the public spaces of tomorrow

edited by Hanna Obracht-Prondzyńska & Magdalena Draheim

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Hanna Obracht-Prondzyńska

MSRL 3.0. was a project that consumed attention and required full engagement of organizers, participants and mentors. Surely, it would not be successful if not for the great atmosphere cared for by all the participants. Here, I would like to wholeheartedly thank those who became a part of MSRL family. Exceptional consideration should go to: **Ronit Davidovich, Rajendra Kumar, Sławomir Ledwoń, Lim Swee Keng, Karolina Wojnowska – Paterek** and **Elisabeth Belpaire** who, thanks to their visits in Gdansk, and a several-monthlong support from different corners of the world, the whole time inspired all of us to work on MSRL researches. This project would not end with such a spectacular success if not for doctoral students who supported students' teams and coordinated work inside the groups. But most of all, we would not be presenting this publication if not for the positive energy, persistence, and hard work of almost 30 students. All who have worked on the project deserve immense applause.

However, we must not forget that the project would not yield effects if not for the team of organizers, whose help proved essential. Here, firstly I would like to thank Magdalena Draheim for her hard work and an amazing and reliable engagement.

Magdalena Draheim

In the end, on behalf of the whole abovementioned team, I wish to thank the President of the City of Gdansk whose support allowed to create an international platform for research on the Public Spaces of Tomorrow.

The Public Spaces of Tomorrow – Planning and Design Manual Introduction

1. The Mentor and Student Research Lab – MSRL – concept evolves

1.1. MSRL as a platform for an international urban cooperation

The MSRL 3.0. research project was introduced as an international platform to promote collaboration of urban designers including students, early careers and professionals both form planning practice and academia with Gdansk acting as a hub for the research teams work. The aim of the third edition of this program was to define recommendations for designing the Public Spaces of Tomorrow. The international teams, working locally, by sharing experiences, proposed concepts for strategic interventions for future cities collected in this planning and design manual. This book presents on one hand the work format, research and collaboration concept as well as the achievements of an intensive program which brought together experienced urban planners with young and ambitious students and PhD researchers.

1.2. Aims and methodologies behind MSRL program

It is important to emphasize that the Mentor and Student Research Lab program evolves over the years. This book presents results of the third edition. However, the methodological approach and the concept of the program was shaped on the bases of two previous editions. So far, the MSRL program brought together 16 international mentors, over 20 PhD researchers, 120 students from 20 different countries and resulted with 4 monographs and conferences.

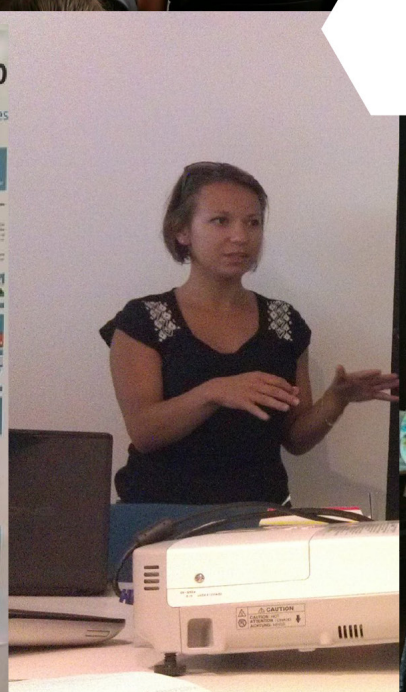
Despite the concept evolved and the coordinating team as well as participants are changing, the idea remains the same:

1. The program is to strengthen cooperation between experienced mentors, young professionals and students by inviting them to work on joint research projects focusing of current and most urgent urban challenges. Despite the fact the program focuses on research methodologies and processes, each time it results with recommendations of practical nature dedicated to urban designers, planning practitioners, NGOs, local governments, and students. We provide educational materials which can be used worldwide.

2. The MSRL program offers a complex package of everything we find exciting about academia such as sharing experiences, educating, developing skills, meeting people, internationalization and working in multicultural scientific society.

3. The participants of MSRL program work together regardless the research experience. It offers a shift from hierarchical academic structure to more integrated one. MSRL aims to

Mentor&Student Research Lab is a platform for cooperation between experienced mentors, young professionals and students on joint research projects focusing on current urban challenges.



build, strengthen, and integrate the academic society.

4. The program started before the Covid-19 era and introduced methods of e-teaching and e-learning. Within the program we focus on developing research and designing skills and how to do joint research projects internationally. MSRL aims to focus on research for design and design on the bases of the research. We not only e-teach and e-learn but also e-learn how to e-teach.

5. As the MSRL work focuses on formulating recommendations for practitioners, therefore the research teams design, create and test tools enhancing designing processes to be used worldwide. However, to make it possible, we care that each edition ends with sharing knowledge with the planning society, therefore we publish the outcomes if the teamwork.

1.3. Members of the MSRL 3.0. family

The MSRL is an intensive program which take 3 months, what includes in-person meeting at the beginning to integrate the new research team, define the scope of work and share responsibilities. The rest of the program takes place virtually with workshops evaluating the work.

With the MSRL program comes benefits but also responsibilities. We work together despite the academic role, however based on the experience everyone has assigned specific tasks to be fulfilled.

Mentors – experienced international professor and planning practitioners provide the research proposal and methodology which fulfill suggested topics proposed by the organizing team. In the third edition they were focused on updating the Public Space Planning and Design Manual. The mentors while leading the team prepare a research case study and supervise young research teams. They also support PhD students with their research skills and knowledge. The benefit for them is the chance to lead and shape urban focused research under their guidance and own design. It is also an opportunity to leas a dedicated team of PhD candidate and students who value they academic and professional input.

PhD students cooperate closely with mentors and co-decide on research topic and methodology as well as on preparation of the material. They are supportive to the Mentors while leading the team and contribute the team work with their own ideas and expertise. The PhD researchers are to lead the group of students and provide effective cooperative learning. The opportunity for the the PhD candidates if to conduct scientific research internationally and to improve the leading skills as they are in charge of organizing the group work and cooperation with Mentors. They have also a chance to master methodological skills, to publish the results and to deliver a presentation during a conference.

Students are expected to be actively involved in the international research work training activities and meetings. They should cooperate closely with mentors and other participants. The important benefit of the MSRL program is that they can be involved in the international work with a supervision of practicing urban designers. It can result with obtaining and gathering not only research but also professional skills. Most likely the program offers also a first chance to publish the research work and to present the results

MENTOR

Provide the research proposal & methodology which will fulfill suggested topics and will help to update the Public Space manual.

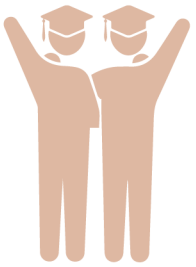
Preparation of the research case study (location which will be the base for developing the Manual). **supervision of your own young researchers team.**

support the (PhD) student team with your skills and knowledge.

Familiarity with the Public Space - Planning and Design Manual. **Been able to determine it's applicability for the case study of choice / country of origin.**

Chance to lead and shape an urban focused research under your guidance and your own design.

Opportunity to lead a dedicated team of PhD candidates and students who value your academic and professional input.



PhD STUDENT/

Cooperate with the mentor **decide on the research topic and methodology** as well as on preparation of materials.
**Most likely local PhD students will also support the foreign M+P partnership.*

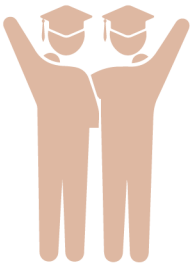
Support of the team with your own ideas and expertise.

Leadership of the group of students.

Effective cooperative learning.

Familiarity with the Public Space - Planning and Design Manual. **Ability to determine it's applicability for the case study of choice.**

the MSRL family



YOUNG PROFESSIONAL

Conduct scientific research internationally.

Publication of results & presentation during the MSRL conference.

Mastering methodology application.

Opportunity to **lead your own research group** together with your group's Mentor.

STUDENTS

Active involvement in **international research work.**

Active involvement in **training activities and meetings.**

Cooperation both with mentors and participants.

Responsibility for all the work of each member of the group.

Familiarity with the Public Space - Planning and Design Manual.

International work with supervision of practicing urbanists and architects.

Obtaining and gathering research and professional skills.

Published research work and opportunity to present during the MSRL conference.

Extensive knowledge of design process with high prospect for publishing internationally.

assume
everyone
brings something and benefits
from the program.

Everything we love about academia is offered as a one complex package of the MSRL program.

during international conference.

1.4. Previous editions – collected experiences

Before the third edition MSRL program was organized twice as an international research project in cooperation of the International Society of City and Regional Planners (ISOCARP), Faculty of Architecture, Gdańsk University of Technology, Mayor of the City of Gdańsk, Polish Society of Town Planners:

2015-2016 - **Vibrant urban solutions in Baltic Region** with the contribution of foreign experts: Martina van Lierop (Wageningen University), Pedro Ressano Garcia (Chair of Department of Architecture and Urban Planning, ULHT Lisbon), Giorgio Gasco (Bilkent University, Department of Architecture), Irina Shmeleva (ITMO University, Saint Petersburg), Othman Al-Mashhadani (University of Baghdad) and 60 students, 10 PhD students. The undertaken research topics were as follows:
1. Finding multifunctional spatial solutions to render Baltic cities and communities more sustainable through the concept of ecosystem services – theory and methodology
2. Baltic Sea climate fever. Creative solutions for waterfront cities in the context of climate change
3. Cities rising from the ashes. The identity of Baltic region cities destroyed during II world war in context of process of rebuild, architecture and urban design, guidelines for middle east cities wounded during the war
4. Re-articulation of Baltic coastal districts' identities from perception to practice. The case of the northern urban edge of Gdansk
5. Multicultural coastal cities: what are the differences in culture of urban planning management? Comparison analysis of Gdansk and Gdynia.

2014-2015, **Urban Transformations** with the contribution of foreign experts: Markus Appenzeller (MLA+ Rotterdam ,curator of the Post-graduate Master Program „Design of Urban Ecosystems" at ITMO, St. Petersburg), Alexander Boakye Marful (Architect and infrastructure planner in FICHTNER GmbH Co.KG, member of Royal Institute of British Architects, associated with Ghana Institute of Architects and African Good Governance Network), Christian Horn (School of architecture in Strasbourg), Richard Stephens (President ISOCARP, University of Oregon, Marylhurst University), Oscar Bragos (Urban Planning at Faculty of Architecture (Rosario National University), director of research projects financed by Scientific and Technical Research National Authority and by Science and Technology Secretary of Rosario National University, president of City Management Institute), 30 students i PhD students. The undertaken research topics were as follows:
1. Public space, planning & design manual,
2. The mobility boosters, improving sustainable mobility,
3. Smart infrastructure: case study of Gdynia, waterfront city,
4. What kind of city are we building? What kind of city do we want to build? Re-viewing three different urban developments in metropolitan areas,
5. Medium size south Baltic rim cities – improving by learning from each other.

The outcomes of the previous editions can be found in the books:

Ledwoń S., Obracht-Prondzyńska H. (eds.) (2016) Vibrant Urban Solutions for Baltic Cities. The Hague: ISOCARP. ISBN: 978-94-90354-48-0.

Obracht-Prondzyńska H. (ed.) (2016) Medium size south baltic rim cities – improving by learning from each other. Saarbrücke: Lambert-Academic Publishing. ISBN 978-3-659-77420-1.

Ledwoń S., Obracht-Prondzyńska H. (eds.) (2015) Urban Transformations. Towards wiser cities and better living. Gdańsk-Haga: ISOCARP. ISBN 978-83-63368-58-6.

Rusin M., Czajka P., Kreps J., Ghiselli N., Grędzicka A., Obracht-Prondzyńska H., Platt D., Potocka M., Potulska M, (Rusin M, Kreps J. (eds.)) (2014) Public Space Planning&Design Manual, Gdańsk-the Hague: ISOCARP. https://isocarp.org/app/uploads/2016/01/MSRL_public-manual.pdf

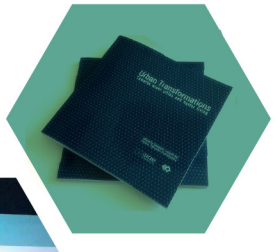
16
mentors

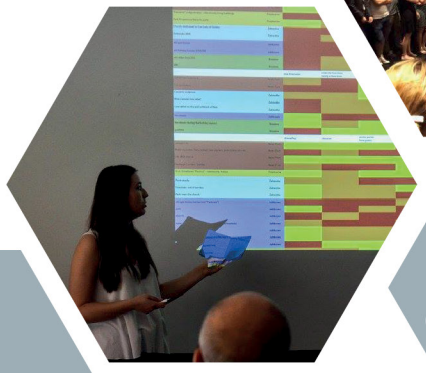
3
editions

120
students

The MSRL program evolves and changes on the bases of the experience collected.

MSRL
over the years



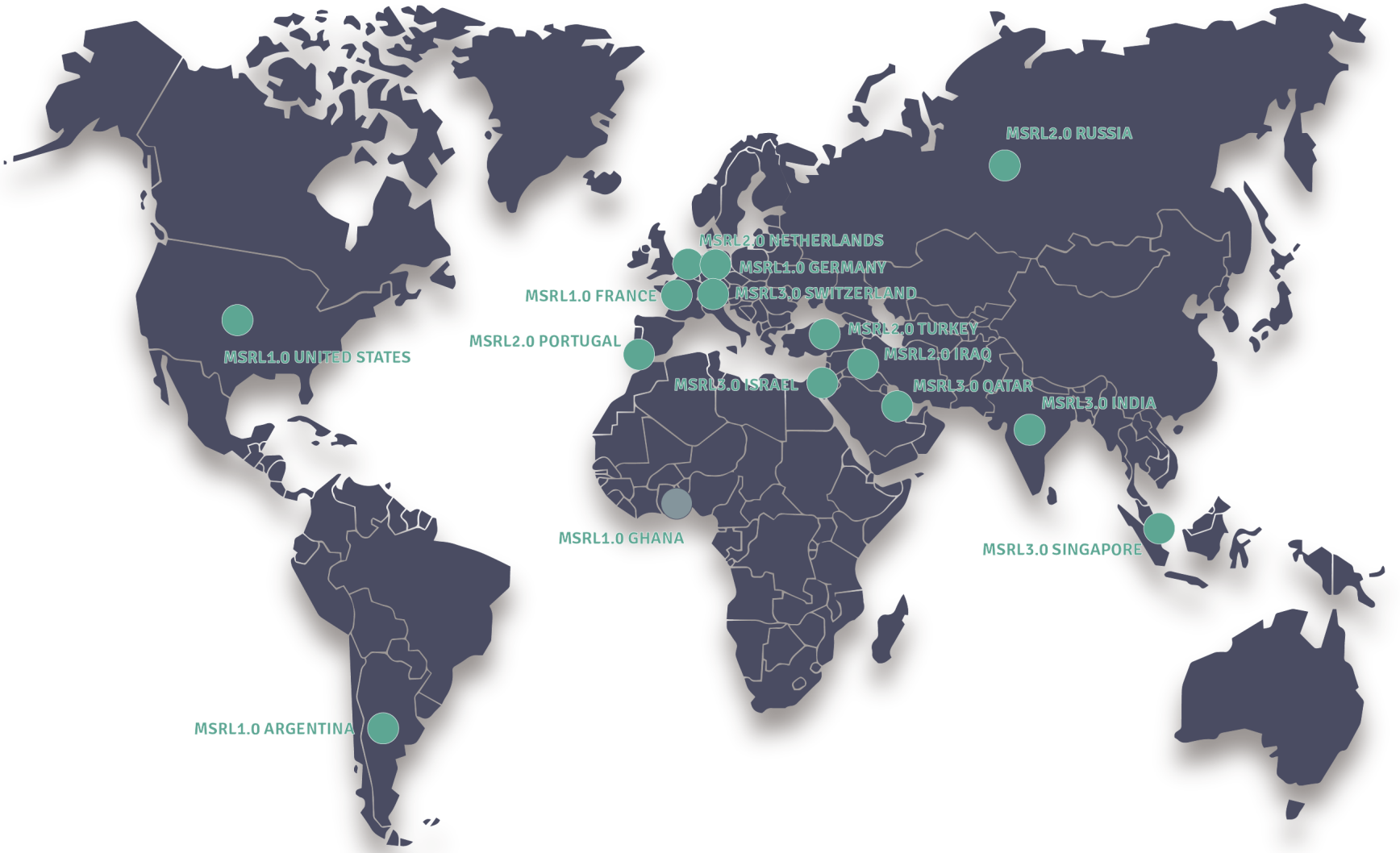


4
publications

4
conferences

21
PhDstudents

The MSRL program focuses on research projects



and internationalisation.

