multi-sensory city walks are a good way to get started. During these walks, you pay attention to how you perceive your surroundings, consciously focusing on your senses and what triggers them. Is it loud or quiet? Does it smell good? What memories are awakened? What surprises and what pleases?

Our sensory city walks truly amazed the participants. It is fascinating what you overlook, do not hear, or ignore when you normally move through the city, and what you, in turn, discover when you consciously concentrate on your senses! Suddenly, it is noticeable how loud the traffic is, how dirty the park, how multilingual the hustle and bustle of the market. One discovers something new and previously hidden, the sound from a small side street, the dripping from a rain gutter, the rustling of the trees, or the scent of a hanging flower tendril, and one begins to wallow in memories. The impressions that participants put down in their diaries after the city walks border on pure poetry. They show how great the need for sensuality is.

Extract from a diary, written by an Italian student during a sensory walk.

Dear diary,

It's hot in Pescara today, at last! I go downstairs, open the building door, and immediately, a violent wave of noises greets me good morning. The traffic in Pescara is intense. […] As I am about to cross, I see in the distance the traffic light turn green. I manage to cross just in time before the sound of a truck rings in my ear and exhaust gas fills my lungs. I take a few more steps and there I am, standing in front of corso Manthonè. As I enter the street, human voices replace the machine noises — it's fantastic. I feel like I'm in the middle of history: I walk on a fifteenth century pavement that almost makes me lose my balance. When I touch the brick walls, I can feel the sweat and ingenuity of the medieval workers. The streets are narrow and long, but here, I feel more secure than in those exaggeratedly large streets outside. […]

I decide to go for a walk at the seafront. To get there, I have to cross the city. It seems as if the urban fabric would be an impenetrable forest, in which one can move only with difficulty. As I arrive at the river, one of the city's greatest paradoxes unfolds: The long river is entirely surrounded by cars, both in transit and at standstill. In fact, it's a huge parking lot. The arrogance of how these spaces approach nature is frightening. […] Cars of all kinds dart over my head. […] I feel like I'm locked up in a kind of bunker. Shouldn't I be at the river bank?

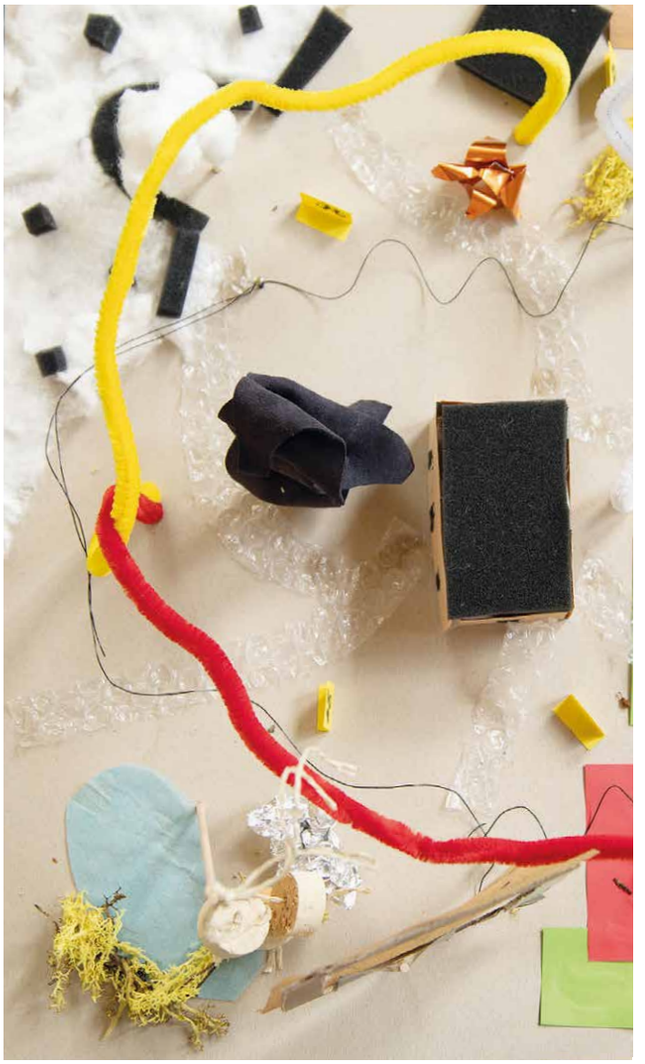
Finally, I arrive at the entrance of the bridge above the sea — one of the longest pedestrian bridges in Europe. It looks like a different city. The air is fresh and I can smell its saltiness. In the distance, I hear the voices of children playing on the beach. I feel like I've detached myself from the city. Here, I finally have a point of reference. I see people walking, running, talking and looking out. The view is stunning: on one side, the city with the Apennine Mountains behind it, on the other, the Adriatic Sea. Time seems to have stopped; everything is calm and I feel in harmony with the city.

This is probably why these walks are becoming more and more popular all over the world. "Close your eyes and go!", is the message here. In Vienna, city planners offer the "Smells Like Wien Spirit" walk to explore the city by following your nose. In Bonn, the city sound artist Sam Auinger has designed a "listening place map" — a city map to experience certain places with your sense of hearing. The city of Hamm offers a sensory trail with the aim of reviving the human senses. In general, sensory trails are very popular — in any case, they came up in all visions of the future. From Finsterwalde to Mannheim to Weimar, people wanted to create a new sense for and experience of urban sensory stimuli and impressions.

These sensory city walks and exploratory tours offer something for everyone, including urban designers and city planners. It is only through the multi-sensory exploration of spaces that one gains a deeper understanding of their character, peculiarities, and dynamics. Urban designers should ask themselves "what do our urban spaces, and the way we organize our social and economic interactions in them, have to offer our senses" (Auinger, 2018.). This is only possible if they learn to recognize and interpret this.

What do our urban spaces, and the way we organize our social and economic interactions in them, have to offer our senses?

Happy Maps



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We perceive the city completely differently, depending on whether we move on foot, by bike, by public transport or by car, and the route we choose is also decisive.

When we navigate through the city, we increasingly rely on digital map services such as Google Maps to get us to our destination as quickly as possible. So far, we have only been able to select the means of transport in these apps. The sensory level is not included in route planning, even though it could fundamentally change our perception of a city. In all probability, we would then no longer choose the noisy and busy shopping street suggested by Google Maps on the way to work, but rather the green, architecturally diverse paths with less traffic noise and more birdsong.

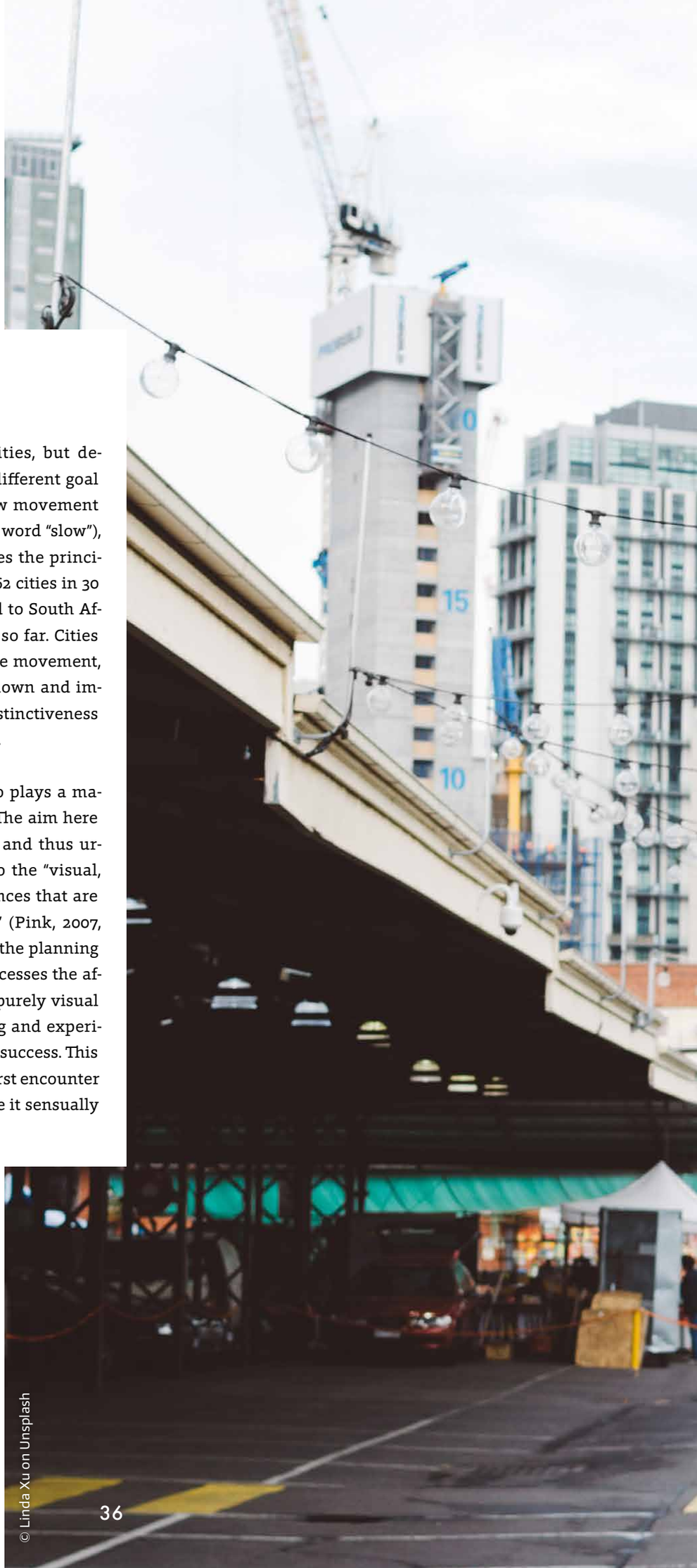
Students at the Bauhaus University Weimar have therefore developed a proposal for a Sensory App. They wondered why people today so rarely rely on their intuition and senses when exploring cities and instead prefer to follow advertisements and recommendations from some tourism brochure. If the students had their way, in the future we would be led through the city by our sensory perception, emotional states, and energy levels. If we are tired, a quiet neighbourhood might be just the thing. If we are looking for entertainment and energy, lively places with a positive atmosphere are certainly helpful. Surely, this must be programmable.

In fact, there are first prototypes for so-called "happy maps". At the Yahoo! lab in Barcelona, researchers tested digital map services that recommend not only the fastest but also the happiest, most beautiful, and quietest route to your destination. Taking into account the aesthetic quality, the scent and sound of the city and the quality of memory (for example, places of collective memory), these maps offer alternative routes (Quercia et al., 2014).