The MSRL family works together regardless the experience.

1.5. Base for MSRL 3.0.

During the first edition of the Mentor and Student Research Lab "Public Space Team" has created a unique guide to public space that encompasses the full spectrum of environmental design: urban/ spatial, community, collaborative, biophilic and experiential. Researchers gathered data and analyzed international public space development to determine innovative approaches to creating vibrant cities.

As the mentor of the team - Ric Stephens (University of Oregon) said:

> *The manual provides a holistic approach to planning for public space applicable to almost any city at any scale, from small village to megalopolis. Perhaps even more importantly, it is written in a "user-friendly" style that encourages city official acceptance and public engagement. It is our hope that this manual will be shared internationally to help create meaningful and memorable sense of place and sense of community for cities everywhere.*

The Manual was published in 2015, however since then many new urban challenges have occurred and the needs of the cities have changed. As the manual format was presented in such a way that it allows its further development, we, the organizers of the MSRL 3.0 decided to take a chance and enrich the so far results with new recommendations. Here came the idea for the theme of MSRL 3.0.

2. The MSRL 3.0 theme

2.1. Theoretical framework and suggested topics relevant to future urban challenges

The theme of MSRL 3.0. program was built on the bases of six different aspects relevant to the public space design which have not been included in the published planning and design manual from the first edition of this program. The themes are therefore as follows:

Gendered nature of public spaces and immigration engagement

What is the gendered nature of the public space? How can we gender create safer and more inclusive cities? Do different genders use public spaces in different ways? How can public space bring gender equality? What's the role of women in the creation of public spaces?
What's the role of public spaces for immigrants? Might immigrants be using the public space for different purposes than locals? How to engage immigrant communities in the creation of new public spaces? How can the institutional invisibility of certain immigrants be taken into account when designing public spaces?

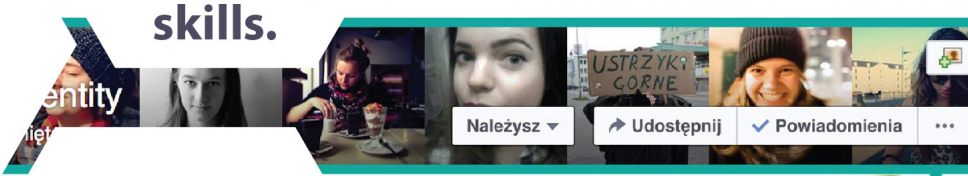
Rapid urbanization processes result more often with urban safety issues. Therefore researchers such as e.g. Asifa (2020) emphasize that making cities safe and sustainable means ensuring access to safe and affordable public spaces for all. This challenge is also widely discussed within Project for Public Spaces. While thoughtful programming public spaces may attract a diversity of people, while poor design can make public spaces ineffective. If not designed for the diversity, the potential users can feel uncomfortable and unwelcome (Peinhardt & Storring, 2019). In the design process, every choice counts when it comes to inclusion in a public space, therefore public spaces should offer maximum

The MSRL aims to build – strengthen – integrate the academic family.

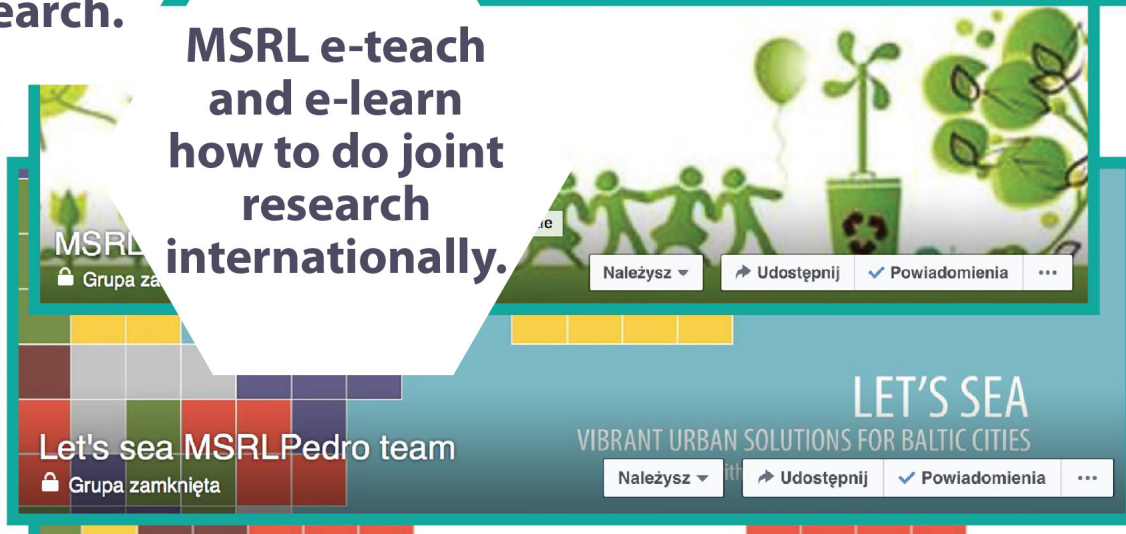
MSRL
e-teach
how to e-learn
and
e-learn how
to e-teach.

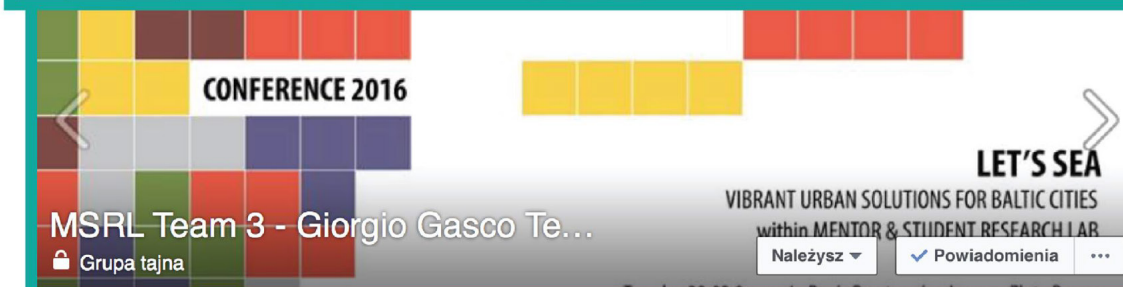
MSRL
develop
research
and
designing
skills.

MSRL focus
on research
for design
and design
on the bases
of research.



MSRL e-teach
and e-learn
how to do joint
research
internationally.



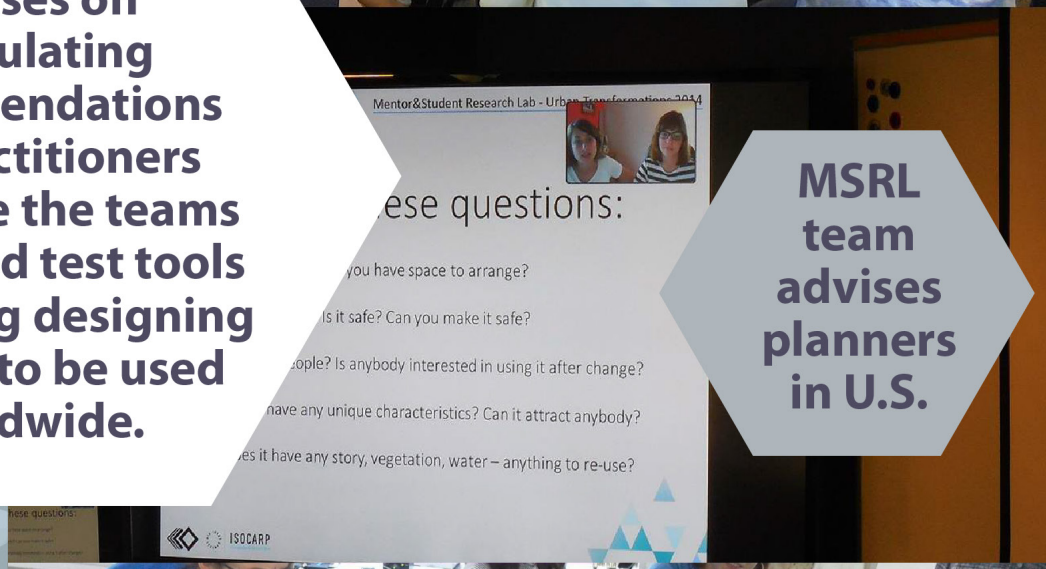


MSRL manual used for education in Moscow

The MSRL work focuses on formulating recommendations for practitioners therefore the teams create and test tools enhancing designing process to be used worldwide.

On Saturday we will show Mt Angel Community how to create great public space

Keep your fingers crossed for us !



MSRL team advises planners in U.S.

MSRL aim is to share knowledge with practitioners and to publish outcomes of the team work.

the MSRL mentors over the years


Giorgio Gasco (Turkey)


Richard Stephens (USA)


Irina Shmeleva (Russia)


Rajendra Kumar (India)


Markus Appenzeller (The Netrherlands)


Ronit Davidovich (Israel)


Karolina Paterek
Swee Keng Lim (Singapore)


Martina van Lierop (Germany)


Sławomir Ledwoń (Qatar)


Alexander Boakye Marful (Ghana)


Elisabeth Bepaire (Switzerland)


Othman Al-Mashhadani (Iraq)


Christian Horn (France)


Oscar Bragos (Argentina)

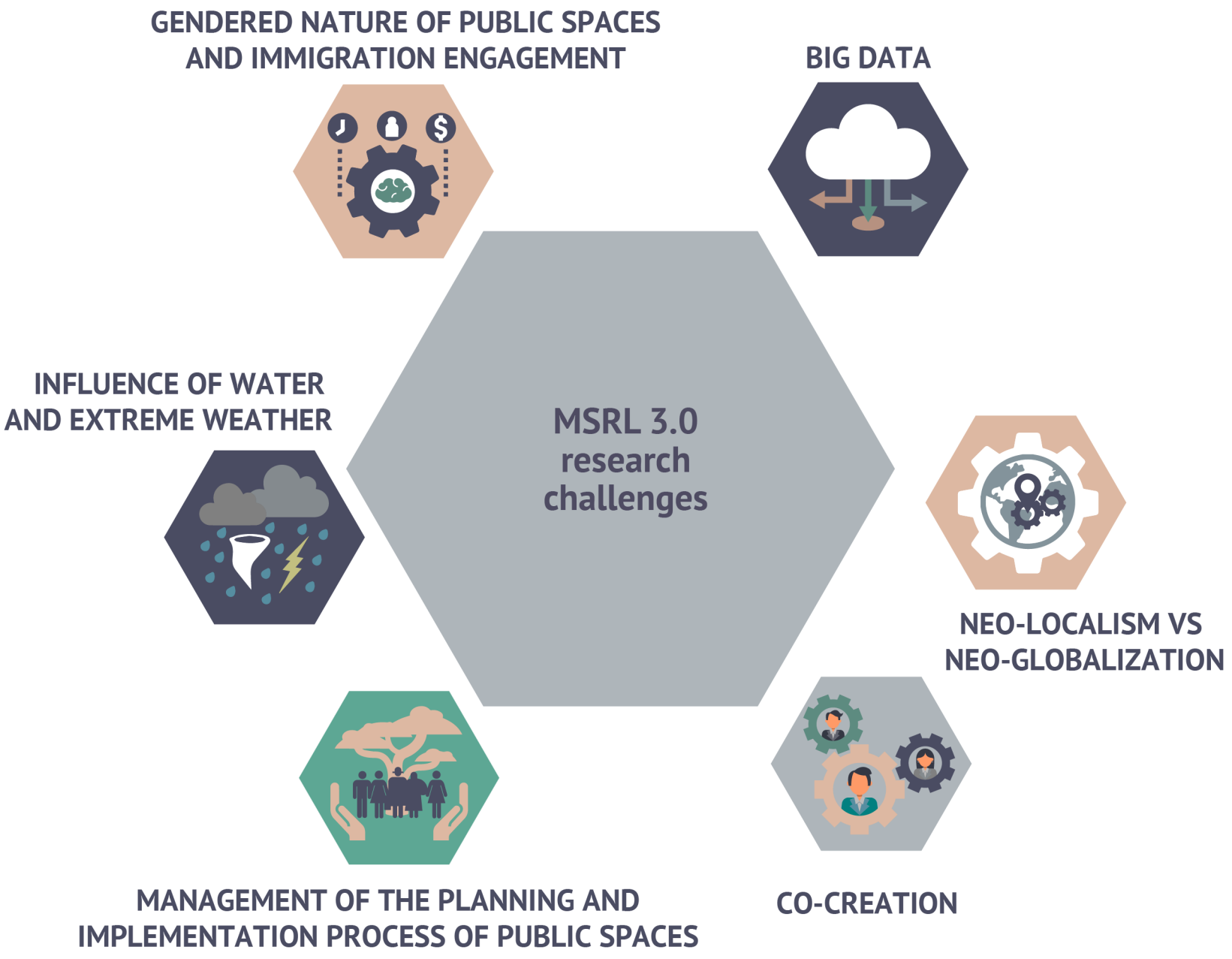

Pedro Ressano Garcia (Portugal)

accessibility. For instance, to make a place for people of all gender expressions, the key is not only creating a feeling of openness, but also making spaces exciting (Peinhardt & Storring, 2019).