Cittàslow

Digital map services open up new possibilities, but designing a city of the senses requires more: a different goal and approach to local planning. The Cittàslow movement (combining the Italian word for "city" with the word "slow"), which was founded in the 1990s and integrates the principles of Slow Food, is a good example of this. 262 cities in 30 countries — from China to Australia to Iceland to South Africa — have achieved the status of "Slow City" so far. Cities with fewer than 50,000 inhabitants can join the movement, provided they share its objectives — to slow down and improve the quality of life and to preserve the distinctiveness and cultural diversity of cities (Barkham, 2004).

In Cittàslow, people's sensory experience also plays a major role in urban planning and development. The aim here is to design alternative sensory experiences and thus urban landscapes that form a counter-model to the "visual, olfactory, gustatory, sonic and haptic experiences that are associated with global consumer capitalism" (Pink, 2007, p. 66). For many Cittàslow cities, this begins in the planning process. While in many civic participation processes the affected spaces are often discussed based on a purely visual representation, in Cittàslow the joint planning and experience on site is a fundamental precondition for success. This is because of the conviction that people must first encounter a space or place for themselves and experience it sensually in order to find the best solution (ibid.).



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Dare to be sensory

A city that serves the human senses has nothing to do with naive feel-good aesthetics, but rather with the question of how we want to live in our cities in the future, and what happens to us when we transform multi-sensory urban spaces into monotonous ones. We should definitely take this aspect into account in the debate on transformative change. We will only be happy if the cities of the future are sustainable and have a positive impact on people's mood, behaviour, and well-being. There are enough reasons to dare to be more sensory.

4

THE CITY OF THE FUTURE SHINES GREEN AND BLUE

The city of the future needs a new guiding model and new colours. Not grey, but green-blue is the way to a humane future for cities.

Smart cities are orange and blue. This is what Oxford professor Gillian Rose realized when performing a colour analysis of images posted on Twitter with #SmartCity. Healthy and livable cities, on the other hand, have a different colour. The visions of the future held by the children, young people, and adults we spoke to were teeming with city forests and gardens, sprawling orchards, crystal-clear rivers, and urban bathing areas. For them, the cities of tomorrow are green and blue, stimulating, joyful and lively. They offer retreats and recreation areas to help bodies and minds find peace.

Because people feel what the figures prove: cities can make people ill; they are "hot spots" of chronic diseases and increase stress. According to a study by the Centre for Urban Design and Mental Health, the risk of schizophrenia is twice as high among city dwellers as among the rural population, and the probability of suffering depression is about 40 percent higher.

But that's not all: cities are also responsible for more than 70 percent of global CO_2 emissions. Buildings alone account for 50 percent of CO_2 emissions in cities; in London or Paris, the figure is up to 70 percent (Poon, 2018). In addition, the construction boom and increasing soil sealing are leading to heat islands and flooding. Increasingly, the climate crisis is making city dwellers suffer.

The city of the future therefore needs a new guiding model and new colours. Not grey, but green-blue is the way to a humane future for cities. Because trees, green spaces, lakes, and rivers improve the urban climate and are good for the human psyche. The city of Vancouver agrees and stipulates in its building regulations that the view of the mountains, forests, and the sea must not be restricted (Bond, 2017). Yet, colours have multiple meanings and functions.

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Urban gardeners with attitude

For fans of urban gardening, a green city goes hand in hand with a green way of life. What began as a survival strategy in areas of great poverty has become a worldwide movement. Intercultural gardens, city farms, neighbourhood gardens or guerrilla gardening projects popped up on wastelands, roofs, green strips and in the visions of the future of schoolchildren and grandparents alike. Driven by the young urban avant-garde, today's gardens are less places for subsistence farming than oases of tranquility and experimental fields for issues of the future with a political statement. In addition to the local cultivation of healthy food, the focus is on protecting the environment and the climate, and the re-conquest of public spaces, so that which defines urban life can take place: community. Here, socio-ecological change is already being practiced.

In order to turn small garden projects into productive urban landscapes, where edible gardens full of fruit, herbs and vegetable beds shoot up in all conceivable and unthinkable places, the network "Edible Cities" is committed to scaling up these places of change and transforming them into city-wide strategies. This has already worked in cities like Andernach on the Rhine. Fruit and vegetables are grown here on public green spaces and made available to citizens for free harvesting. Picking them is encouraged. This is also the dream of some primary school children from the small town of Finsterwalde in Brandenburg. In their future models, they designed edible gardens to sweeten the city centre, planted lemon, apple, cherry and plum trees in the market by the town hall, and let strawberry bushes and sunflowers sprout in the castle park.

People don’t want to go swimming in chlorinated swimming pools; they want to bathe in natural blue spaces

Blue city oases for the soul

Besides the desire for more city green, there is also a yearning for more city blue. You can go for a walk in the woods, you can watch the sky in the meadows, but young visionaries from Berlin say there's nowhere better to relax and enjoy the hot summer days than on and in rivers, canals, or lakes. They don't want to go swimming in chlorinated swimming pools; they want to bathe in natural blue spaces.

Thanks to ecological plant filters, the River Bath (Flussbad) in Berlin will soon be a tangible utopia. The Spreekanal between the Federal Foreign Office and the former German Democratic Republic's Council of State building, which has been unused for over 100 years, is to be reactivated, encouraging visitors to swim in clean water. Taking a leap into natural, cool water has long been part of everyday life in Berne, Basel, Zurich and Copenhagen in the summer. The Rhine swimming event in Basel is a good example. Between Wettstein Bridge and Johanniter Bridge, thousands of people can drift down the Rhine every day and enjoy the fact that they don't even have to do much to get around.

The images used in this article were taken by Lucía de Mosteyrín on behalf of the S AM Schweizerisches Architekturmuseum for the exhibition SWIM CITY co-curated by Andreas Ruby, Barabara Buser and Yuma Shinohara. http://www.sam-basel.org/en/exhibitions/swim-city

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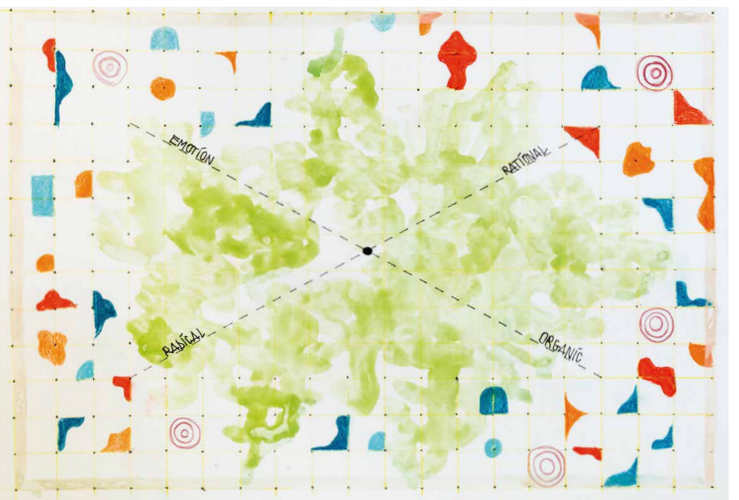
Green and blue oases improve the urban climate and benefit the community



City wilderness

Green and blue oases improve the urban climate and benefit the community, but we need to do even more for mental health. Italian students at the XXII Triennale in Milan dreamt of growing city forests and wild park landscapes. They wished for a city of the future where the boundaries between nature and city are fluid, where it is not clear whether the buildings are part of nature or nature is part of the buildings. Their cities should smell of forest soil and fresh air, and be infused with nature and naturalness as far as the eye can see.

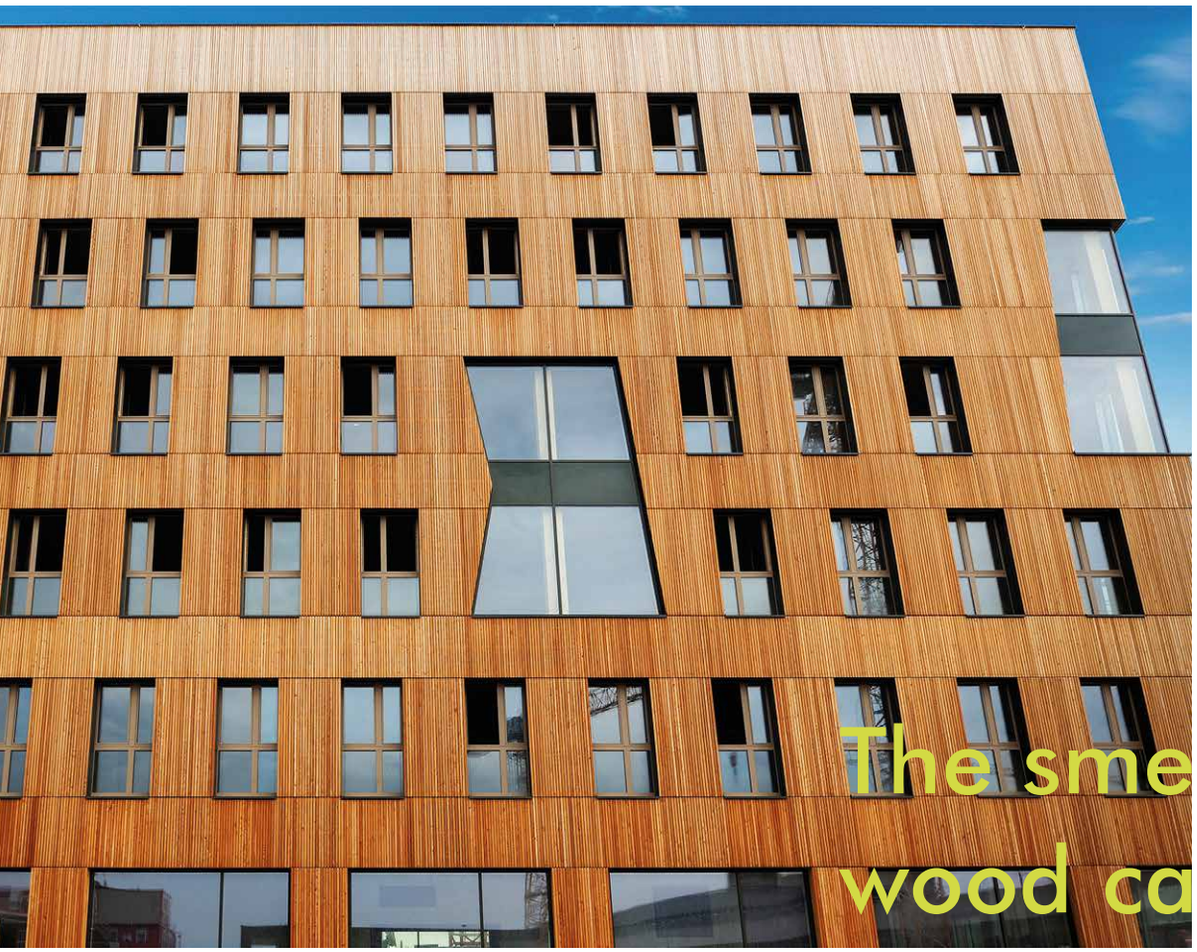
They are not the only ones with this vision. After all, city forests and wild green spaces improve the climate, help regenerate ecosystems, and protect biodiversity. Forests alone store about a quarter of the carbon emissions caused by human activity each year (Knauer, 2018). Looking at them relaxes people, lowering blood pressure and heart rate (Tsunetsugu, 2013). Moreover, unlike parks that are perfectly mowed down to the last blade of grass, they allow their inhabitants to experience nature in all its glory. City forests and urban wilderness must be protected and expanded.