Contemporary cities require the definition of key principles that could guide urban planners in providing inclusive and co-created public spaces. Bagni et al. (2017) emphases these design principles should include six broad themes of enquiry: participation, quality, diversity, accessibility, flexibility, and hackability.

Despite the knowledge, certain spaces become monoculturally dominated, undermining the intention for public spaces to be democratic places for all (Landman, 2020). As the need of reconsidering the nature and use of public space was found, many researchers tackle the challenge of rethinking practices of mitigation, adaptation and transformation. The development of public space is highlighted as important in the Sustainable Development Goals and in the New Urban Agenda and become the focus of movements such as New, Sustainable and Tactical Urbanism (Landman, 2020). Without any doubt we should improve the degree of accessibility of spaces and assets for public use, thereby contributing to the processes of social inclusion and empowerment of communities for a sustainable transformation of the habitat (Garofolo, 2015).

The contemporary cities are facing changing conditions resulting from, e.g. migration flows what brings new diversity to urban spaces. Planning processes therefore should consider multicultural dialogues and offer a design for diversity, gender and immigration equity (Sata, 2013). Additionally, cities worldwide face the challenge of persistent social polarization which brings the need of facing different attitudes toward public spaces and the need of migrants integration. Liu, Tan, and Chai (2019) argue that neighbourhood planning of public spaces should incorporate elements from social projects that facilitate meaningful interaction between native and migrant residents to achieve the goal of


GENDERED NATURE OF PUBLIC SPACES AND IMMIGRATION ENGAGEMENT
BIG DATA
INFLUENCE OF WATER AND EXTREME WEATHER
MSRL 3.0 research challenges
NEO-LOCALISM VS NEO-GLOBALIZATION
MANAGEMENT OF THE PLANNING AND IMPLEMENTATION PROCESS OF PUBLIC SPACES
CO-CREATION

building an inclusive city. The approaches to design and use of public spaces widening their social relations play a significant role toward social integration (P. Q. Huong et al., 2021).While designing everyday spaces we should be aware of cultural differences in images of nature and landscape preferences (Buijs, Elands, & Langers, 2009).

Surely physical accessibility facilitates inclusion and results with social engagement, however the design should consider wide spectrum of different users and their needs. The contemporary urban design rarely respond to the needs of young people and ways they may use public and community spaces (Crane, 2000). Further, it is argued that the role of design along with child-friendly indicators and locally important factors need to be better strengthened when planning future family-friendly city spaces (Krishnamurthy, 2019). Inclusive design and planning can encourage children's spatial mobility in public spaces (Haider, 2007).

Another aspect in terms of inclusiveness and designing for diversity is the limitation of participatory approach. Gender equity, migrants presence or children's active participation in decision making process is not ensured (Haider, 2007). Cities should offer inclusive and culturally-sensitive public spaces, which catalyze a 'sense of belonging' and 'sense of place' among migrants (Gholamhosseini, Pojani, Mateo Babiano, Johnson, & Minnery, 2019). However, to achieve such a result we need to explore how marginalized groups are included in the public (Staeheli, Mitchell, & Nagel, 2009). In-depth understanding of space appears as crucial for multicultural cities of gender equity (Johnson & Miles, 2014).

Co-creation

How communities affect the creation of public spaces? How self-organization is changing the role of planners and governments? How informality can be included in formal developments? How institutions can use self-organization and co-creation as city making instruments?

Citizens around the world are becoming more involved in the creation processes of various fields (Eggertsen Teder, 2019). The public value is no longer created by the governments only but it is based on cooperation between the public entities, private sector, NGOs and most importantly citizens (Mačiulienė, 2018). While traditional approaches to public engagement and governmental transformations remain relevant, at the same time we can observe growing potential of networked urban communities to solve the social problems (Mačiulienė, 2018). It results with the need of new ways of thinking, change of attitudes and an openness to innovative working models and collaborations in contemporarty cities (Björkmann, 2020). In this place appears the concept of co-creation extending co-design approach (Šuklje Erjavec & Ruchinskaya, 2019).

Co-creation should be defined as a multistage process that contributes to inclusive public spaces, providing social sustainability of place (Šuklje Erjavec & Ruchinskaya, 2019). The aim of such an approach is that by e.g. place-making initiatives the participant involvement increases and interaction quality is achieved (Eggertsen Teder, 2019). However to make the process successful it need to be carefully embedded in the spatial development timeline (Goličnik Marušić & Šuklje Erjavec, 2020). It should consider a variety of aspects to transform public open places into co-created spaces: socio-cultural contexts, multi-stakeholder perspective, diversity in needs, incentives for participation of different groups and cooperation capabilities (Maciuliene, Skarzauskiene, & Botteldooren, 2018).

CHILDREN IN PUBLIC SPACES - DEFINING THE DESIGN FEATURES OF PUBLIC SPACES TO BE CHILDREN 0-5 AND THEY CARETAKERS FRIENDLY

MSRL 3.0 WORK

A REGENERATIVE APPROACH IN THE DESIGN OF PUBLIC SPACES - THE DESIGN THAT ENABLES ZERO PLASTIC WASTE

MSRL 3.0 WORK IN PROGRESS

ACTICITY - HOW TO MAKE PEOPLE MOVE

MSRL 3.0 WO

THE PUBLIC SPACE AS A CATALYST OF 'TOGETHERNESS' IN THE GLOBAL CITY

MSRL 3.0 WORK IN PROGRESS

DESIGNING PUBLIC SPACE OF TOMORROW IN THE CONTEXT OF THE CLIMATE CHANGE

MSRL 3.0 WORK IN PROGRESS

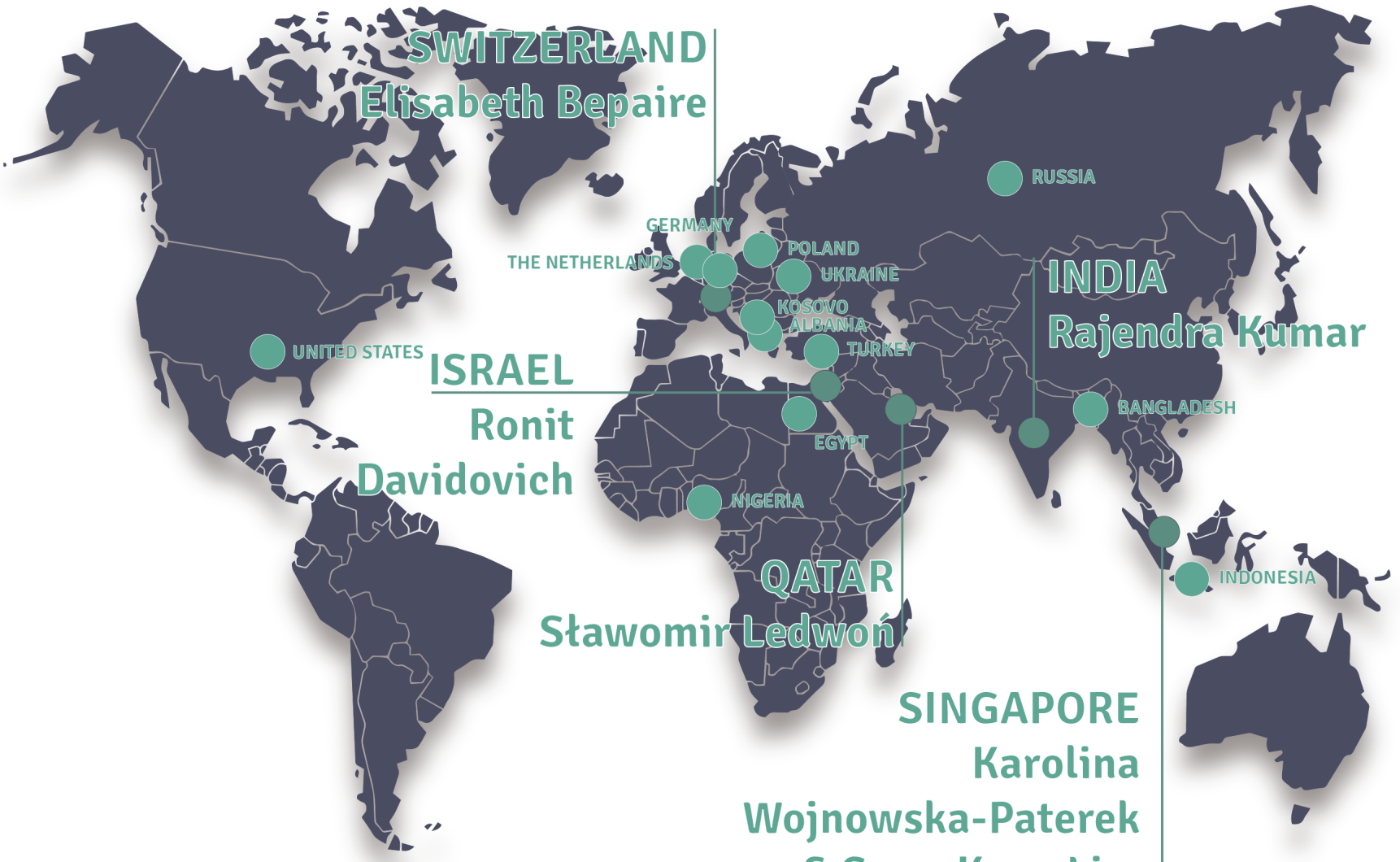
The role of co-creation is involving citizens in placemaking approach and further shaping adaptive processes (Menezes & Mateus, 2020). It promotes participation in cities and offers a shift toward being a top-down to bottom-up process (Leino & Puumala, 2020). The challenge which appears is the coordination of involving a multi-directional approach to problem solving (Leino & Puumala, 2020).

From the definition co-creative approach should lead to the improvement of spatial use and quality (Smaniotto Costa et al., 2021). In results the cities should offer safety and equity in public spaces (Miles, 2021). To make sure such aims are achieved we need carefully designed mechanisms and assessment frameworks allowing evaluation processes and social engagement (Maciuliene et al., 2018). The user-driven approach, do-it-yourself mindset, and the participatory character these days become a key to create well-function public spaces and inform social innovation as well as city's policymaking (Mulder, 2012). The researchers worldwide search for tools which can help to achieve the quality of life and environment on the bases of co-creative approach. Living labs and prototyping were recognized as supportive in shaping bottom-up approaches to city planning (Mulder, 2012). However surely digitally supported cocreation within public spaces can influence community involvement (Goličnik Marušić & Šuklje Erjavec, 2020). Digital communities is what the cities may need in the near future, therefore we need to consider ICT tools as supportive for inclusive public spaces design (Goličnik Marušić & Šuklje Erjavec, 2020). Goličnik Marušić & Šuklje Erjavec (2020) argues that such solutions can bring results such as increased public engagement in all activities as well as a high level of collaboration and participation. Digital tools may help to overcome challenges of co-creation and provide an opinion on the contribution of digital technologies to the co-creation process by engaging people in the design, use and management of public spaces (Šuklje Erjavec & Ruchinskaya, 2019).

Management of the planning and implementation process of public

Nowadays, we already know quite a lot about successful public spaces and their management, yet, how is it possible to get local and national governments more involved in their management? How emerging management approaches will evolve in the future? What's the degree of success of different implementation strategies, and which are the key elements of their success? How bottom-up and public private partnerships can evolve in the future?

The MSRL 3.0 brought researchers and new members of the MSRL family



from 20 different countries...

Despite urban discussion on enhancing participatory approach in urban planning, the civic engagement in public space design as well as in decision-making processes is notably limited (Felt & Fochler, 2008). Some authors, in terms of management of public spaces, argue that there is a need of reshaping and refocusing urban governance approaches (Magalhães & Carmona, 2006). Still however, very little is known about citizens' perspectives on public engagement in the urban governance (Felt & Fochler, 2008). The contemporary urban processes call for approaching the design of public space through community building (Xu, 2020). To do so we need to provide a holistic in-depth approach in understanding the complexity and quality of the place-shaping processes in public spaces.

It results from the sense of dissatisfaction and pessimism about the state of urban environments, particularly with the quality of everyday public spaces (Carmona, Magalhães, Hammond, 2008). Explanations for this have emphasized the poor quality of design that characterizes many new public spaces; spaces that are dominated by parking, roads infrastructure, introspective buildings, a lack of enclosure and a poor sense of place, and which in different ways for different groups are too often exclusionary (M. Carmona et al., 2008). As a response researchers such as e.g. Zamanifard, Alizadeh, & Bosman (2018) propose a framework of the mechanisms of successful public space management which encompasses four major components of 1) actors and stakeholders, 2) governance structure, 3) governing tools, and 4) governing tasks. However critical roles of local governance, planners and local leaders is to ensure that the public interest is fully served by public spaces (Matthew Carmona, 2019).

Public space management should be universally an important concern. However, at the same time it requires innovative practices in the local management as well as public sector responsibility is in the need of significant investment and reform (Matthew Carmona & De Magalhaes, 2006). As the public space management remains a fragmented area of local government activity, a number of local authorities are beginning to establish a corresponding bottom-up agenda that seems to map a potential way forward for the future (Matthew Carmona & De Magalhaes, 2006). Surely therefore we need a citizen dialogue kit which includes good practices on e.g., public polling mechanisms and data visualization displays which can enable and support bottom-up citizen participation (Coenen, Houben, & Vande Moere, 2019).

Our role is to demonstrate the role of bottom-up public space design an management in fostering social cohesion (Calderon & Hernández-García, 2019). To do so we need to make a step further in developing participative methodology to guide stakeholders and local governments (Coenen et al., 2019). What could be considered as helpful is the introduction of public space index which could help to assess the quality of public space by empirically evaluating its inclusiveness, meaningfulness, safety, comfort and pleasurability (Mehta, 2014). On the other hand local governments should be supportive for the active communities and stimulate the engagement of stakeholders. Therefore, bottom-up initiatives should be embedded in the local spatial agendas. Only when introducing proper management we can ensure quality and overall success of public space (Praliya & Garg, 2019).

Influence of water and extreme weather

How design can influence the degree of impact of extreme weather events? Which are the design strategies that can help us alleviate rising average temperatures and the effects of sudden downbursts? How can we adapt existing infrastructures for the effects of climate change?

The cities today face the consequences of climate changes. Above all core features, the most urgent which appear are the increasing flooding risk, high emissions, heat islands and extreme weather conditions. Additionally, public risks associated with climate change are uncertainty about the effects of carbon dioxide emissions, broad distribution, and planning processes not keeping up with the challenges that arise (Berke & Lyles, 2013). At the same time traditional planning paradigm is chronically deficient in addressing public risks resulting from the major challenges of climate change (Berke & Lyles, 2013). Despite the knowledge adaptation policies implementation appears at present to be still relatively low priority issue (Carter, 2011).