A good example of this is Gleisdreieck Park and Schöneberger Südgelände in Berlin. In the Schöneberger Südgelände Nature Park, the former Tempelhof marshalling yard, nature has been reclaiming what was once hers since 1999. In the inner-city landscape and nature reserve, you can now marvel at rare and endangered animals and plants and forget for a moment where you are. For more and more people this is worth a trip — it's a chance to escape the hectic pace of the city. This also applies to the Gleisdreieck Park, in the immediate vicinity of Potsdamer Platz. Here you can not only experience grown city wilderness, but also play, romp, eat, sunbathe, and relax in all sorts of settings. In the summer months, the park nearly bursts at the seams, demonstrating how great the demand for these places is.

City forests

The blue-green movement has influential followers. Paris Mayor Anne Hidalgo is creating a new city forest on the north-eastern outskirts of the city, five times the size of Central Park in New York. For a long time, the area around Pierrelaye-Bessancourt served as an unofficial rubbish dump. Its soil pollution was probably more impressive than its beauty. But over the next ten years, more than a million trees are to be planted here, giving the area a completely new look. Given high land prices and the competition for land, this is a sensation. Yet this measure is just one of many aimed at greening half of the urban surface and making it more permeable by 2050 (O'Sullivan, 2018; Block, 2019).

The Italian architect Stefano Boeri, known for his "bosco verticale", forests integrated into high-rise buildings, has also taken the city forest as his model, albeit on a smaller scale. With his design for "Liuzhou Forest City", a district to be built in the mountainous region of Guangxi in southern China, he aims to overcome the contrast between artificial urban landscape and unspoiled nature, in the process inspiring the next generation of architects in Italy. Once completed, the city will not only accommodate 30,000 people, be completely energy independent and filter approximately 10,000 tons of CO_2 and 57 tons of particulate matter from the air. It will also convey a constant feeling of nature. Boeri plans to envelop entire office buildings, hotels, hospitals or schools in plant and tree worlds by settling 40,000 trees and about one million small plants of various species (Busnelli, 2017).



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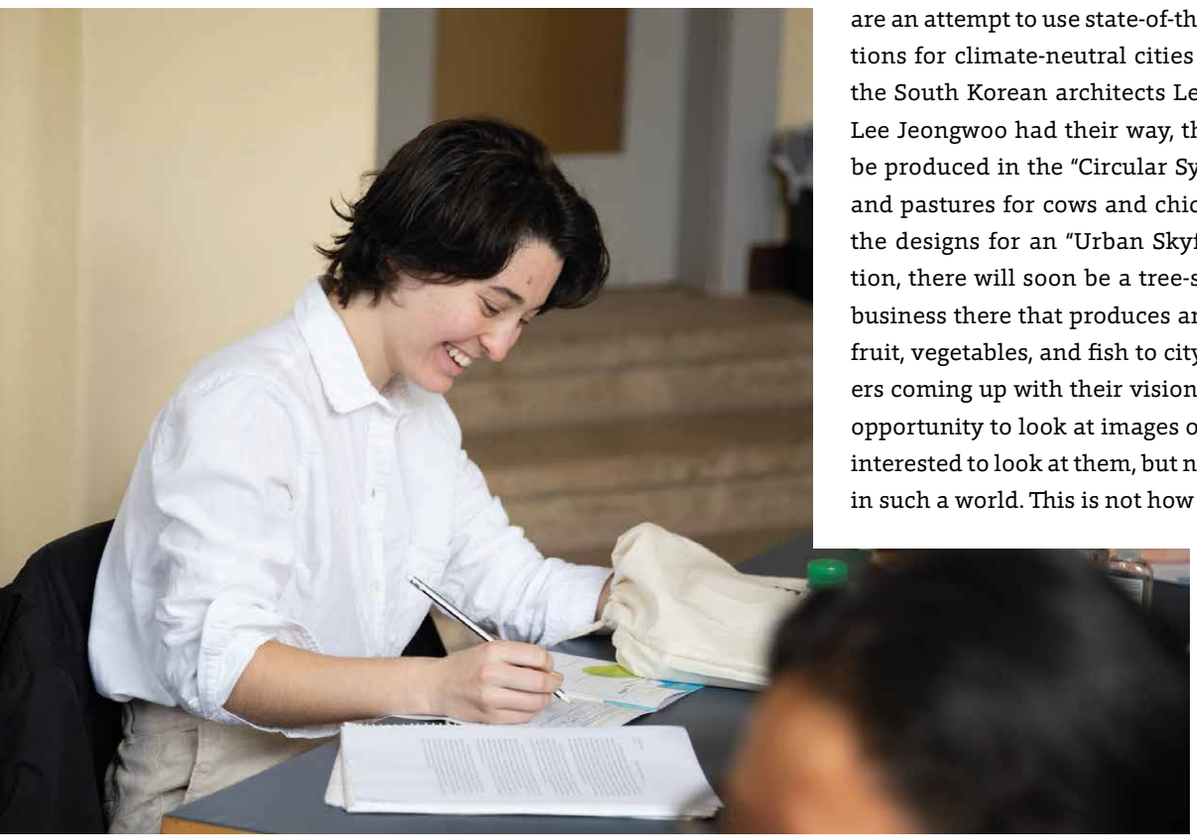
The smell of wood can strengthen the immune system

That feels good

Other visionaries in urban planning and architecture are also captivated by the fusion of nature and living. They are inspired by and adapt the forms, colours, and phenomena of nature. Building and architectural bionics give rise to skyscrapers that imitate entire trees and to residential buildings that resemble beehives. Architects experiment with new constructions and spaces that break down the familiar dichotomy between "inside" and "outside". They look for solutions that use natural building materials such as wood, clay or cork, materials that are climate-friendly, beneficial to health and good for well-being.

Wood in particular has a positive effect on the psyche and physical health of human beings. The smell of wood alone can strengthen the immune system (Li et al., 2009; in Ikei et al. 2017). According to the Australian environmental foundation PlanetArk (2015), staying in wood-clad rooms has a positive effect on human health similar to staying in the great outdoors. Wood is increasingly being used in the construction of hospitals, schools and recreation centres. In addition, timber construction is now also of interest for rapidly growing cities. The "25 King", a 45-metre-high wooden office tower in Brisbane, Australia, was completed in 2018, while in Vienna, the world's tallest wooden high-rise building (HoHo Wien) is currently welcoming its first residents.

The children, young people and adults with whom we worked were also fascinated by the feel of wood. It let them dream of a city of the future with a different atmosphere. At the beginning of the visioning workshops, in addition to the scent samples, they received tactile plates with five materials, including steel, sandpaper, rubber, textile and wood, which they touched without looking. Wood was the material of choice for most, followed by soft textile. They described the wooden surface as pleasant, warm and natural, saying it aroused feelings of security, home and happiness. They remembered lying in bed and thought of sunbathing on wooden walkways by the water or homemade furniture in community gardens.



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Urban Skyfarm

However, while some are thinking of a life in harmony with nature, deceleration, and recreation, others have set about drawing the blue-green city in the form of science-fiction-like, techno-natural visions.

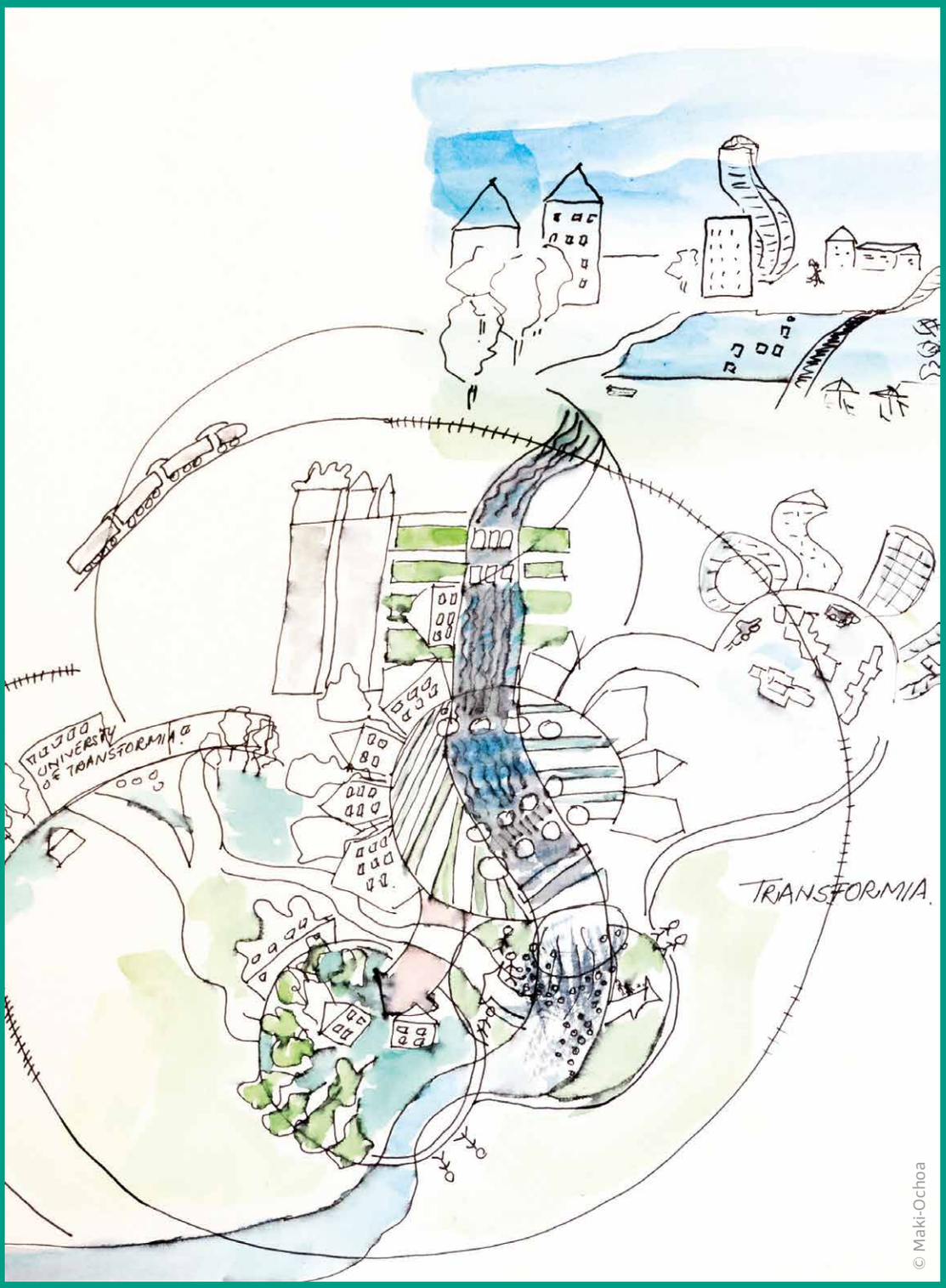
Many of these designs no longer have anything in common with wild park landscapes, natural oases, growing forests or the demand for a lifestyle that people dream of. Rather, they are an attempt to use state-of-the-art technology to find solutions for climate-neutral cities or urban self-sufficiency. If the South Korean architects Lee Dongjin, Park Jinkyu and Lee Jeongwoo had their way, the meat of the future would be produced in the "Circular Symbiosis Tower", with lawns and pastures for cows and chickens rising up to the sky. If the designs for an "Urban Skyfarm" in Seoul come to fruition, there will soon be a tree-shaped, vertical agricultural business there that produces and sells massive amounts of fruit, vegetables, and fish to city dwellers. The young Berliners coming up with their visions for the future also had the opportunity to look at images of these plans. Everyone was interested to look at them, but no one of them wanted to live in such a world. This is not how they imagine their future.