Surely the changing climate has a significant negative impact on urban environments, influencing thereby the quality of life of urban residents and causing a range of problems in urban areas worldwide (Tóth, Halajová, & Halaj, 2015). Climate vulnerabilities becoming central as has direct implications for urban processes (Carter, 2011). With such a knowledge the question addressed by many researchers is how to make a city climate-proof (Kleerekoper, Van Esch, & Salcedo, 2012)? The adaptation processes of the cities emerge as one of the greatest challenges that urban planners will face in this century (Sturiale & Scuderi, 2019). As so, there is need to investigate the linkages between adaptation and climate mitigation (Landauer, Juhola, & Klein, 2019). And further to define and predict the influence of climate change on the local climate diversity and variability (Roshan, Oji, & Attia, 2019).

Based on climate change literacy, some authors argue that we can manage urban vulnerability through the design of a public space (Silva & Costa, 2018). When approaching urban design as responsive to climate change mitigation, it may endorse an increased common need for action and the pursuit of suitable solutions. As so, local know-how and locally-driven design can be considered as a service with added value for adaptation endeavors (Silva & Costa, 2018).

However, city-wide planning directives addressing climate change are still not fully translated at the local-neighborhood level (Kozlowski & Yusof, 2016). The research gap which appears is therefore the need of finding relationships among public space design, infrastructure, and urban development, emphasizing the importance of joining the three to achieve urban climate resilience and enhance sustainability (Silva & Costa, 2018). One of the potential responses to the need of climate change mitigation is the nexus approach and ecological design which allows to advance urban resilience and sustainability (Childers et al., 2015).

Another challenge that the contemporary cities are facing is the increasing risk of extreme weather conditions, therefore one of the needs of public space design is the response to the flood adaptation purposes (Silva & Costa, 2018). This emerging tendency is further prompting new flood management paradigms that acknowledge the practice of integrating ecosystems and the natural water cycle (Silva & Costa, 2018).

Public spaces should additionally assure thermal comfort and provide a comfortable and healthy outdoor environment, bioclimatic design when at the same time reducing energy use and avoiding overheating (Roshan et al., 2019). Public open space in urban areas have a vital role to play under conditions of climate change (Wilson, Nicol, Nanayakkara, & Ueberjahn-Tritta, 2008). At the same time green infrastructure represents a tool to create more resilient and sustainable urban environments by greening open spaces in our cities. Green structures and greenery elements improve the urban microclimate and reduce noise, dustiness, the heat island effect and help to manage urban stormwater (Tóth et al., 2015). Studies on the complexity of the relationship between microclimate comfort in public open spaces and urban design appears as one of the crucial aspects which may ensure climate adaptive design (Haasnoot et al., 2020).

Decision makers need better insights about solutions to accelerate adaptation efforts (Haasnoot et al., 2020). The researchers task is therefore to demonstrate examples of adaptation being enabled and implemented, for example through technological advancements, starting collaborative, and bottom-up adaptation initiatives (Haasnoot et al., 2020). We should define clear principles of climate sensitive urban design (Haasnoot et al., 2020).

One of them is the need of providing adaptive capacity and delivering adaptation actions (Wilson et al., 2008). With such an approach retrofitting becomes more significant than creating new spaces (Djukic, Vukmirovic, & Stankovic, 2016). It results from the fact that urban life under conditions of climate change influence socio-economic aspects. Access and management of open space are likely to be of critical significance in delivering adaptation options, which are accessible to all and meet objectives of social justice (Wilson et al., 2008). It should be further link with the need of participatory planning and the methods social multi criteria evaluation to guiding the city's government to realize a new urban resilient development (Sturiale & Scuderi, 2019). Up to the point when communities will consider climate change adaptation to be essential (Santos Nouri & Costa, 2017).

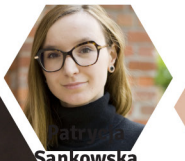
Neo-localism vs neo-globalization

How local solutions and giving more power to places and people counteracts globalisation? What are the benefits of neo-localism guided policy programmes? What role do we want for families and culture in the public spaces of tomorrow? How does the neoliberal market affect local public spaces?

Most of the cities nowadays are changing substantially due to the influence of globalization (KARA, 2019). The challenge of social cohesion appears in literature as one of the most crucial aspects of such processes which requires the response of the planning approach in our cities (Healy, Arunachalam, & Mizukami, 2016). It is related with the informational age, the global economy and a new captively oriented social policy. These elements are said to be bearing down on cities and neighborhoods to produce a new crisis of social cohesion (Kearns & Forrest, 2000). As so, the emerging challenge is the need of identify important factors in changing urban spaces within cities as a result of globalization to shape urban competitiveness (Hooman, Sepideh, Linda, & Mahshid, 2021).
Some authors argue that due to the trends resulting from the global processes urban planners should rethink the role public space and to define new approaches to urban design ensuring neighborhoods openness to multidimensional differences of the societies (Madanipour, 2019). This conclusions are defined as it was established that

MSRL 3.0 participants

INDIA
Rajendra Kumar



Sankowska

Julia Kurek

Sylwia Sitniewska

Januar Arif Kurniawan

Weronika Rodak

Natalia Prokopowicz

Grzegorz Banaszek

Ilirjana Haxhiaj

ISRAEL
Ronit Davidovich

Joanna Wirkus

Marta Stawska

Daria Szablińska

Gokulnath Vasudevan

Valeriia Dovhun

Bayraktar Selim

SINGAPORE
Karolina Wojnowska-Paterek

Weronika Pogorzelska

Weronika Werle

SINGAPORE
Swee Keng Lim

Katarzyna Klancko

Wiktoria Sińska

Aleksandra Rudnicka

Ifeoma Ukonze

Jeta Bejtullahu

Agata Fatma Abdelgader

QATAR
Sławomir Ledwoń

Natalia Szwajkowska

Joanna Jaczewska

Michał Deja

Aleksandra Roguszewska

Manar Abdelhameed

Popaszkiewicz

SWITZERLAND
Elisabeth Bepaire

Sandra Wojewska

Faez Ibrahim

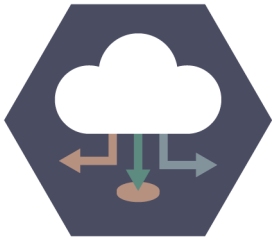
Arleta Szomborg

Marta Binerowska

globalization also includes the increased movement of people, products, ideas, images, lifestyles, policies and capital and that it affects cities through local and global dynamics which in turn causes macro-urban and micro-urban changes (KARA, 2019). The response to such challenges occur as a crucial one to find a response in public space design as societies face a new crisis of social cohesion. To to so we need define key dimensions of societal cohesion (Forrest & Kearns, 2001).

On the other hand, globalization can influence urban development with positive impacts. Some researchers emphasize that social identity mediates the positive effect of globalization on individual cooperation (Grimalda, Buchan, & Brewer, 2018). Surely however, the new place identity should be suitably created to face the needs of diverse groups of multicultural backgrounds and different expectations. The increasing importance of such an approach within urban regeneration processes is leading cities to be involved in constructing suitable images and symbols of their transformed areas to meet the new trends (Sepe & Pitt, 2017).

The lesson learnt so far shows that the new urban vitality and social cohesion provide multiple benefits in cities. Although what is emphasized is the need of carefully planned and developed built environment which ensure urban vitality and social cohesion as vibrant neighborhoods foster strong communities (Mouratidis & Poortinga, 2020). The way we approach public space design result with the residential satisfaction and urban identity as well as social support and personal competences (Carro, Valera, & Vidal, 2010). Despite the knowledge more often various societies perceive insecurity in the public space. To face the fact we need to define personal, social and environmental variables which could further help us to design more responsive build environment enabling social integration. As urban territories frequently face problems related to the lack of cohesion it remains a working fact for planning and urban design processes (Pinto & Remesar, 2015). Multilevel urban governance and participatory planning occurs as a potential of shaping social cohesion (Kearns & Forrest, 2000). Still however it is needed to provide insights for policy makers and professionals to apply and implement urban space transformation strategies for globalization and urban competitiveness (Hooman et al., 2021).



Big data

How is Big Data currently being used by planners? What can we achieve through its use when designing public spaces? What is the impact of large data sets that is constantly produces in the urban environment? Can public spaces be shaped in real time when at the same time urban data is produced by users? Can Big Data be used as a collective tool for public participation?

The world is changing and technology influences the development of cities in many areas. Big Data is more and more present and potentially it can be used to help in the planning of more sustainable human settlements (Kamrowska-Załuska, 2021). With rapidly developing new technologies and instruments based on Big Data, a large amount of information concerning social, economic and spatial data is being collected in smart cities including both the public spaces and urban dwellers, allowing more accurate analysis of the processes shaping contemporary urban environments (Jie & Yuning, 2018). With the possibilities resulting from the big data and digital tools, the range and precision of analysis of urban structures increases (Jie & Yuning, 2018). Big data bears great potentials

for providing enhanced insights and improving decision-makings, and so its effective application becomes a key factor for achieving success in the development of smart cities (Ma, Lam, & Leung, 2018).

Open access to large datasets allows for a broader understanding of phenomena that determine the development of cities and the way they influence urban ecosystems and their services as a direct contribution to human well-being, supporting the survival and quality of life of urban dwellers (Jie & Yuning, 2018). At the same time, with the increasing functional and virtual connectivity of urban space, numerous communities are adopting various smart and innovative solutions to strengthen social cohesion but also to respond to current challenges such as a need of the sustainability and resilience of cities (Kamrowska-Załuska, 2021).

Evidences of geo-located social activity find a place in urban studies. Georeferenced data from, e.g. social media can be applicable while mapping of public sentiment (Bertrand, Bialik, Virdee, Gros, & Bar-Yam, 2013), predicting of social deprivation (Quercia, Hare, & Cramer, 2014), modeling human and crowd activity patterns (Noulas, Scellato, Mascolo, & Pontil, 2011), examining land use (Frias-Martinez, Soto, Hohwald, & Frias-Martinez, 2012), depicting characters of an urban area (Cranshaw, Schwartz, Hong, & Sadeh, 2012), measuring national mood fluctuations (Durahim & Coşkun, 2015) or life satisfaction (Yang & Srinivasan, 2016) etc.

Big data proves it can be a response to currently most urgent challenges cities face (Jianxiang Huang, Obracht-Prondzynska, Kamrowska-Zaluska, Sun, & Li, 2021). Recent years shows an urgent need to mitigate climate changes in urbanized areas (Danah & Crawford, 2012). Climate change imposes critical risks for global cities. Heat islands, flooding quality of air, pollution are among the top challenges to health and wellbeing of residents in urban regions (Meerow, Newell, & Stults, 2016). Research on shaping urban resilience have made progress in recent years, although successful applications in climate risk mitigation are rare (J Huang, Zhou, Zhuo, Xu, & Jiang, 2016). Several projects evidencing social behaviours in terms of approaching resilient urban development can be found. Models have been designed to collect census data on the quality of urban life and to assess how urban dwellers respond to climate changes or solutions aiming to mitigate climate changes. At the same time there are still limited studies which introduce models to measure different aspects of resilience using Big Data in a holistic manner, taking into consideration its various aspects.

Sponge city approach was found as one of the aims of resilient urban fabric. Wang, Loo, Zhen, & Xi (2020)by examining the spatial-temporal patterns of public responses towards urban flooding in Nanjing, introduce an approach based on the fusion of social media data, land use data and other information which can be useful for planning practice. As a sustainable green space in cities can potentially affect human well-being, social cohesion and interaction. Therefore, sensing urban microclimate to encourage implementation of solutions diminishing heat islands effects (Evola et al., 2020) is one of needed solutions. The quality of life is influenced by the air pollution. Yan et al. (2019) based on Weibo data (daily records of all the monitored pollutants for 251 cities) measured the impact of air pollution on urban activity.

Despite the variety of areas of application of big data, a large part of the literature refers critically to them as tools supporting spatial planning (Kitchin, 2013). However, the

potential of big data is still not embedded in urban policies and its role in the process of shaping vital public spaces is not fully recognized (Kamrowska-Zaluska & Obracht-Prondzyńska, 2018).

3. Introducing the Public Space Design Manual

On the bases of the core theme and suggested within a call for mentors and participants topics, each team decided on the main focus of their research. We left a freedom to the MSRL members as they were supported by the experienced mentors and promising PhD students. The final scope of research has been decided in relation to the work, experience and interests of the whole group. Based on their work, literature review they proposed different methodologies – experimental, basic research, prototyping, literature review and case study evaluation. Each work resulted with different outcomes – of both theoretical and practical nature. However, the main outcome are the recommendations for public space planning and design approach. They are briefly presented in this book divided into 5 different groups:

The Public Space as a catalyst of `togetherness` in the global city

Globalism often comes in pair together with loneliness. Why do we so often forget the importance of relationships while designing city spaces? The team calls for "togetherness". which can only be successful once, in the global world, we – the planners – focus on the localism. In their research, they seek for answers what makes the public spaces liveable? And further, what enhances the process of building an inclusive community participating in urban activates.

#globalcity #inclusivepublicspaces #liveablepublicspace # togetherness

Designing public space of tomorrow in context of the climate change

Adaptability for climate changes is one of the biggest challenges for the cities. As planners, we ask ourselves what kind of environmental issues resulting from the current processes, influence the development of the public space? The group tackle the problem of preparing effective policies and evidence-based solutions for environmentally friendly planning. Moreover, they aim to provide recommendations for communicating and engaging societies in shaping the complex matter of climate-adaptive public spaces.

#resilitentcity #adaptablecity #climatechanges #evidencebasedplanning
#climateadaptivepublicspaces

ActiCity – how to make people move

The WHO reports state that the levels of physical inactivity are rising in many countries. This has major implications on the general health of people worldwide and for the prevention of common diseases. At the same time, we, the planners, know the urban environment can encourage or discourage the inhabitants to be active. How to formulate recommendations for designing urban strategies enhancing the activeness of public spaces? The team aims to find solutions for cities to get people outside, with special attention to non-traditional and neglected types of movement in urban planning.

#walkablecity #activecity #activeresidents #activepublicspaces #liveablepublicspace

A regenerative approach in the design of public spaces - the Design that Enables Zero Plastic Waste

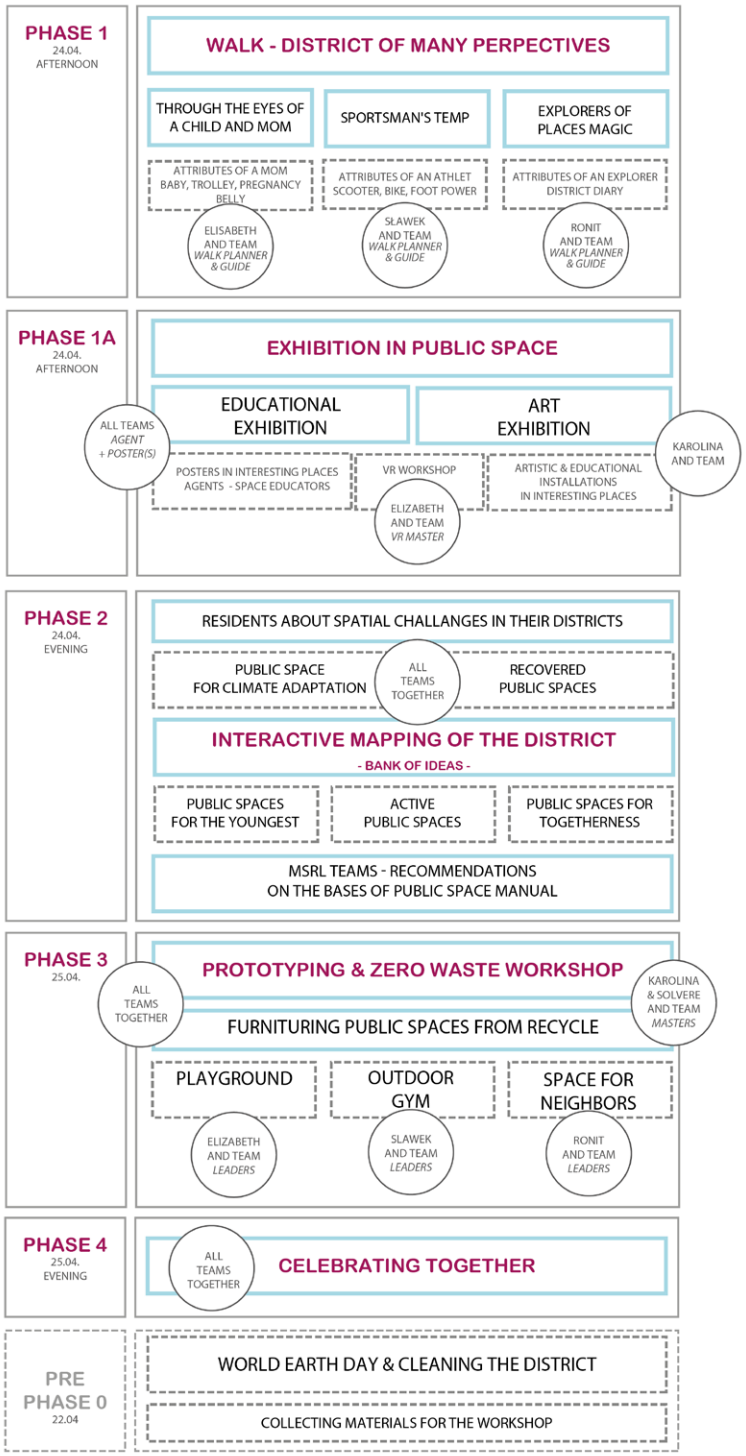
As the urban challenges are growing rapidly there is a need to shift the urban paradigm from the sustainable to regenerative approach in the city planning processes. We are running out of world resources, therefore, achieving the positive balance while implementing urban solutions should be one of our aims. For this reason, the group challenge themselves to define the potential of reuse of plastic waste in public space design. How can art in public spaces contribute to educating people? They focus on finding an answer for how the social awareness of environmental issues can be improved by the design of public spaces?

#regenerativeapproach #reuseofplastic #regenerativepublicspaces
#wastemanagment

Children in public spaces - defining the design features of public spaces to be children 0-5 and they caretakers friendly

Urban discussion tackle more and more often the issue of designing accessible and inclusive public spaces. More importantly, they should be inviting for all city dwellers to participate in urban activities. However, we can still find the lack of kid's friendly infrastructure in old and new public spaces. So why not to solve them? By opening the online discussion, the group aims to formulate the design recommendations for shaping and improving the public spaces so they are more accessible and friendly for children at the age of 0-5 and they caretakers.

#publicspaceinclusivness #publicspacesforall #theyoungestresidents
#urbaninfrastructureandkids #urbankids #urbancaretakers



4. Testing the results in planning practice

Unfortunately the Covid-19 pandemic found us in the middle of the third edition and disturbed our work. As so, we never had the opportunity to summarize the work and test the results in urban design practice. The process was however carefully planned; therefore we intrude it in this publication.
While designing the recommendations which are presented in this book the research teams were asked to think how we can test the MSRL outcomes in the build environment. By joining efforts all the participants contributed to the idea of the workshop for residents and stakeholders which was supposed to take place in the district Nowy Port in Gdańsk, Poland. It offered a participatory approach and prototyping with the element of action research. The event was thought as a part of urban regeneration processes taking place in the district and as a part of InterReg UrbCulturalPlanning project.

4.1. Prototyping concept 1

While teams were working on recommendations for our public space manual, the organizing team was trying to coordinate the workshop in April 2020. The workshop concept was created on the bases of the contributions and ideas from each MSRL team.

During the process we participated in two workshops with residents in the district Nowy Port. Thanks to the work of our teams, we were able to present our proposals and discuss them with residents to make sure we can deliver a workshop concept which respond to the needs of the local community.

As the topics of MSRL program were diverse it was a challenge to think of one coherent concept of the workshop as we additionally face the ideas with the local needs. To make the explanation of the workshop easier the description correspond with the scheme presenting step by step what was planned.

PHASE1
URBAN WALKS around the district. The workshop participants could decide which walk to choose. They were organised to discover the district, however each MSRL team planned it differently to emphasize different challenges of public space design. Each walk was specified by different attributes depend on the team.

PHASE1A
OPEN SPACE EXHIBITION. Part of the workshop was an exhibition in public space with spots which could be visited during the walk. One of these stops was planned as an art installation of our mentor Karolina Paterek; second one was the VR workshop

organised by “childcare” team. Each team was to prepare at least one educational poster about the topic related with their theme. We planned to spread them around the district and during the walk our agents were in charge of saying few words on our work to the visitors.

PHASE 2
MAPPING THE LOCAL CHALLANGES. After the walk all the participants were invited to sit all together around the map, and we planned to ask residents to point the challenges of the district. On the bases of our recommendations from this book we were supposed to share ideas for solutions.

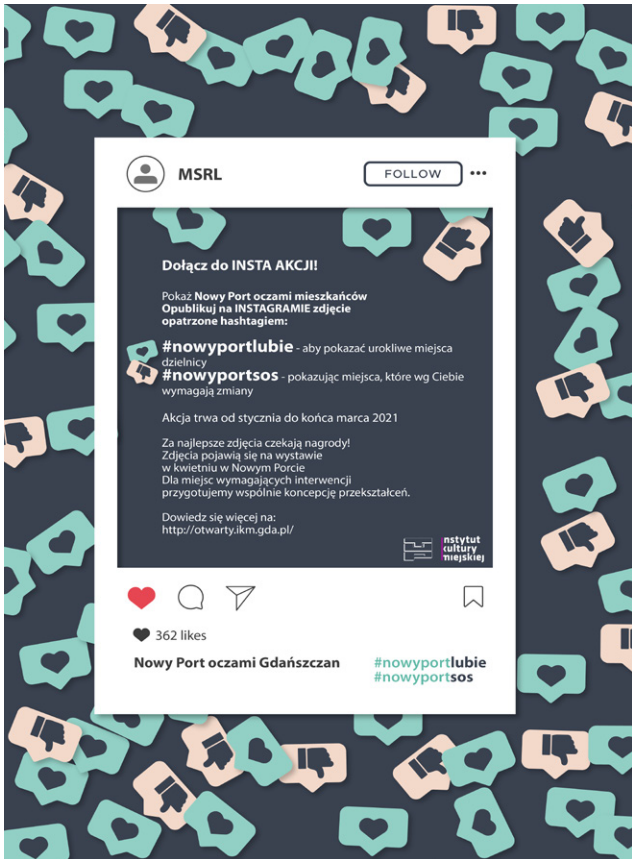
PHASE 3
PROTYPING WORKSHOP WITH STAKEHOLDERS. The second day was dedicated to working all together inspired by the work of the “regenerative” and to build new public spaces while reusing plastic. The aim was to build mock-ups for public spaces from recycle.

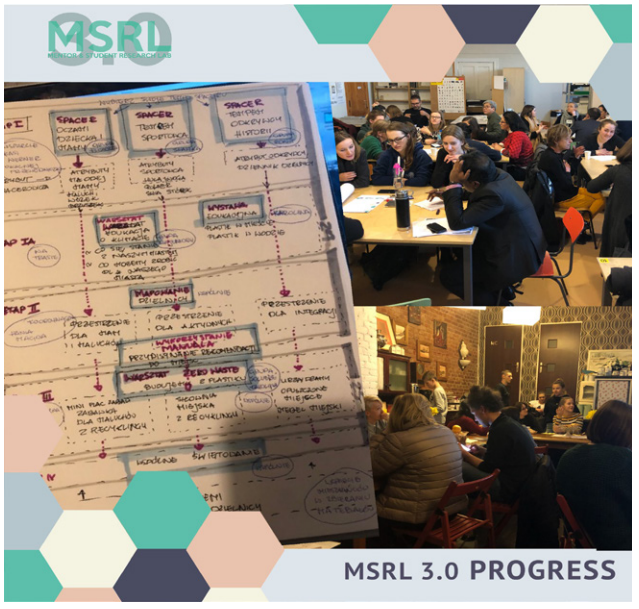
4.2. Prototyping concept 2

In the meantime, we also planned to collect knowledge on the district to share it with the participants who are not local one. We planned to engage residents via social media to show us the district with their own eyes. The idea was to create a hashtag and to encourage residents to publish online their thoughts about different places found in the district. At the end they would be awarded for the contribution, we however could obtain the pictures for the further evaluation and preparations for the workshop.

Unluckily, despite our enthusiasm of implementing the results of our work, due to the pandemic, the testing phase remained as a theoretical framework only. However, we strongly believe the recommendations found in this book will help different communities to shape better public space.

We encourage you to read the book carefully and test the recommendations in your neighborhoods!





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THE KEY PRINCIPLES FOR TOGETHERNESS IN THE PUBLIC SPACES - A WIKI PLANNING TOOLKIT

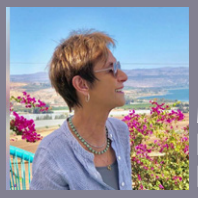
Today in the global city, the place and space where we live play an essential role when it comes to togetherness. Recently a lot of studies and research are taking place in tackling the 'urban loneliness,' named as the epidemic of the new urbanism. The study focuses on exploring how can architecture and planning of public space influence the 'loneliness rate.' The research idea was to focus on the optimistic side of the issue and define the parameters of planning the public space which can 'make the difference' and raise the sense of togetherness.

The public spaces we studied indicates that it is crucial to plan and design urban regions and public space with reference and sensitivity to the variables that can increase the participation rate in public events, casual encounters, creativity, entrepreneurship, and the love and care for the living environment.

Today, after the outbreak of the Corona crisis, the issue is more relevant than ever and questions the role of the house as the key to public space - whether through a window, a balcony, or via online platforms, that opened the bedrooms for all to see. - How do we now plan an affinity between private space and public space and will WELLBEING's design of all generations, and especially their relationship, be affected?

In this section of the guide, we introduce some issues of attention when designing public space. In each topic, we briefly present the findings of the literature and research, the main variables for reference, and recommendations for reference when designing the public space.

Our guide is a sort of Wikipedia Guide - Every user is welcome to add topics, research, variables, and recommendations. After all, it is all about the wellbeing of people.



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Her research aim is to study and examine the urban fabric, with a closer analysis at how urbanism can contribute to make sustainable, attractive and integral urban spaces. The purpose is to clearly define and expand the urban design as a scientific discipline in understanding the complexity of urban patterns, shifting the urban identity and the development of tools for professional practice, thus by studying two design strategies: the application of design patterns and the use of urban scenarios.

1. NARRATIONS OF PUBLIC SPACES

1.1.1. Skanderbeg Square in Tirana during Summer

1.1.2. 'DON'T TOUCH VALBONA'-Art installation to raise awareness for the HPP in Valbona Valley, Skanderbeg square, Tirana

Urban Scenarios are narrations of public space possibilities, the alternative realities, and practices that lead to an understanding of the city and urban life. The process of changing and adapting the same space according to the needs of people and community is the emphasis that expresses the dynamics of urban flow and social cohesion. Different narrations of the space provide us an insight into the relations with the public places and the lived city. Urban scenarios give a wide range of understanding of the social production of urban space. The creation of the place adaptable to daily life/seasonality or the alternatives of the spaces whenever a concert or manifestations takes place to feature the possibility of the social interaction as everybody expects something to happen, whether it be physical or socio-cultural activity.

Example

The three photos displayed are of main square in Tirana. The recent regeneration of Skanderbeg square has made that the space is dedicated to the pedestrians and therefore shifting the car flow. Despite the fact that the project has received criticism about not respecting the historic urban layout, the usage of area by getting people together has been succesful. The intevention in the stone paving and the urban greenery, this public space has a wide range of activities. The conversion of a space differs from day to night, in different festivities/ concerts, and even serves as a praying space. Renovation of Skanderbeg Square received First Prize European for Urban Public Spaces.

Guidelines:

- Design places that promote different activities for all seasons.
- The participatory process is the primary tool for designing inclusive places.
- A public place has no age limitations, make sure to include activities for all target group age.
- Art installations and urban furniture have an important role in designing urban scenarios.

Toolkit process:

1.1.3. Skanderbeg Square in Tirana during Christmas

1.1.4. Placemaking that generates social gatherings.

2. DIGITAL TOGETHERNESS

Up to date we are the most digitally- connected generation, and yet the one that is increasingly lonely and isolated in real world. Digitalization has the potential to create meaningful connection not only virtually of people but also offer the people to maintain relationships and connection by experiencing the physical space. Online communities and virtual groups act as a network for socialisation and interaction, thus by becoming storage and reflections of pictures, texts and sounds received. Online and virtual spaces have faded the common notions of public and private, they provide connection of the urban patterns, make visible the shared social and cultural identities of the ones that live and consume the public space. A singular notification, but a shared experience toward which individuals can build upon using the public spaces.