Green and blue are more than colours

The search for the urban landscape of the future is in full swing. Natural green and blue spaces are more in demand and more important than ever. Here people can relax and recuperate, read, stroll, chat and flirt, make friends, experience nature or simply enjoy doing nothing in an urban environment. They offer space for joint ventures, community projects, and protect fragile ecosystems. And they are accessible to everyone.

But the city of the future also needs technical innovation and sustainable building solutions. However, this should not be a race to add technology to nature, as in the case of the "Urban Skyfarm" or the "Circular Symbiosis Tower". After all, relying on technology leads to solutions that may appear green and sustainable at first glance, but in fact have no deeper benefit for the environment and the human psyche, and which, when it comes down to it, nobody really wants (Kindel, 2018). Green and blue are more than colours: they stand for a longing for nature and naturalness and for a different way of living.

Green and blue are more than colours: they stand for a longing for nature and naturalness and for a different way of living



5

THE CITY OF THE FUTURE IS A SOCIAL SPACE

How should cities be planned, built and organized to promote social interaction — and — social cohesion into old age?

A shared city or a lonely city, that is the question. And it's occupying more and more people. After all, the way we live together in cities will not only determine social cohesion, but also the mental health and well-being of each and every individual. Who benefits from social isolation and loneliness?

Certainly not the 120 utopians from the most diverse corners of Germany and Italy who explored the future with their senses. Their most fervent wish was for more community in the city, in eating, working, and living. In their ideal future there was joy in the air, people cooked, ate, and danced together outside, while adults had their inner child awakened in playgrounds for grownups. "In such atmospheres a more empathetic society is created", according to the students from Weimar. But in most cities the reality is different.

People often live in densely populated quarters but have little social contact with each other. This increases "social stress" (Lederbogen et. al., 2011). Although the sheer number of people makes social interaction more likely at first, it is the quality of social relationships that is important for our health and well-being (Umberson and Montez 2011). However, the increased anonymity and greater distances do not make it easy to integrate into a tight social network.

On top of that, the average age of the population is rising and more and more people are living alone. Even in New York City, senior citizens in single-person households are among the fastest growing group of people (Zukunftsinstitut, n. d.). So how must cities be planned, built and organized to promote social interaction and social cohesion into old age? An important starting point for this is the neighbourhood as a manageable spatial and social space, as the revival of neighbourhood platforms, neighbourhood festivals and neighbourhood gardens shows. But this is only the beginning. Everywhere, people's heads are teeming with ideas and utopias that point the way to a community city.

Public space is the gateway to a world of possibilities

7000 benches

Public space is the gateway to a world of possibilities. This is where encounters, exchanges and ideas are created; this is where community and democracy are lived and negotiated. When intelligently designed, these spaces promote individual well-being and social interaction.

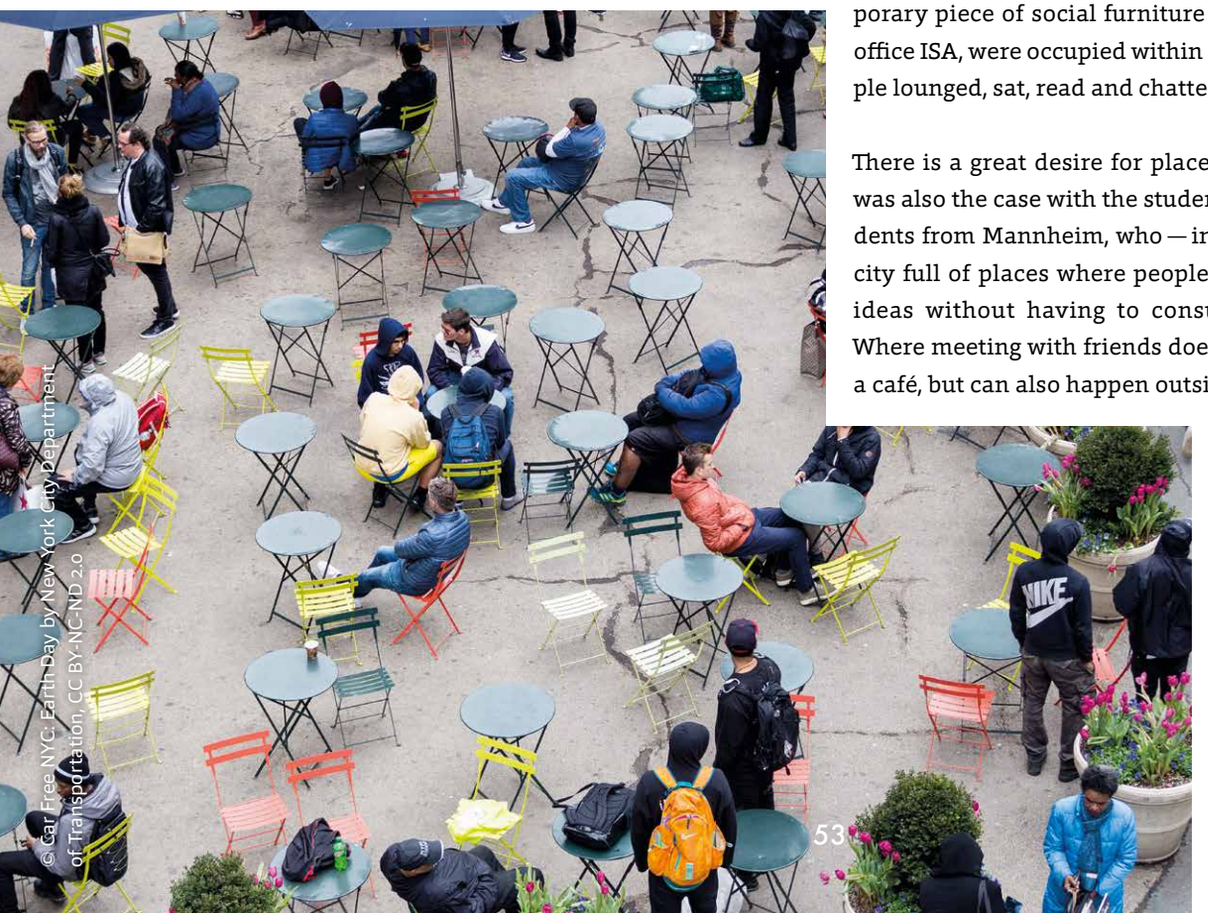
No expensive investments are needed for this. All one needs is the possibility to sit or lie down, as students from Berlin and citizens from Bochum discovered. Street furniture, whether round or square, small or large, is a place to linger; it invites observation, pause and spontaneous conversation. What sounds so trivial is hard to find in many places. Often the only places to sit down are bus stops, cafés or parks. Of the ten streets examined in Vienna, only two had seating that did not come with the obligation to consume something. This was totally unacceptable to the students of the University of Applied Arts Vienna. So they created the project 7,000 benches. Along with fellow students, they now want to create benches for public and semi-public spaces (7000 benches, n. d.).

Horizontally sociable

Not all seating is created equal, as the sociologist William Whyte recognised back in the 1980s. In his project Street Life, he investigated how one arranges objects in public space so that people like to linger there and engage in conversation with one another. He pleads for more freedom of choice, because people want to decide for themselves how and where they take a breath and relax (Berg, 2012).

This still applies today. Take Times Square in Manhattan. Visitors arrange tables and chairs however they like, whether to enjoy the last rays of sunshine or to get closer to their neighbours. People want comfortable street furniture where they can watch the hustle and bustle for a while, let their thoughts wander, or talk to the person opposite in a relaxed atmosphere. In Philadelphia, the seats in "Looped In", a temporary piece of social furniture set up by the architectural office ISA, were occupied within a very short time. Here, people lounged, sat, read and chatted with their neighbours.

There is a great desire for places for social gathering. This was also the case with the students from Berlin and the residents from Mannheim, who — in their visions — designed a city full of places where people could meet and exchange ideas without having to consume anything right away. Where meeting with friends does not always mean going to a café, but can also happen outside in busy public places.



Are you still stitting or playing already?

In addition to offering the chance for a nice chat, joint (playful) activities can connect people and bring them into contact with each other. In Berlin, at the ZEIT Online's Z2X-Festival, millennials imagined with knowledge playgrounds for young and old. In their imaginations, children would sit together with students and scientists in the sandbox and tinker with new irrigation sensors, or sit on the swing and discuss the next experiment. For each neighbourhood they designed new intergenerational learning places, with the aim of overcoming age segregation and building a bridge between young and old, and between science and practice.

The "21 Balançoires" project also relies heavily on play as a connecting element. On the assumption that more can be achieved through cooperation than through individual action, 21 interactive swings were installed in a Montreal district. If they are moved individually, different sounds are produced. If they are used together and coordinated, a composition of movement and sounds is created. This playful and collaborative exercise not only intuitively appeals to people of all ages and backgrounds, but also conveys a feeling of community and joy (Daily tous les jours, n. d.). 90 percent of surveyed swingers described their experience as "happy", and 30 percent got into conversation with people they did not know before (Quirk, 2018).

© Daily tous les jours. Photography: Olivier Blou

Joint playful activities can connect people and bring them into contact with each other

Social infrastructure reloaded

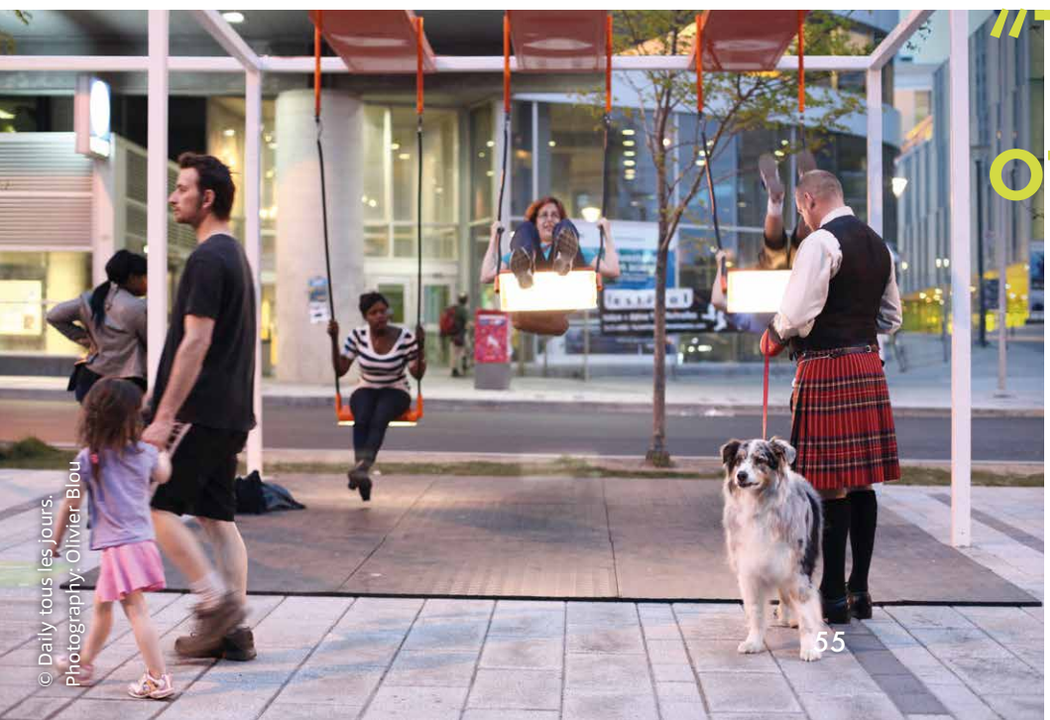
But constructed social infrastructure — from libraries to sports facilities — also enables public and social life, and is important in the fight against inequality, fragmentation, and polarisation, as Eric Klinenberg notes in his book "Palaces for the people".

© WTA Architecture and Design Studio

Sometimes, however, this major infrastructure requires some reconfiguration. Libraries are important for critical and active citizenship; they revitalize neighbourhoods and are essential "for coping with all kinds of personal problems — including isolation and loneliness" (Klinenberg, 2018). But how can they be sustainable in an increasingly digital society? It is almost impossible to keep up with the number of books available online. Using a network of mobile libraries that travel from place to place in Manila, "The Book Stop Project" is testing what the urban library of the future needs in order to become more attractive and accessible (Dimog, 2016). The inviting architecture, the positioning in public space, and the new distribution system sent visitor numbers through the roof and showed that libraries are much more than rooms full of dusty books. They are places for meeting, exchange and social participation — for everyone.

It takes a mixture of these structural and planning experiments and innovations to counter the hectic and cold of the city, and to create places to communicate, interact, linger and relax in the city. More precisely, it needs "The power of 10+", as postulated by the "Project for Public Spaces". People should have at least 10+ reasons to stay in a place, such as a playground, sports equipment, music and food, seating, potential for discovery, or simply the opportunity to meet people there (Pacheco, 2017). Only then will public spaces become more than just places to walk through on the way somewhere.

It needs "The power of 10+"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How do we want to live?

The design of public spaces is only one ingredient for a common city. For Elizabeth Burton from the Institute for Health at the University of Warwick, it is not only the density of buildings, but above all the form of urban density that is decisive in building up or reducing social stress. "Urban spaces that are configured to allow social interaction, but also private retreat, will become a benchmark for the healthy city of tomorrow" (Zukunftsinstitut, n. d.)

It is becoming increasingly important to have new usage concepts and housing types that offer possibilities for both meeting others and withdrawing as an individual and, in addition, respond to the needs of an ageing society. The growing number of single households is increasing social stress and the need for living space at a time when building land is scarce. New forms of communal housing, such as those being tested in co-housing or cluster housing projects, could therefore be the future (Frearson, 2018). A cluster apartment is a mixture of a shared apartment and a small flat: each resident has their own room with bathroom, while the kitchen is shared. In co-housing projects, in turn, a self-organized group of residents is involved in the planning, development, and management of the housing project. Projects of this kind are booming and are particularly attractive for single people, senior citizens, and families seeking a supportive environment. In addition, many of these projects are both community building and ecologically sustainable (Gladu, 2018).

The form of urban density is decisive in

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building up or reducing social stress

The city as a shared flat

The self-administered co-housing project "LILAC" in Leeds is a pioneer thanks to its high social and environmental standards and the innovative financing model — a so-called Mutual Home Ownership Society. People with low or variable incomes who would otherwise have a difficult time on the housing market can live here. The members are joint owners of "LILAC"; they buy shares, which they pay off with 35 percent of their monthly income, thus paying off the mortgage for the costs of the property and development. Just under 40 adults with children live here, in 20 apartments and houses with one to four rooms. Everything is shared in the many common areas: kitchen, workshop, work area, playroom and guest room. All buildings are made of natural materials such as wood, straw or lime, and they save energy thanks to the project's solar thermal and photovoltaic systems (Wohnbund, 2015). Social interaction is in harmony with nature.

Self-empowerment

"LILAC" also stands for something else, namely self-empowerment. People no longer want to be presented with ready-made solutions, but rather to help shape their living environment and the future of their city. This requires more than the familiar information and consultation formats. People are looking for new forms of dialogue; they want to help come up with ideas and make meaningful contributions when it comes to solving future tasks. They bubble over with enthusiasm when you let them build, tinker, and vision. It makes no difference whether they are primary school children from Finsterwalde, budding architects from Milan, or pensioners from Mannheim. However, you only get to know their wishes, hopes, and fears if you ask them and "tickle" them into action.

The projects "25 Questions for Cities" and "Die Offene Gesellschaft in Bewegung" show how this can be achieved. "25 Questions for Cities", an installation by C40, Arup, Interactive Spaces Urban Studio, the City of Copenhagen and the Ellen MacArthur Foundation, raises the big questions of our time and demands that we take a position. Should autonomous cars be the future or not? Should we punish the incorrect disposal of garbage or is it a matter for each individual? Do we want wild parks and green spaces to improve biodiversity, or do we prefer mowed lawns for a leisurely summer picnic? 25 traffic cones with digital applications invite you to think about it, to vote on it and to exchange ideas with others. The aim is to capture people's hopes and fears regarding the future of cities and to obtain a differentiated opinion.

Shaping the future is fun

The project "Die Offene Gesellschaft in Bewegung" by the Initiative Offene Gesellschaft e.V. decided to travel all over Germany to visit people — in the former East and West, in small and large cities — directly and collect their ideas for society and the future. The interactive travelling exhibition stopped off at 15 locations in Germany. Equal opportunities were discussed on a marble run, stickers were used to vote on more security or freedom in society, and places of open society were marked on large city maps. The three-wheeled ideas laboratory visited people in all corners of the cities to get into conversation. Using workshops and cards for writing down ideas, the project collected 1,300 suggestions for how to live together in the future in just one year, and visitors were able to marvel at them in the exhibition.

Going beyond seated participation rounds can release people's visionary energies. This was particularly evident in the sensory visioning workshops, where participants spent hours strolling through the city with all their senses alert, smelling scent samples, listening to rhythms or building the city of the future from cotton wool, moss, and wood — without any sign of fatigue. With the right formats, shaping the future is fun and makes sense.

2× © Camilla Siggaard Andersen, Arup → ←

With the right formats, shaping the future is fun and makes sense

© Initiative Offene Gesellschaft e. V.

On the way to a communal city

All these projects and ideas are already providing real and tangible utopias that show how a livable and communal city can succeed. They are a proven remedy against polarisation and loneliness and for quality of life, well-being, and healthy people.

They are quick to scale and not necessarily expensive. You just have to know where to start. Let's take the "Social Space Survey", developed by the Gehl Institute, to understand where there is still room for improvement. This is a quick and easy way to examine the "social status" of public space. Let's stand in front of the city hall and ask ourselves: is the space attractive for people with low income, accessible for wheelchair users, exciting for children, and versatile in its use? Would you like to wander around here and enjoy city life? Is it a place where you can get into conversation with other people? (Gehl Institute, n. d.). This is how we find the answers on the way to a communal life and away from the lonely city.

© Project for Public Spaces

for quality of life, well-being, and healthy people

6

© Fine Young Urbanists. Photo: Kaspars Kursišs

THE CITY OF THE FUTURE CREATES ROOM FOR EXPERIENCE

The experimental rooms on site are multisensory future spaces with the POTENTIAL TO INSPIRE.

Even if we are on the way to a humane and ecologically sustainable future, it would be illusory to believe that we already have the right solutions. A glance at the roads is enough to understand that there is still plenty of work to do to achieve transformative change. Colouring cycle paths is good, but shouldn't we reserve whole streets for cyclists and pedestrians? In the future visions of our utopians, whether young or old, from big cities or small villages, cars were in short supply. Here the city was conquered on foot, by bike, in express trains, and with free public transport.

The best way to climb the innovation ladder is to simply get started, try something out, test it, and have the courage to revise it. This is how the most sustainable ideas are born. Just think of Times Square in Manhattan, which is now a lively pedestrian zone. The foundations for this car-free promenade were laid ten years ago with just a few buckets of paint and folding chairs meant to mark a temporary traffic-calmed zone. Passers-by and tradesmen were so enthusiastic about the result that they no longer wanted to abandon the project, which was initiated by the city administration. Small interventions can achieve great things and make the seemingly impossible socially acceptable (Lydon and Garcia 2015).

Indeed, there is no getting around experimenting in the real world. Even the most visionary urban planners, architects, politicians or journalists often struggle to spontaneously think of their wishes and ideas for the city of the future. Or they repeat what the current discourse currently approves of. One's own ideas need space to develop. The path to the future must not be an abstract, purely cognitive process, but should be experienced sensually and emotionally and convey the experience of effectiveness. The feeling of how the city sounds and smells without cars, and how much community is possible on the newly acquired areas, leaves no one cold.

fits of public streets and spaces for citizens, the easier it is to do without a car (Reallabor für nachhaltige Mobilitätskultur, n. d.). These different interventions and innovations offer the inhabitants of this car-friendly city new perspectives and show how much livelier, livable, communal, healthy and active the future could be.

Such experiments support the search for visions and narratives for a desirable future. In the mode of the collaborative and experimental, the urban solutions of tomorrow will be negotiated, tested, and evaluated on the basis of their impact. In this way, the city is co-produced, under real conditions and not behind closed doors.