1.2.1. Pokemon Go App

Examples :

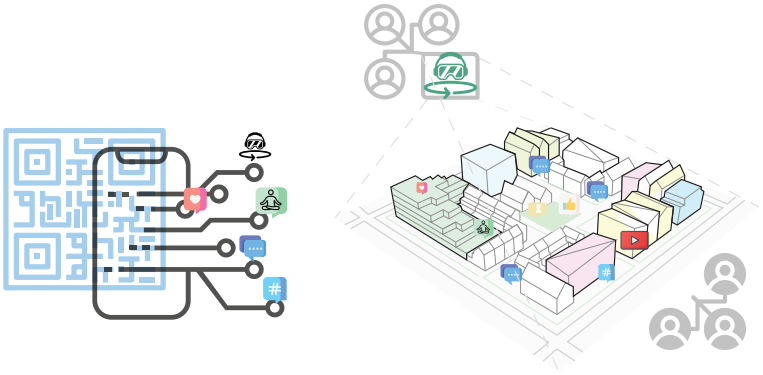
'Keeping in touch' with the physical space is the relationship that has been broken for many young people, who rather stay online in their device than interact. Nowadays, they are offering many apps to help those that have lost the touch with the real world. How can we make it cool to disconnect from your phone? VR Games such as Pokemon Go had everyone in the public space, streets and parks. Also finding comon interest groups is another support that comes from online community. such as outdoor sports or walking the dog. Snapchat offers heat maps and geo tag for activities happening in your vicinity in the public space/cities is another opportunity of technology to help you stay in touch with the community and not only.

1.2.2. Outdoor yoga App

Guidelines :

- Provide simple games in public and promote in the social groups.
- Develop new apps or offer online support group for different group of people: e.g new comers, new neighbours, new parents and not to forget the grandparents.
- Create a social currency to award those that use public space and interact with others.
- Sports, yoga, cooking and walk the dog are some of the examples that can be used as the common interest to bring people together.

Toolkit process:



1.2.4. PromotingPublic Spaces through Apps and Virtual Groups, as an actor in getting people together

1.2.3. Walk the dog Apps

3. SELF SUFFICIENT NEIGHBOURHOODS

1.3.1. Self sufficient neighbourhood Prototype

3.2. Buiksloterham, Amsterdam

District communities of the future are the productive neighbourhoods. A design principle that enables the urban transition towards locally productive and globally connected cities by empowering the togetherness in public spaces. Giving priority to people and culture over technology, so that the city can become a living and resilient ecosystem. Autonomous vehicles, digital tools, artificial intelligence and robotic machines must be placed at the service of the people's well-being and expectations. Symbiosis of living and working space could be a way to improve the process of hybridisation between local and global economies. Introducing the production within the city, we therefore enhance the sense of togetherness and not only, but create new opportunities for more recycling, social activivities and urbanity.

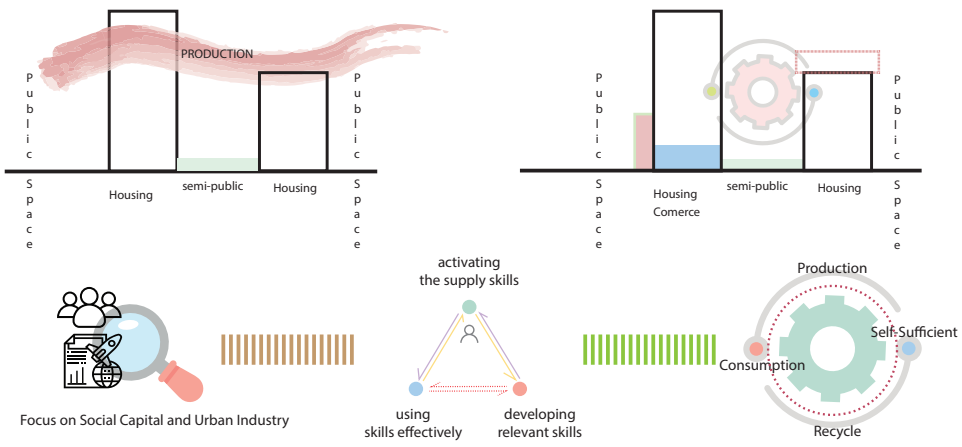
Examples:

Buiksloterham is a Post-industrial neighbourhood in Amsterdam. The new regeneration processes that are being undertaken in the distress areas or port-industrial neighbourhoods have started to focus on shifting to self-sufficient neighbourhoods. Examples of these neighbourhoods can be found in different metropolitans and have resultes successful in community involvement. Successful neighbourhoods such as Buiksloterham in Amsterdam, or other cities such as Barcelona, Zurich.

Guidelines:

- Retrofit of buildings/ spaces by creating a toolkit for people who might want to repurpose the space and turn it into Makerspaces, Community Hubs and Urban Gardens
- Attractive environment with recreational and educational activity spaces.
- Sustainable mobility infrastructure planning that offers flexibility and maximum use.
- Empower entrepreneurship- Circular economy business incubator.
- Diverse and inclusive neighbourhood, affordable costs of living for all residents,

Toolkit process:



1.3.3. Self Sufficient neighbourhoods by introducing production in the public spaces.

4. INCLUSIVE COMMUNITIES

The sense of belonging is one of the basic human needs. Building an inclusive community it means to create a community that is inviting and and accepting the background diversity. Different cultures use space in different ways and are not always understood by others. Mapping spaces where it happens the collision of different groups of people and offering facilities or adapting the space to the needs of different groups of interest we tackle the loneliness and create inclusive communities. So normally it raises the question: 'How can we ensure spaces for all cultures and backgrounds and at the same time to bring these people together? '.
The idea is to create opportunities and make the public spaces flexible to meet the requirements and generate social cohesion.

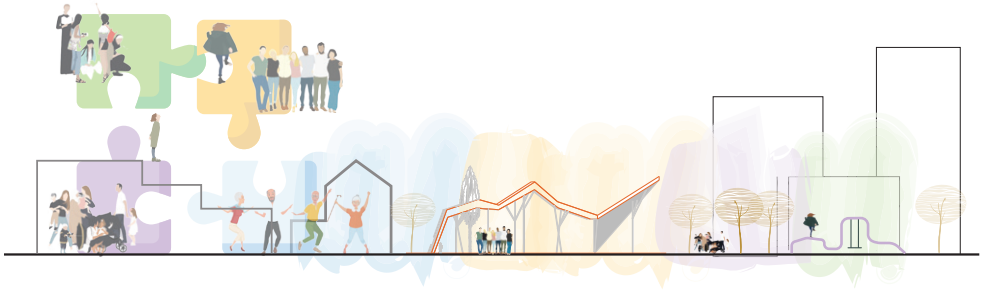
1.4.1. Community Integration dinner with refugees in Germany

Examples.
In recent years, one of the present issues continues to be the inclusion of the refugees as a part of the community. The first barrier of the refugees is the communication and also to be accepted by the host community. The challenge of the inclusion is to make them part of it, as the refugees are the driving factor of the inclusive community by spreading their concept to share intercultural coexistence. When it comes to inclusive communities, the target isn't only the socio-cultural background, but also the age generation. A conscious public space designed with emphasis in designing and strengthening the relations of those involved in the place. The objective designed public spaces is to create equal living conditions and social participation of all social groups.

1.4.2. Urban games for different group target

Guidelines:
- Makes places flexible to the needs for groups with different socio-cultural background.
- Design spaces that offer activities and 'accidental' encounters for people, such as community kitchens, playgrounds, culture centers, etc
- Create hyperlocal neighbourhood by building social capital and empowering the community.
- Turn corridors into streets and enable longer time spent in the public space and interacting with their neighbours.

Toolkit process:



1.4.4. Creating spaces that promote cultural exchange and protects the rights of everyone.

1.4.3. Inclusive playground for kids with special needs, Cambridge

5. COWORKING SPACES

1.5.1. Google Office, Dublin

Workplace lounges and the feeling of togetherness is essential and motivating in the workplaces as more time is spent at work now than ever. Studies have shown that we're more productive and happier when we're working with friends. But the design of large open plan office has made the interaction harder. Longer commuting hours as well the home- office have impacted in the feeling of belonging and togetherness. The idea behind some successful place is that they have arranged the so-caled urban lounges, where you not only have the workspace but also recreational activities or gathering of teams for a discussion in a more relaxed environment. Workplaces that promote togetherness you'll be able to overcome any obstacle because of the good teamwork and communication

Examples:

Most-known companies that have made a change in the work space are the Google Campuses. Working and enjoying the time while at work but not forgetting the recreational activities offered in the nowadays offices. Other examples that promote togetherness are Co-Working Spaces. The example of Norrsken House, is a coworking place where currently are 117 companies using this space based on the pillar of social inclusion, support and finance, and wellbeing. Norrske House offers playroom for families, media studios, meditation room, are pet friendly offices, etc.

1.5.2. The digital Innovation House, Stockholm

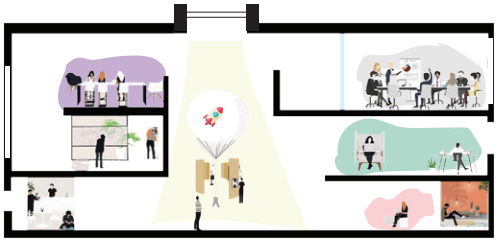
Guidelines:

- Flexible design of the the work spaces, distancing for rather a more fluent and synergic work environment.
- Create a feeling of comfort and safety- Design work environmnet that look/ feel like home.
- Offer recreational spaces- open for ousiders too: such as coffe shops, reading area.
- Offer safe and private spaces for individuals.

Toolkit process:

1.5.3. Norrsken House, Stockholm

1.5.4. Design of Coworking space to tackle lonel



Section of a coworking building space

6. WIDE APART, YET TOGETHER IN TIMES OF PANDEMIA

The global outbreak of Covid-19 has put further emphasis on the hypothesis that epidemic diseases shape cities. In the global city the public space is the representation of the shared values of society, using place and space at a specific time of transition to be together has had impacts- both negative and positive- in how the planning of cities should be and how people interact with one another during crisis times. Looking back at history, we see the changes that have happened within the urban environment and also the Covid-19 is not any change to any of other epidemic diseases in last centuries.

From airports and train stations to famous streets, cafes, beaches, attraction sites have changed, the absence of human interaction is the indicator that City life has been disrupted. The mechanism of the relationship of public space - city life has been interrupted. Times Square, Duomo in Milan, the stairs of Opera in Sydney, Vatican City, mosques and temples, places that are visited by thousands have been emptied due to the travel restriction and isolation measures. The most famous public spaces around the globe have turned into ghost places without the presence of social aspect.

Ironically, the social distancing has brought people together more than ever. The community, the neighbourhood has bonded and built a stronger sense of society as a collective togetherness from the need of people to link with other others who are unlike themselves, differing with the segregation of social groups or individuals. People have become aware that they need the human contact, during this time of crisis we have seen how people have come together by turning their balconies, windows, roofs into the public spaces of showing the sense of togetherness and the urban resilience. Whether this will change in the nature of urban city life or not is to been seen, but as of now the question is: How do we plan and reshape an affinity of the private and public space and whether the wellbeing, especially the relationship of all generations be affected?

The technology has played an important role by providing a digital space during these times from sharing information, bringing virtual tours of famous sites or museums, attending concerts as well enabling the social interaction. The virtual space has become the connection to the world. During the isolation the use of internet is stronger than ever, from attending classes, work meetings, keeping in touch with family and friends, the internet has been the only tool to bring people together in the digital space.

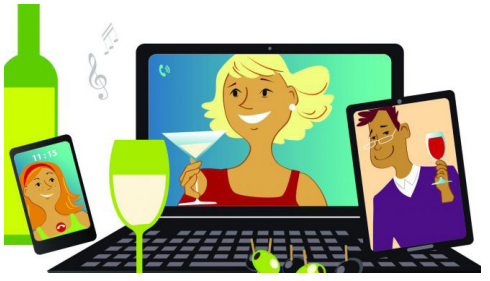
In the global city, a strong efficient digital infrastructure has proven to be substantial in providing means for not only people to continue their activities, but also governments to keep and implement strategies.

While it's still early to draw the conclusions from this crisis, what we get till now is that densification was and continues to be the main problem a city can face. The balcony proved to not only add higher price of the real estate, but it serves as the node between private and public space that enables people to be part of their community.

As urban designer and planners try to answer the question to how the pandemic crisis will change the relationship of people with the public space, the post pandemic urban environment is already present. Cities with the big informal infrastructure will get lessons in regarding the urban knowledge and will need to rethink on how to build and make variables of urban patterns to tackle the consequences of this crisis.

1.6.1. Applauding for Health workers, Milan

1.6.2. Virtual Tours, British Museum



1.6.3. Zoom-Aperitivo

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DESIGNING PUBLIC SPACES TO ENABLE ALL 0-5 YEAR CHILDREN FLOURISH

The 'Public Spaces of Tomorrow' are places that enable all young children 0-5 years to flourish! Places that support a healthy child development. The early years are the foundation for lifelong physical and mental health and wellbeing. We need the Public Spaces of Tomorrow, today!

Designing and planning public space for our babies and toddlers also means designing for the wellbeing of their caregivers, parents, grandparents, siblings, aunts, uncles, nannies and also pregnant women. Engaging these caregivers in the design process. Public Spaces for tomorrow's generation are comfortable and accessible, safe and stimulating, facilitate connections with each other and nature, benefitting all in everyday life today. We are all responsible and local authorities, urban planners, architects, park managers, all people engaged in city planning and functioning have their role to play.

An imperative in its own right, it is even more critical to raise the topic to the top of the agenda and make the Public Spaces of Tomorrow today's discussion. While children are not the face of the Covid-pandemic, they risk being among its biggest victims.

Our recommendations show how to plan and design public spaces (not only playgrounds!) for under 5s and caregivers, spanning everyday journeys to bringing nature closer and incorporating an educational layer.

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1. DESIGN PLAY SPACES FOR ALL CHILDREN

Elisabeth Belpaire
Marta Binerowska

Architecture is a creation that should be for everyone, not only for an able-bodied adult but also a disabled person, including disabled children. Play is crucial for children their full development: physical, mental and emotional. So it is important that all children have access to play spaces. An increasing number of children have to deal with various problems including mobility impairment, sight impairment, mental impairment (Tota, 2019) or are living in extreme poverty and are exclusion. Not every child can run or climb, also not every child can hold out in noisy places: No matter the type of impairment or disability, all of them want to have fun!

Children in wheelchairs need wide ramps (2.5), elevated sandboxes (2.2) and wide swings (2.3). It is also important to consider the ground surface or terrain on which the playground is located. For example, placing specially designed devices for children in wheelchairs in a sandy area will not make it accessible to them. (2.5)

Also for children with a visual disability, play is a basic factor that stimulates development. There are two types of favorite activities of blind and visually impaired children: playing with sounds (e.g. repeating different sounds or creating them by rubbing, pressing, striking (2.6, 2.4)) and sensory playing (e.g. touching objects of different textures or shapes (2.1)). These games help children train their orientations around their body as well as the space surrounding them, and develop their perceptiveness, imagination and thinking.

For the kids with autism or with concentration problems a path around the playground could be helpful. They can walk around the entire playground and see what is happening. They can choose quiet places, they will feel more comfortable when they can just observe the situation. What is more, children with autism could easily get overwhelmed. For those children a quiet place should be provided where they can calm down and be alone for a while (2.7).