2× © Lewin Biskupski, Reallabor für nachhaltige Mobilitätskultur →

Tinkering with the future in real-world laboratories

There is no getting around experimenting in the real world

The "Real-World Laboratory for Sustainable Mobility Culture" in Stuttgart also relies on the real-world experience. Functional street furniture is sent through the streets here, raising the question: what will happen to the spaces that become available in the course of the mobility transformation? Who owns them? Who decides? Apps are being tested that encourage people to cycle via a reward system. The more kilometres riden, the more recognition, whether pretzels, discounts in shops, or the certainty of having reduced particulate matter, CO_2, and gasoline.

Stuttgart's Stäffele, small municipal staircases, are also being rethought and converted. After all, couldn't they be more than a shortcut? Public spaces for sporting activities, a stage for concerts or artistic interventions? The greater the bene-

A sneak preview of the future

The experimental rooms on site are multisensory future spaces with the potential to inspire. Nothing proves this better than the "Park(ing) Day", an annual global experiment that was created in San Francisco in 2005 and quickly achieved cult status, inspiring people all over the world to participate and imitate. On this day, parking lots are temporarily converted and transformed into open living rooms, outdoor kitchens, sunbathing lawns, playrooms and even green oases. There are no limits when it comes to imagining what one could do with all this street space (Schneider, 2017).

In the Latvian capital Riga and in the Taiwanese city of Kaohsiung, this idea of temporary spaces of possibility and experience has been expanded even further. In Riga's Miera Street, conditions were shifted for a whole week so that people could experience what the mobility turnaround would mean in concrete terms on site — what it would feel, look and sound like. While nine of a street's 17 meters are normally reserved for cars and pedestrians, with cyclists and tradespeople sharing the rest, blue parklets now mark an alternative reality. There is hardly any space for cars anymore. Instead there are opportunities to talk to strangers with pleasant background noise, such as trees rustling, to cycle through the street without fear, and to stroll and linger as one likes — without street noise and urban hand-to-hand combat (Public Space, 2018).

© Kaohsiung City Government

In Hamasan, a neighbourhood in Kaohsiung, residents were even allowed to walk, cycle, use public transport, shared vehicles, and electric vehicles for a whole month during the "EcoMobility Festival" in 2017 (ICLEI, 2017). Here it was all about leaving your car and experiencing how good exercise and fresh air can be — and how much freedom the city suddenly offers. This is where the future is staged, in real time, and the socio-ecological transformation can be experienced.

© Green City e. V. Photo: Maximilian Schmid

This is where the future is staged and the socio-ecological transformation can be experienced

© GreenCity e. V. Photo: Mark Noormann

Temporary interventions

Such sneak previews of an alternative future are sometimes so tempting that temporary experiments bring about permanent change and become a catalyst for urban transformation. For what begins as a short-term installation can create the basis for change. This was the case with the "Park(ing) Day", which laid the foundation for the Pavement to Park Program in San Francisco. Fascinated by the idea of sounding out spaces of possibility, the city is now opening up new places with its own parklets and transforming temporarily unused spaces into lively squares and parks (Schneider, 2017).

In many cities, temporary interventions and installations have already succeeded in permanently reclaiming closed spaces. In Paris, an approximately three-kilometre-long urban subway at the Seine is being converted into a permanent urban beach promenade. What began as a one-off event in the Saint-Quentin district in 1996, and later developed into an annual temporary bathing and beach spot, the "Paris Plages" will soon become a permanent reality (Schumacher, 2017).

In Bochum, the citizens in our workshop proposed reserving the city centre and the large ring road — which suffocates the city with exhaust fumes — for pedestrians, cyclists and e-buses every Sunday. The city residents, they said, should feel that what is good for the climate is also good for people. Bochum needs fewer cars and more green spaces, space for neighbourhood parties and, above all, peace and quiet, according to residents. As an incentive, everyone who leaves their car behind will receive a free public transport ticket.

These examples show that temporary, real-world experiments offer an effective way of taking abstract knowledge about the necessity of a mobility turnaround and making it tangible, both sensually and physically, and communicating it. It is precisely in this respect that they differ from many formal participation approaches and procedures that suffer from a "sensuality deficit" (Heinrichs, 2019b). The "inclusion of as many different dimensions of experience as possible" is essential in order to find the right solutions and motivate people to act (ibid.; Heinrichs, 2019a).

Paris, Plage. Paris, Francia by Laura Cuttier, CC BY-NC-ND 2.0

Test, correct, and restart

The experimental search for suitable solutions requires sensory experience, flexibility and open-mindedness. For it is "[n]ot whether the planning does the really right thing, but whether it could possibly reverse it, not the degree of certainty, but [...] the degree of revisability determines the rationality of politics. It is the task of criticism of our cities and their culture to strengthen such room for useful mistakes and ironic sense of possibility" (Häußermann and Siebel, 1987, p. 250)

The future is open, and this also applies to the city. In an open city, according to sociologist Richard Sennett, the journey is the destination, because the city is never finished. It is dynamic, constantly changing and full of unknown variables and contradictions. So we should say goodbye to the claim that we want to control everything from the outset and plan down to the last detail; otherwise in the worst case we will create solutions that are no good and that nobody wants.

If we want to make sure that the "built" and "lived" environment come closer together, and if we want to inspire people to shape the future, then we need a different approach to how we think about, plan, and build cities. This requires a willingness to experiment, an openness to learn from mistakes, to correct them, to develop them further and — if necessary — to start the whole thing all over again from the beginning. After all, experimentation is worthwhile in order to accelerate socio-ecological change and involve citizens in solving social challenges and shaping the future.

The future is open, and this also applies to the city

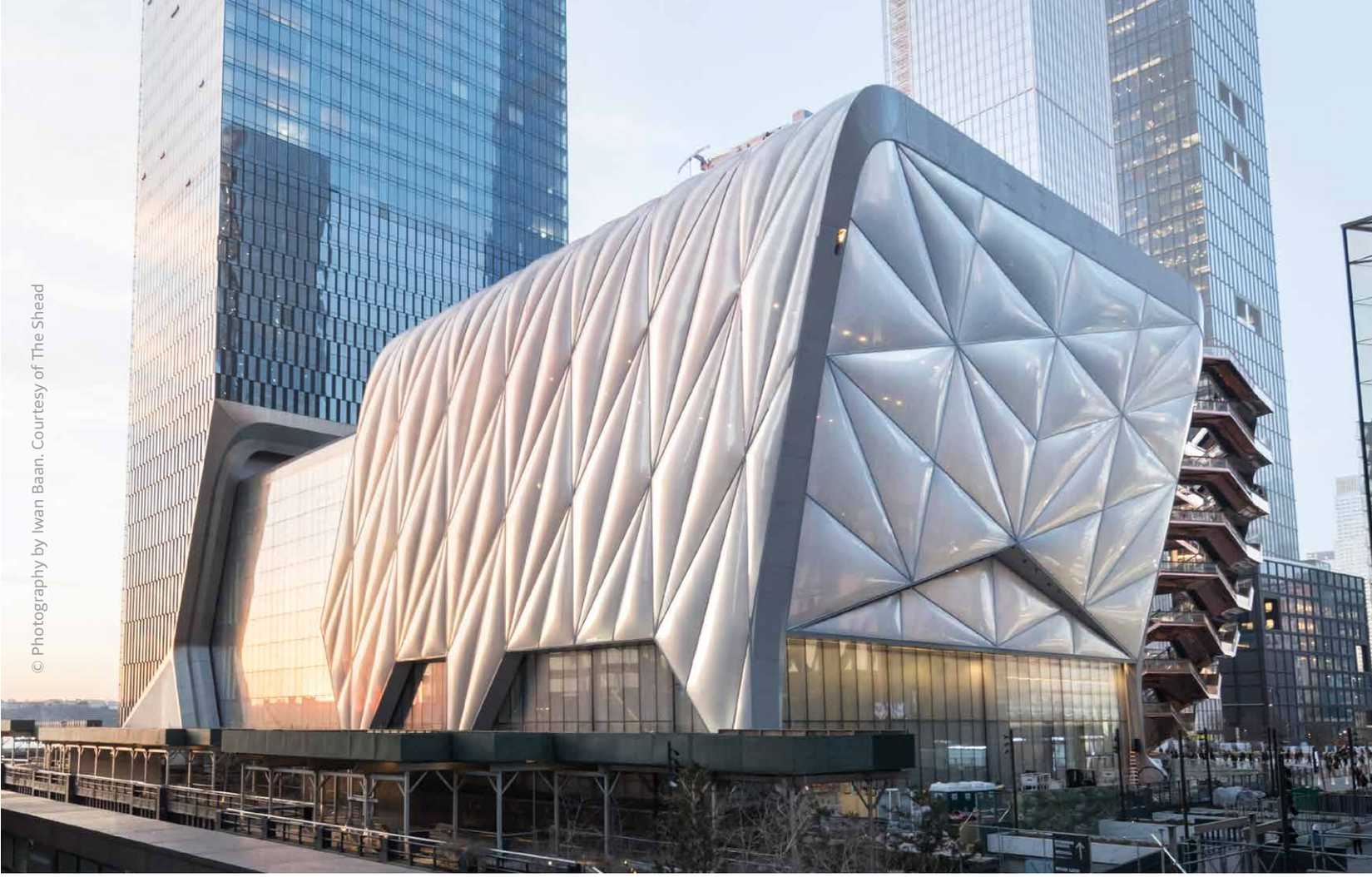
7

THE CITY OF THE FUTURE IS CONSTANTLY CHANGING

A highly mobile society needs fewer static solutions and more unfinished, flexible, ephemeral and reversible urban structures that are changeable in their functions and uses, and thus presumably more cost-effective.

The world is in turmoil, and many things seem to be changing: we have demographic change, climate change, structural change, lifestyle change. Only when we think of the city do we gladly succumb to the claim to eternity. Everything should be planned, regulated, and built decades ahead. We want buildings that will ideally last for the next 100 years, and we want to determine today where and how land will be used in the coming decades.

And yet the objective is to abandon this claim, the idea that what we know or think we know today will still be valid tomorrow. In principle, this is also the basic condition of the transformation mode (Carius, 2019). In the founding period of the post-fossil-fuel age we will have to experiment with flexible building constructions, changeable and mobile infrastructure solutions, and agile governance in order to adapt to changing social and climatic conditions and requirements. A highly mobile society needs fewer static solutions and more unfinished, flexible, ephemeral and reversible urban structures that are changeable in their functions and uses, and thus presumably more cost-effective.



© Photography by Iwan Baan. Courtesy of The Shead

It always turns out differently than you think

Take the construction sector. The demand for housing with limited building land is currently growing in virtually all urban centres in Germany. More and more people are moving to the large to medium-sized cities in the hope of finding a job there and making their dreams come true. It almost feels as if this has always been the case. Yet the situation looked very different not even ten years ago.