2.1.1 Westchester Recreation Center - Los Angeles, California

2.1.2 Sandpit for kids on wheelchairs

2.1.5 Playground at Brooklyn - Pocatello, Idaho

2.1.4 Millstone Creek Park - Westerville, Ohio

2.1.3 Millstone Creek Park - Westerville, Ohio

2.1.6 Fairmount Carousel Playground - Riverside, Kalifornia

Disabilities are not the only reason for limited access of children to play spaces. Poverty can be another factor that contributes to this situation. For example many poor neighborhoods have no play area or equipment. In this case recycling materials such as plastic bottles could be helpful. With a little imagination, it is possible to create a safe place for children where they can play and learn (2.8)! In addition, sometimes poverty causes children to be excluded from society. Children from slums in Bangladesh are not allowed into public playgrounds, so they spend most of their time on the streets (2.9, 2.11), which is dangerous and not conducive to their development. It is important to include also these children, to create enabling conditions for their development as this is the case for other children. For example to build separate playgrounds (separate safe spaces) for them, like the "Leedo street children"organization (2.10).

During the design process of new public play it is important to create simple but accessible forms. An accessible space is an area that is designed with understanding and awareness of the diversity of users, with the knowledge that each of them may experience differently and have different needs. They should also be a place that provides opportunities for development and encourages interaction and integration with other peers regardless of their level of mobility. Children with health problems need to have adequate conditions for play, but their psychological needs do not differ from those of other children - all of them just want to have fun!

2.1.8 Playground at Kierka, Uganda

2.1.10 Peace home play space built for privileged street kids

2.1.7 Melis Stokepark, Haga, Netherlands

2.1.9 Street children in Bangladesh

2.1.11 Street child in Bangladesh

2. SIMPLIFY EVERYDAY JOURNEYS

Elisabeth Belpaire
Marta Popaszkiewicz

Parents or other caretakers every day start a journey with a child or children. The destinations might be diverse. Part of them are for necessary activities - go to kindergarten, shop, health care to kindergarten, part are for leisure - go to playground, park or just go for a walk. While planning public space, it has to be remembered that not only playgrounds or parks, but every path, pavement, bus stop are also public spaces which should be designed having children's and their caretakers' needs in mind.

City authorities, planners, designers should imagine how young children and their caretakers or pregnant women feel. They have to find answers for several questions. At one hand what type of barriers they face, at the other what makes their everyday journey more safe, comfortable and pleasant. Moreover they have to remember that the journey starts at the front door. That is the reason why everyday journeys mostly show the condition of the closest neighbourhood - elevators, staircases, doors, pavements. This recommendation shows everyday problems and solutions for parents with children.

First, a pregnant woman's heart works harder than a normal person's heart. That is the reason why they feel dizzy when they stand even for a few minutes - in the public transport, queue etc. Solution? TfL (Transport for London) company gives pregnant women signs "I am pregnant!". Thanks to these signs other commuters would move over and give a seat for them or let them pass the queue. Moreover - locating places to sit along the pathways - benches, ledges etc.

Second, caretakers with children in strollers face similar difficulties as people in wheelchairs. They both pay attention to the type of the sidewalks. They struggle with difficulties caused by high curbs or incorrectly parked cars, They are even stopped by barriers such as stairs, underpasses or pedestrian bridges - which often shut out further journeys. Not changing levels of pathways and planning as many crossings at ground level as possible is the best option. Make these crossings short through adapted street design. Moreover often it is almost impossible to commute in rush hours - try to make a dedicated space for strollers and wheelchairs in means of public transport.

"I was pregnant during the hot summer. Each walk was like running a marathon for me. I noticed even the smallest uphill in my neighbourhood and often needed a place to rest for a moment."
Marta, mom of Ania (2) and Lucja (7 m.).

"Passing through the city centre of Warsaw (Poland) with the stroller was like an underground mystery - unintuitive way through underpasses, lack of signposts showing directions or locations of elevators. Finally found elevators turned to be dirty and smelly."
Ewa, mom of Witek (4) and Wanda (6 m.).

2.2.1 Belpaire E., Lausanne, 2017

"There is a lack of separation between a street and a sidewalk - f.e. greenery - to walk safely with kids." Asia, mom of Kinga (5) and Janek (1).

Third, for many parents safety is the key factor of successful public space for children 0-5. Based on everyday journeys of a few respondents, a key factor is safety along streets. Fencing or green belt between a street and a pavement is not the only option to make the space safer. Safety might be an effect of introduced policies, regulations etc. Try to work on different levels and from various perspectives. For example, changing the traffic regulations might be useful - changing a "normal street" into a woonerf.

"The most important things for me are (among others): a bench for parents, tables next to benches to make some food (not on knees),. It is good when the toilet is near." Sylwia, mom of Iga (3).

Fourth, caretakers also have their needs - sit down, go to the toilet or just feel comfortable in the public space. Sometimes they meet other parents and go together for a walk so they need sidewalks wide enough to allow two strollers side-by-side (3.1). Try to remember also about their needs.

Other ideas simplifying everyday journeys:

- drinking fountains,
- bicycle and stroller pumps,
- stairs with comfortable buggy strips (3.2),
- designing zebra crossing rather than underpasses,
- separating streets and sidewalks,
- changing streets into woonerfs,
- shadow canopies,
- and just kindness.

2.2.2 Belpaire E., Stockholm, 2017

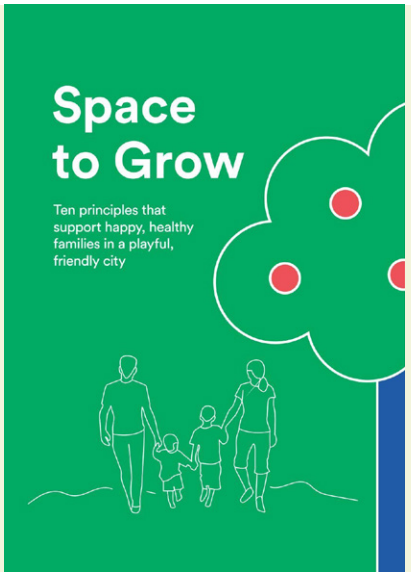
2.2.3 Belpaire E., Hanoi, 2017

3. DESIGN TOGETHER

Elisabeth Belpaire
Marta Popaszkiewicz

If you plan, design or create public space, try to involve into the design process all relevant stakeholders. Thinking of public space as a great place for young children, this means inviting their parents and other caretakers into the design process. Include pregnant women as well. All of this to make sure the design meets the needs of those it is serving.

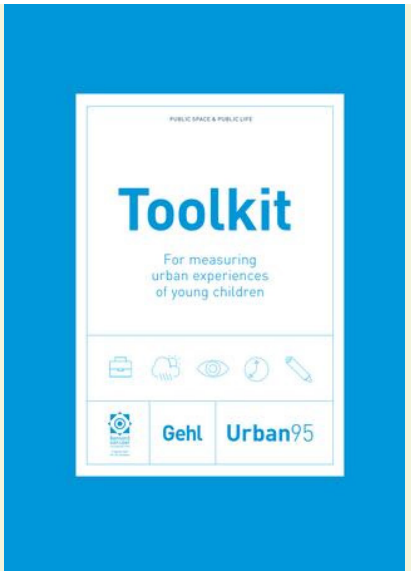
There is a full spectrum of levels of participation - from just informing through co-design to delegating power to citizens (Arnstein, 1969). Forms of participation also might be diverse. Below you can find many methods of common work divided into sections: analysis, design. But first of all, it is good to start with getting acquainted with basic principles - e.g. using Space to Grow, ten principles that support happy, healthy, families in a playful, friendly city (published by Gehl Architects and Bernard van Leer Foundation). (2.3.2)



2.3.1 Space to grow by Gehl Architects shows basic principles for playful healthy city

Methods which might be used during analysis stage (useful both before and after designing stage):
- interviews,
- informal discussions,
- mapping neighbourhood thanks to kids' drawings, Humara Bachpan, India,
- measure - using Toolkit for measuring urban experiences of young children, elaborated by Bernard van Leer, Urban 95, Gehl (e.g. counting people or urban 95 quality criteria), (4.2),
- mapping - empathy tools - getting into pregnant women's, young kids' and their caretakers' skin, e.g. taking a walk pushing a stroller with the bag of rice inside, using pregnancy simulator, VR.

The best method for co-designing is tactical urbanism (Lydon, Garcia, 2015). This concept includes low cost and bottom-up activities which transform spaces for a short period of time (one day or one season) and are often the beginning for great public spaces. Non-governmental organisation Project for Public Spaces which the projects LQS - Lighter, Quicker, Cheaper - shows that this kind of change is possible all over the world (www.pps.org/).



2.3.2 Gehl Architects and Bernard van Leer Foundation have prepared simple Toolkit for analysing public spaces for children

Ideas for collective changing public space and its facilities in the spirit of tactical urbanism:
- organising an event - e.g. picnic,
- painting (e.g. murals on the walls, pavements),
- building (e.g. play structures),
- planting,
- organising Park(ing) day (one day installation on parking spot),
- and much more!

2.3.3 Mix & Match published by Bernard van Leer Foundation

You can find many great ideas for easy changes of public spaces in numerous publications. Among other things, it is worth mentioning books such as Mix & Match - tools to design urban play (published by Bernard van Leer Foundation). (4.3)

Not only young children, their caretakers and pregnant women are worth inviting. Remember about other stakeholders - city authorities, local entrepreneurs, NGOs, activists, artists etc. An example - Child priority zone - pilot from Bogota Urban 95 programme shows that cooperation between various actors can bring measurable benefits. (4.4)

2.3.4 Child priority zone, Bogota

4. MAKE SAFE BUT INSPIRING PUBLIC SPACES

Elisabeth Belpaire
Anna Rubczak

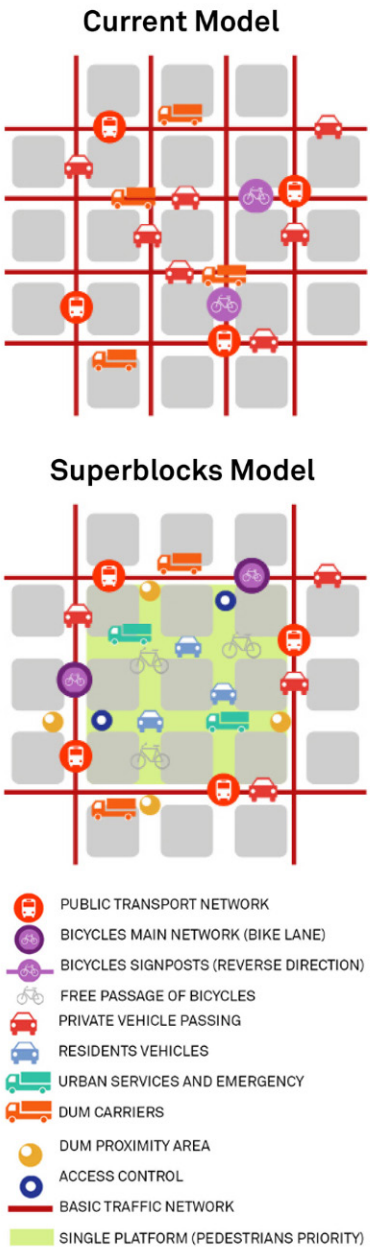
Public spaces like neighbourhood streets are favorite place where children are playing. Crossing streets and learning traffic rules is part of the education of young children. Streets as an integral part of the urban environment where children grow up, has its significant role in creating childhood memories, its subjective perception of street. In the case of children 0-5 it is interesting how the street layer can be stimulating for social and educational development. Streets are generally not safe places for children 0-5 but it is possible to re-design traffic rules and pavements. Try to answer the question: why are streets public spaces with so much potential for child-friendly transformations? On a global scale streets represent around three quarters of a city's public space. The social nature of this space is associated with the nature of the urban pattern and the transport mode (shape of streets, nodes, visual accessibility). That is why it is worth considering transformation of streets to safe, but also stimulating and inspiring public spaces.

Barcelona's Superblocks - streets as safe public space

In a residential environment a car is a functional element. Streets should be a safe public space for a healthy child development. The concept of Barcelona Superblock explain rules of creation spaces that improve the quality of life in densely populated cities.The Superblock in Barcelona is a new model of mobility that restructures the typical urban road network. Its implementation provides solutions to the main problems of urban mobility and improves both the availability and quality of the public space for pedestrian traffic. Modification to the basic road network and the establishment of differentiated routes for each mode of transport, were fundamental goals. Public transport network, bike lanes, or types of vehicles were considered in creating superblocks model.

Superblocks are designed as a grid of basic roads forming a polygon (400x400 meters) with both interior and exterior components. The interior is closed to motorized vehicles and gives preference to pedestrians. They can be used by residential traffic, delivering cars for services, emergency vehicles etc. The revolutionary structure of superblock model is shown in the figure below.

2.4.2 Pobleanu district in Barcelona



2.4.1 Superblock model in Barcelona

2.4.3 Del Centre del Poblenou Park in Barcelona-architectural structure designed for walks, tranquillity, reading, entering into friendly dialogues, for children's non-violent play (Jean Nouvel Les Ateliers)

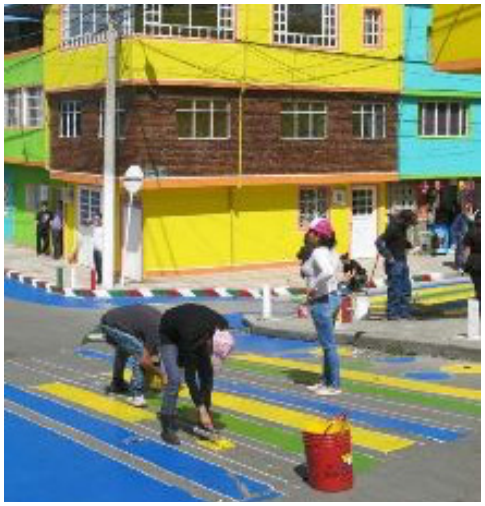
This way of organizing the traffic makes it possible to create safe play areas for children. The street is regained public space. The interior of the blocks is made liveable with benches and colorful road paint. Car travels in one direction only and at very low speeds. Little kids can safely use this space. Their caretakers feel more comfortable with the possibility of using the space in which people play a more important role than car traffic. The street becomes an inviting place.

Poblenou district is a part of the geometrically-planned area of Barcelona. After years of debate the concept was adopted as a centerpiece of the city`s mobility plan in 2015, and a test case was instituted in the neighborhood in September 2016. As a sustainability paradigm it is also solution for pollution problems. Area of 70% of previous street space is now a healthier place for children 0-5 and their caretakers.