In the first decade of this millennium, hundreds of plots of land were sold at bargain prices in Berlin because the city needed money and its population was projected to stagnate. But contrary to expectations, the city has been growing by an additional 40,000 inhabitants annually for several years. Property prices have exploded, and the state of Berlin cannot avoid buying back property to somehow meet the growing demand for affordable housing. The problem is that real estate is now many times more expensive than it was ten years ago, as the purchase of 6,000 apartments in the districts of Steglitz and Reinickendorf for almost one billion euros shows (ZEIT Online, 2019). Or take Leipzig. The once "shrinking city" is now, two decades later, one of the fastest growing cities in Germany. Many apartments, schools and daycare centres now need to be built within just a few years to cater for the growing population.

But it is hard to predict how German cities will develop over the next 20 years. After all, not all factors can be planned for, especially not in times of digitalisation, climate change, and refugee movements. Perhaps the cities will grow even faster than previously assumed. Or the influx will dry up because small towns and villages, thanks to their low rents, will become alternatives to expensive metropolises, working digitally from a distance will be possible, and better public transport connections will make enjoying the country air possible. "Architecture for Eternity" is not the model for a financially and socio-ecologically sustainable future that is capable of change.

Architecture for change

For this future, we must think of building and architecture from the outset as much more flexible and adaptable. We must think like architectural disaster relief workers, who arrive "as quickly as possible on site and are so flexible that the buildings can react to the respective conditions […]" (Weißmüller, 2017).

Responsive architecture opens up completely new possibilities here. The term refers to buildings that change their shape, colour, or character depending on requirements and environmental conditions. In the future visions of the students in Milan, the buildings reacted to the weather, the mood of the people, and their needs for more or less light, for cheerful or calm colours. All it took was a click on the remote control and the exterior façade and the nature of the interiors changed: wood became cork or glass. In the eyes of these students, building materials of a virtual nature would be the non plus ultra. Not quite as futuristic, but nevertheless spectacular, is "The Shed", an art and cultural centre recently opened in Manhattan. By means of an outer shell that can be extended and retracted, flexible space solutions for thousands of people are created within a very short time. The "Building Raincoat" by Sidewalk Lab, which is currently being tested in Toronto, also plays with this changeability. It offers a flexible, modular construction that can be docked onto house facades depending on weather conditions and, thanks to the canopy, protects against the harsh Canadian winter and provides opportunities to do outdoor activities under shelter (Cogley, 2019).

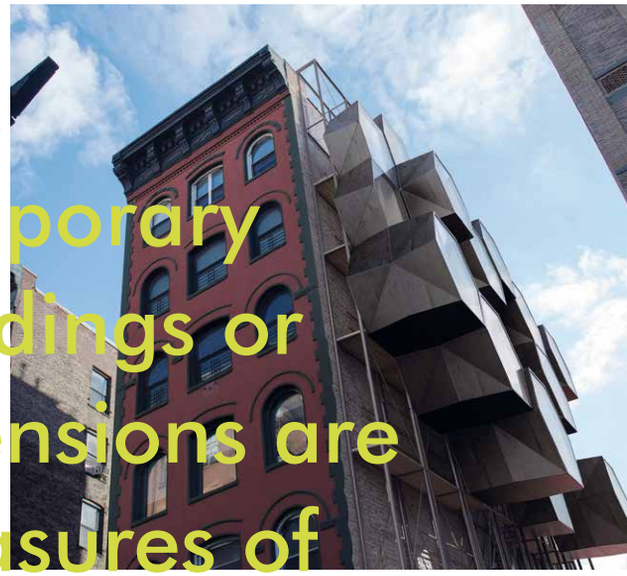
© Sidewalk Labs

© Image by Framlab. Depicted mural artwork by Viktor Miller-Gausa

Are the visionary ideas sustainable?

Today, we build, rebuild, or deconstruct quickly when change requires it. Yet, we do that with an enormous amount of effort, time and resources — such flexible or even temporary solutions can nevertheless fill an important gap. This is especially true in the highly competitive housing market in large cities.

For Framlab innovation studio, the high level of homelessness in New York City and the chronic overcrowding of shelters was simply unacceptable. So they rapidly developed a solution that allows homeless people to have a roof over their heads, at least temporarily — and quite prominently so. Since land for buildings is expensive, small hexagonal housing units reminiscent of honeycombs now hang from the outer facades of a wide variety of buildings. They are functional, flexibly configurable and can be easily dismantled should the situation improve (Gibson, 2017). For the architect Thomas Schriefers (2005), temporary buildings or extensions are "measures of the durability of visionary ideas" by which squares and public places turn into "places of calculated and provoked exceptions [...], places of simulation of a possible new reality [...], [and] places [...] of risk-free adventure where one can test their limits and transform participation. (p. 12 ff.)



© Image by Framlab

Temporary buildings or extensions are measures of the durability of visionary ideas

Temporary communities

This idea can also be applied to services of general interest and the provision of common spaces, libraries, cinemas or playgrounds. People are mobile, constantly moving — from one city to another, but also within cities. Yet we continue to think and plan social infrastructure statically. Couldn't mobile services create entirely new spaces of possibility here? Sounds reasonable, thought Raumlabor Berlin and Plastique Fantastique and sent the "kitchen monument" on the road. The monument is a prototype for the construction of temporary communities that adapts flexibly to its spatial and structural environment. If there is a tree in the way, the room simply has to deal with it. When inflated, the monument is a public space whose possible uses know no bounds: from a banquet hall to a conference room, cinema, concert hall, ballroom, dormitory, boxing arena, or even a steam bath, everything is possible (raumlaborberlin, n. d.).

The kitchen monument is a mobile social sculpture

The discussion room moves onwards

A small group from Mannheim had an almost identical idea, only much more sensory. The city lacks places where you can meet others, discuss and rub shoulders with them, they said. So young and old worked together to make an inflatable, transparent space that can be enlarged or reduced at will. In their imagination they let it wander, from quarter to quarter and city to city, placed it on squares and roofs and dreamed of setting up countless places like this all over Mannheim.

3× © Marco Canevacci ↙↓ ↑

Oval and without corners, it stands out from the often angular architecture. The dome is a room where people of the most diverse backgrounds, beliefs and ages can meet, pair up and converse. It is intended as a kind of citizens' forum. To encourage people to linger, they designed a soft, fluffy floor that smells of woodland and invites people to sit or lie down. Stiff, seated events should not be held here. They also gave the dome its own sound, so that Christians, Muslims and atheists feel equally at home. Since nature connects people, they suggested using the sound of a raindrop.

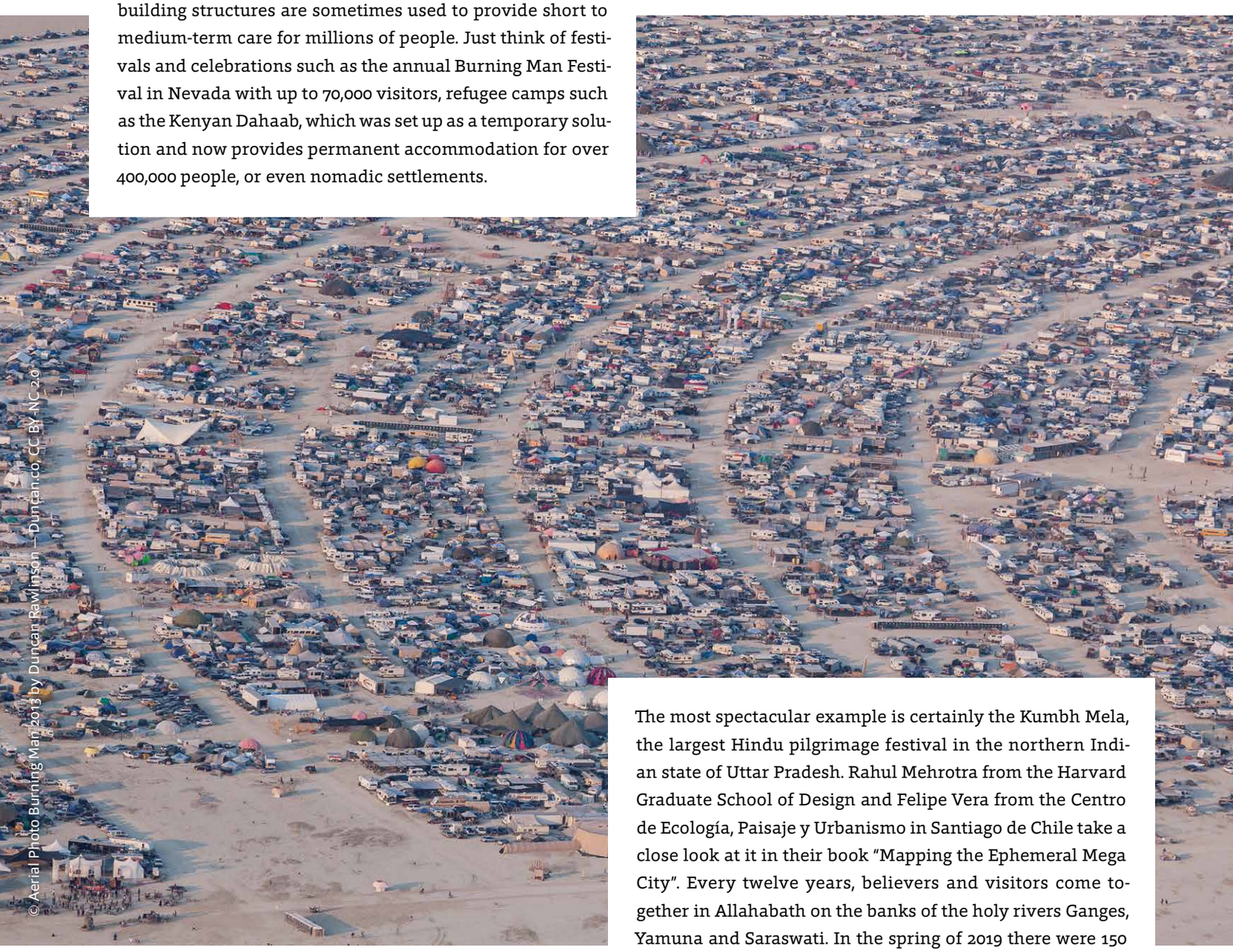
But these flexible and thoroughly sensual approaches are not only solutions for high-density, rapidly growing cities. This openness and adaptability is also essential in crisis areas and remote, often underserved places. This is the only way to react efficiently and creatively to the spatial effects of demographic, economic, and political changes. Mobile playgrounds or tax offices on wheels are being and have been experimented with in some cases (Nake-Mann, 1987). In Mannheim, a mobile library (MoBi) has been travelling around for more than 60 years to supply books to the peripheral districts that don't have permanent ones. In 2012, a Bibliobike — a tricycle with a suitcase attachment — began service as well. The aim is to delight book lovers on call in parks or swimming pools. It is time to scale up these approaches and take such solutions seriously.

Thinking of building and architecture as disaster relief workers

© Andrea Dieck

Ephemeral urbanism is astonishing

One can draw inspiration from the most extreme forms of temporary solutions — ephemeral urbanism, where flexible building structures are sometimes used to provide short to medium-term care for millions of people. Just think of festivals and celebrations such as the annual Burning Man Festival in Nevada with up to 70,000 visitors, refugee camps such as the Kenyan Dahaab, which was set up as a temporary solution and now provides permanent accommodation for over 400,000 people, or even nomadic settlements.



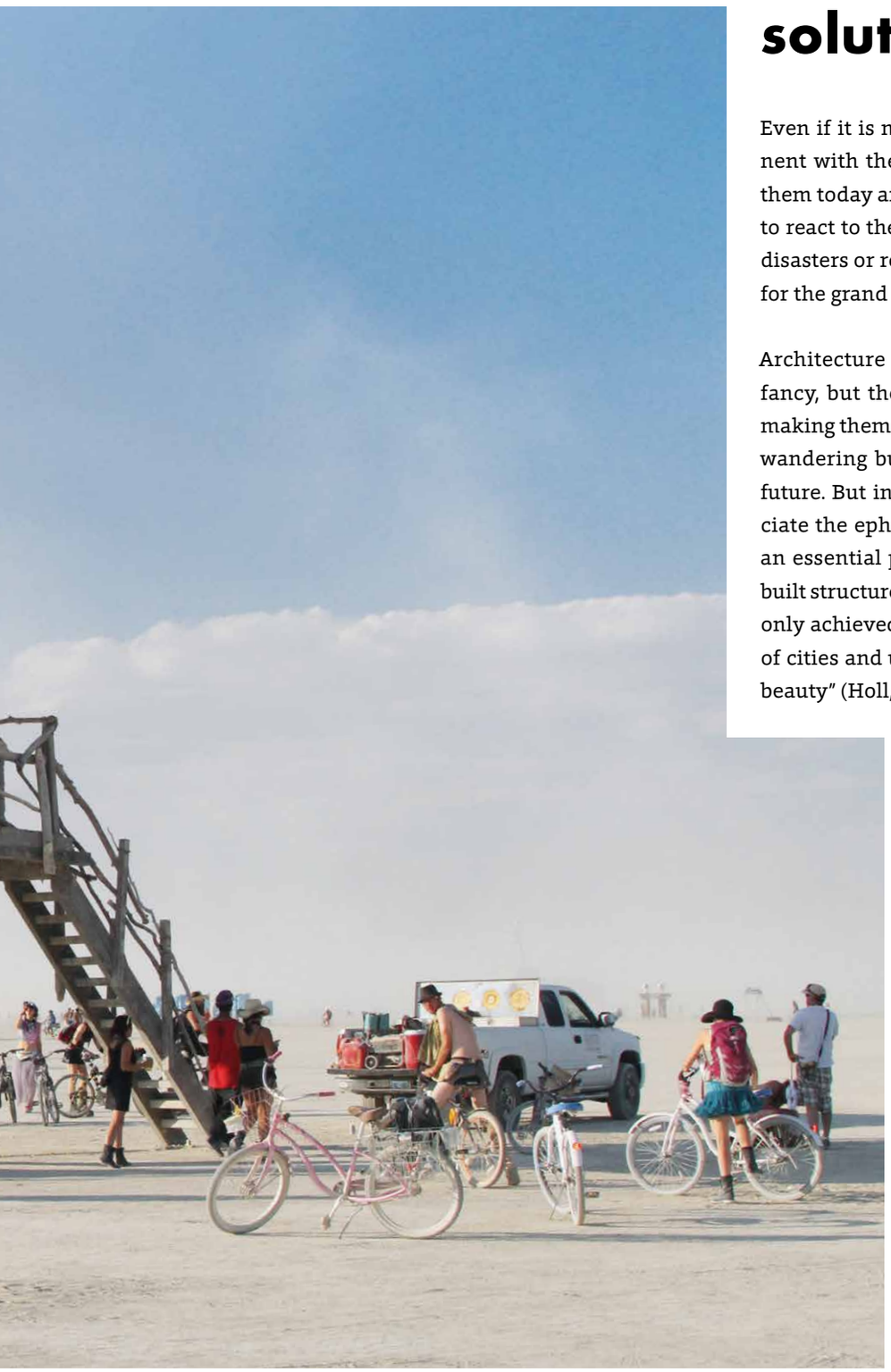
© Aerial Photo Burning Man 2013 by Duncan Rawlinson – Duncan.co CC BY-NC 2.0

The most spectacular example is certainly the Kumbh Mela, the largest Hindu pilgrimage festival in the northern Indian state of Uttar Pradesh. Rahul Mehrotra from the Harvard Graduate School of Design and Felipe Vera from the Centro de Ecología, Paisaje y Urbanismo in Santiago de Chile take a close look at it in their book "Mapping the Ephemeral Mega City". Every twelve years, believers and visitors come together in Allahabath on the banks of the holy rivers Ganges, Yamuna and Saraswati. In the spring of 2019 there were 150 million people at this six-week Hindu festival. A tent city, three times the size of Manhattan, is erected on 35 square kilometres, as well as a complete urban infrastructure with more than 120,000 toilets and 20,000 rubbish bins and a flexible governance system for a temporary city (Carius, 2019).

Climate change and natural disasters will not wait for the grand opening of a new building

GemGemRemy

Changing cities need adaptable solutions



Even if it is not a question of entirely replacing the permanent with the temporary, cities and buildings as we build them today are far too slow, ponderous, and static to be able to react to the changes of our time. Climate change, natural disasters or refugee and migration movements will not wait for the grand opening of a new building.

Architecture and building for change are still in their infancy, but they could fundamentally transform our cities, making them more mobile and interactive. Dancing facades, wandering buildings, inflatable rooms — this could be the future. But in order to get there, we need to learn to appreciate the ephemeral and transitory and recognize them as an essential part of the city. "Cities only live through their built structures if they create the space for life, and this is not only achieved by the permanent; the temporary is also part of cities and urban life — and the ephemeral determines its beauty" (Holl, 2017).

8 THE SENSE THE CITY PROJECT

How was Sense the City born?

When humanity has finished migrating to the cities, it is expected that three quarters of the world's population will live in urban areas. Today, cities are already responsible for 80 percent of economic output and three-quarters of all CO_2 emissions; they are home to people who are becoming increasingly segregated and have little to do with each other. If we want to make cities clean, healthy, just and humane — in short, sustainable — we have to think of cities in a completely new way. We need to think of them in bold urban visions, experimental images of the future, and as ongoing experimental spaces.

What is the idea?

But how and where do we find these images and visions of the future? In the spring of 2018, a team from the Berlin think tank adelphi simply got started and asked city planners, architects, politicians, journalists and citizens, both in Berlin and around the world, about their ideas for a humane urban future. What are their wishes, ideas and visions for life in cities?

Thinking about the future seemed difficult to many because they were overly caught up in the experience of the built city and in deadlocked discourses about the future and society. So we tried a different approach and asked how the city of the future should sound, smell, or taste, what light or colour and materiality it should have, and how it should feel. This sensorial probing helped to break through habitual thought patterns and open up new spaces for thinking and feeling from which previously unimagined and unheard-of ideas of an urban future then emerged.

How did we proceed?

We developed the results of the first sensory experiments into a systematic methodology, put them to the test again and again, and tracked down ideas for the city of the future in seven visioning workshops with 120 people. Whether residents of large or small cities, primary school pupils or pensioners, university professors or welfare recipients, budding architects or laymen — all used their senses for urban visions.

Since autumn 2018, we have been travelling for this purpose around various corners of Germany and in Italy. We let people of different origins, age groups, and social and professional backgrounds have their say. In the small eastern German town of Finsterwalde, primary school children made their colourful visions of the future out of paper. At ZEIT Online's Z2X Future Festival in Berlin, millennials developed ideas for green-blue cityscapes for all person. And at the XXII Triennale in Milan, architecture students worked on responsive building materials and weightless cities that offer space for everyone. In Mannheim, Finsterwalde, and Bochum, we cooperated with the Initiative Offene Gesellschaft e.V.[1] and used the action days on site to "work" with a wide variety of people on their visions for the future.

In our workshops, we combined sensory approaches with methods from futurology. We sent people on multi-sensory city walks; had them work in groups with samples of sounds, materials, scents, and tastes, as well as visual stimuli (photographs, colours); had them write narratives for the city of the future using scenarios; and use all human senses to develop prototypical visions of the future.

In selecting the methods and sensory stimuli, we drew on preliminary work from product design and design science, perceptual psychology, psychogeography, social and futurology research, and urban sensory studies[2]. A detailed description of the methodological approach can be found on our website (www.sense-the-city.org).

1 The project "Die Offene Gesellschaft in Bewegung" by the Initiative Offene Gesellschaft e.V. was funded by the Federal Ministry for Family Affairs, Senior Citizens, Women and Youth.

2 Among our most important sources were from product design: Kjellerup et al., 2014; Crippa et al., 2012; from perceptual psychology: Kryssanov et al., 2009; Gatti et al., 2013; Glass et al., 2014; from psychogeography: Ellard, 2017; from social and future research: Schulte-Römer, 2017; and from urban sensory studies: Sensory Think Tank, n.d.

To whom are the visions addressed?

The collected images, visions and stories for the city of the future spark anticipation, offer food for thought and create new perspectives. Let's use them! They should be taken up and further developed by city planners, urban designers and decision-makers of all kinds.

The project shows how much creativity, optimism, farsightedness and sensuality is in all of us, if we allow it to be. The methodology developed here has released visionary energies whose existence we barely suspected, and it has given the senses a right of co-determination in the discourse on the future. The wishes and dreams for the city of tomorrow call for imitation, further development, and scaling. You can find out how to do this on the folding poster and on our website (www.sense-the-city.org).

Sense the City was chosen from more than 100 entries as one of the ten most promising projects at Zeit Onlien's Z2X Festival in 2018.

We would like to thank all participants, partners and supporters, without whom this project and this brochure would not have been possible. Special thanks go to the Initiative Offene Gesellschaft e.V., the Bauhaus University Weimar, LXSY Architekten, and the Scent Club Berlin, who all supported the project from the very beginning.

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What kind of city of the future do you wish for?

In our project "Sense the City", we asked this question and went searching for people's ideas about the future – and we did so on the level of the senses. We wanted to know how the city of the future should sound, smell, taste, look and feel. We not only wanted to create new spaces for thinking, but also new spaces for feeling.

We spoke with people from different backgrounds and experts from various disciplines in a series of visioning workshops. We looked at their ideas and visions, evaluated them, put them together, developed them further and illustrated them with examples from existing projects. As a follow-up, we did research into existing and imagined utopias, which take up the ideas from the visioning workshops and break new ground.

These stories about the city of the future should inspire, provoke, raise questions and invite people to participate, imitate, and scale up these visions.

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