2.4.4 Street of Poblenou ditrict in Barcelona

2.4.5 Street of Polbenau district in Barcelona

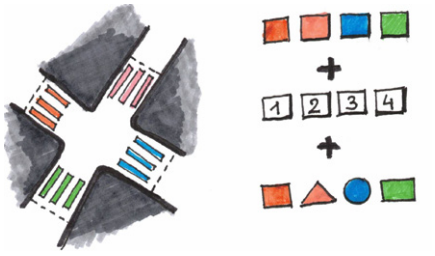
2.4.6 Street of Poblenou ditrict in Barcelona



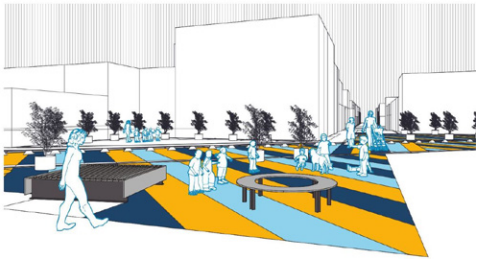
2.4.7 Child priority zone in Bolivar, Bogota

Consider transformation (example of Child Priority Zone in Bolivar Neighbourhood „Bogota Urban 95")

Streets as stimulating and inspiring way for creating the „generation of tomorrow". In the neighborhoods where children play in the streets, use street layer as a creative educational space. Use colors, put numbers, basic shapes. Encourage playing games in public space. In Bogota`s district, Bolivar, streets become „extension" of childcare facilities as they become an extension of people's homes, which have no or limited outdoor space.



2.4.8 Street layer as a creative educational space-mix colors, numbers and shapes



2.4.9 Visualization of an idea of child-friendly square connecting service, education, and housing facilities in Bolivar, Bogota

5. CONNECT NATURE TO YOUNG CHILDREN

Elisabeth Belpaire
Anna Rubczak

Children 0-5 experience the world through touch, smell and taste. The environment influences brain development. It offers a wealth of experiences for the senses; sand, branches, pine cones, grass, mud are good nature materials for stimulating creativity. These materials can be moved, compiled, used for construction. Contact with nature from the very beginning of childhood has a positive effect on respect for animals and sensitivity towards people. Children recognize a healthy food environment, and rules co-benefits with solutions for climate change or basic laws governing nature.
Design environments with focus on quality of the experience for young children, particularly while it addresses their needs and context (unique cultural, environmental). Two diverse examples of aspects of nature provide conclusions that local environmental features can be a source of inspiration in bringing nature to every neighbourhood.

Example of Ghana
A project of educational garden that has been created in Ghana is interesting example of using of local natural resources. The Mmofra Foundation, working to incorporate imaginative play into the cognitive and physical development of children in Ghana, designed it as the experiment in learning. It was the effect of inspiring life-writer`s activist Efua T. Sutherland. Writer and local activist main goal was to enrich lives of children. The grounding them and encouraging creative interaction with their cultural and physical environments. Campaign process moderated by Mmofra Foundation was multidimensional. After several events; art and photo exhibitions, audio-visual and illustrator production, workshops (reached 10,000 students), theater arts and book programs to a multimedia public health,design was successful.
The two-acre Dzorwulu site has become an experimental testing ground for learning through sensory, social and physical play.The design concept took inspiration from Sutherland and Bells' Playtime in Africa, seeking to translate these play archives into actual 21st-century spatial experiences. Ghana's key aesthetics, architectural details were inspiration for designers. The charrette concept plan, which aside from the primary function as an outdoor learning space, began to address issues of sustainability, context-sensitive construction and resource management. Nature in Ghana is a source of fruits, which can be re-used for building instruments. Children are learning how to use nature in a sustainable way (see figure below).

2.5.1 Nature of Ghana and re-use of Calabesh Tree Fruits as instrument

2.5.2 Playtime in Africa Concept Plan derived from charrette by Mmofra Foundation

Example of the Netherlands

The Netherlands is a low-land country. Nature always deals with human beings in man made land. Water is almost everywhere and the responsibility for flood protection is not only an issue for the government. The Dutch society is very responsible for being ready in case of disaster provoked by climate change. The educational aspect which is common in this country, is very important from the very beginning of childhood. An example of designing a space that fulfills an educational role can be used in spaces threatened by flooding. It teaches how the water-element of nature behaves in various technical solutions in the field of hydrotechnical construction.

2.5.3 Venlo, Horticultural Expo in the Netherlands

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ACTICITY
HOW CITIES CAN ENCOURAGE PHYSICAL ACTIVITIES?

There is a rise in non-communicable diseases among urban population that can be related not only to culture and behaviour, but also to the quality of living environment. The urban setting, which is the main living place for the majority of people around the world, can encourage or discourage the inhabitants to be active.

In our research, we were interested to learn how cities can motivate people's physical activity. It can be a simple way of promoting healthy lifestyle as well as prevention of diseases. What kind of urban environment, strategies, and solutions could be helpful to encourage and promote active living. The study took the qualitative methodological approach by making use of a literature review, desk and case study research.

During our work we categorised four main areas and seventeen subcategories of factors which can be addressed in order to create an active city. Main areas are: a) citywide level, b) infrastructure, c) amenities and d) people. For each of the subcategories a toolbox with recommendations has been prepared describing examples of practical applications of each tool. The toolbox has been designed as a guide for officials, planners, architects or citizens and in addition it can foster advocating the change towards active cities.

For more information visit acticity.org

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Jeta Bejtullahu

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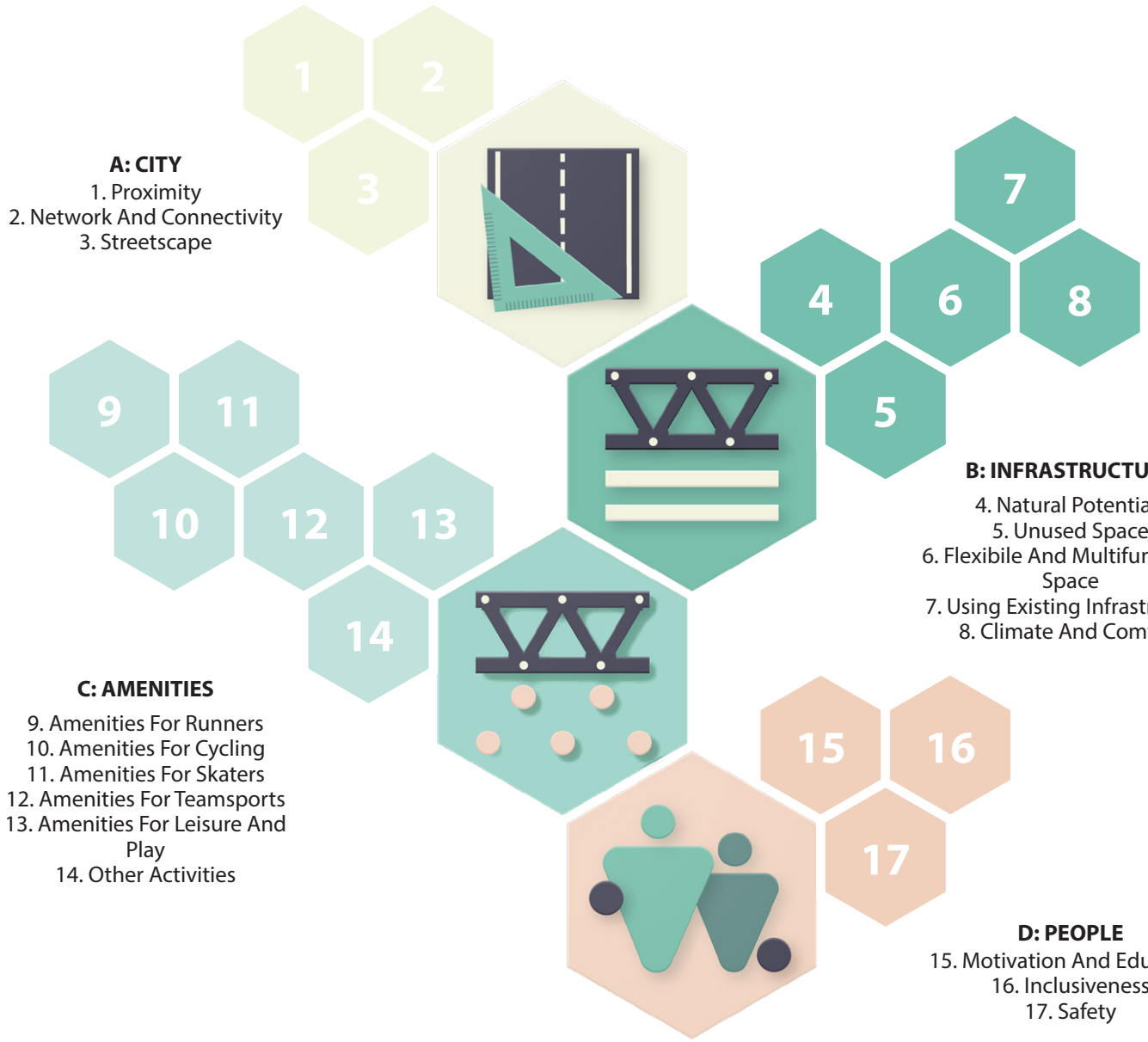
Architecture Student at Gdańsk University of Technology. Interested in urban sustainability and current housing issues. Her hobbies include cycling both in and outside the city and exploring diverse urban environments.

TOOLBOX FOR PROMOTING PHYSICAL ACTIVITIES:



A: CITY

1. Proximity
2. Network And Connectivity
3. Streetscape

B: INFRASTRUCTURE

4. Natural Potentials
5. Unused Space
6. Flexibile And Multifunctional Space
7. Using Existing Infrastructure
8. Climate And Comfort

C: AMENITIES

9. Amenities For Runners
10. Amenities For Cycling
11. Amenities For Skaters
12. Amenities For Teamsports
13. Amenities For Leisure And Play
14. Other Activities

D: PEOPLE

15. Motivation And Education
16. Inclusiveness
17. Safety

1. PROXIMITY

2. NETWORK AND CONNECTIVITY

3. STREETSCAPE

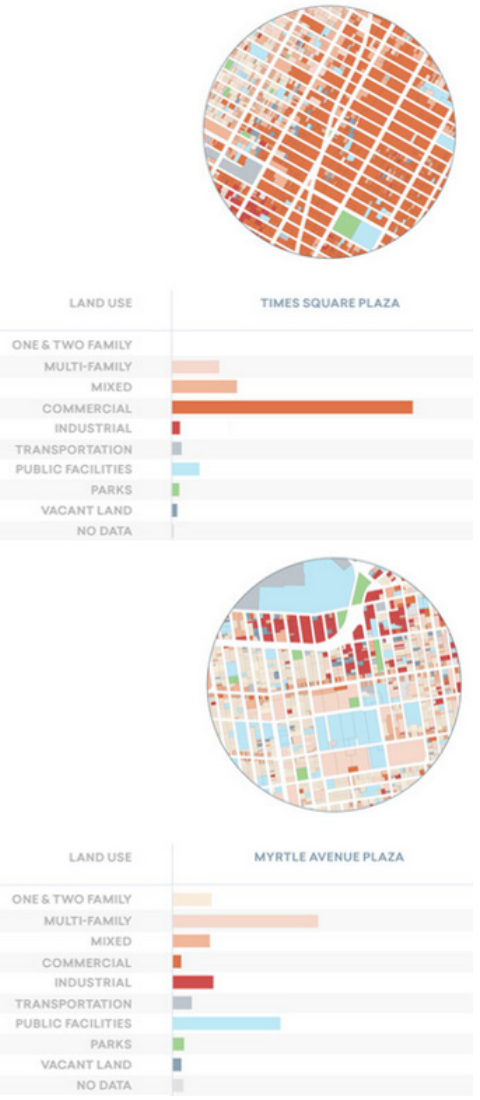
A: URBAN DESIGN

1. PROXIMITY
1.1. High Density And Mixed Land Use

A

Physical activity is facilitated by densification and mixed-use land policies, because the latter make it more possible to keep homes, workplaces, schools, shops and recreational facilities within walking or cycling distance. Increased density of urban structure does not always require high-rises development. Good examples of compact neighbourhoods are the centres of old European cities. The high density and mixed land use bring different destinations closer and affect the proportion of destinations that can be reached by active commuting. People are the more likely to walk or cycle the closer are their destinations. Land-use mix has been shown to reduce obesity by promoting cycling and walking as a transportation mode (Frank, et al. 2004). Since a majority of people will not walk further than 5-6 minutes to a destination, people are more likely to walk to their destinations in denser environments (Millward et al., 2013). Increased densities and mixing land use can also assist in creating safe and vibrant environments by ensuring that a sufficient number of people are present at various times of the day. One of the unfavourable trends as it comes to encouraging physical activity in cities is urban sprawl. It leads to the rise of car-dependency and mono-functional zoning that increases the need for transport.

- **Promote higher density** in urban planning;
- **Develop and maintain mixed land use i**n city neighbourhoods with easy access to destinations, such as offices, schools, shops, cultural and community spaces, parks and recreation facilities;
- **Reduce urban sprawl.** Ensure that long-term development of the city reduces car dependence by integrate land-use and transport planning.
- **Ensure that new housing developments are self-supporting** and appropriately situated or integrated with public transport increasing employment opportunities and services accessibility;



3.1.1.1 An example of a GIS land-use analysis for two locations: Times Squere Plaza and Myrtle Avenue Plaza in NYC.

QUALITY OF LIFE MATRIX (Belfast, UK)
In 2002 an intersectoral strategic planning group was formed. In order to achive the goals of the health strategy of the city it identified the need for a tool that could be used to assess the effects of land-use plans on people's quality of life. Before the end of 2002 the matrix has been created. The foreword of this document asserts: „The links between planning and health are many and varied. (…) There is a clear need for urban planners to integrate health considerations fully in to their work, both in policy and practical terms, and for all sectors in cities to work together to improve health, wellbeing and quality of life."
See more: https://www.belfasthealthycities.com/sites/default/files/publications/QualityofLifeMatrix.pdf

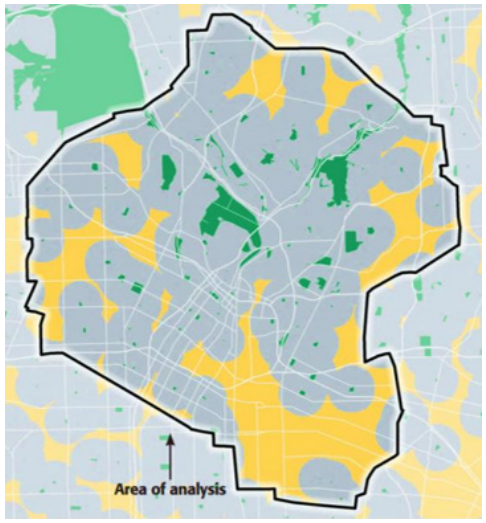
A

1. PROXIMITY
1.2. Distance to Recreational Areas

3.1.2.1 The size matters. An iconic example of a big green area in the center of the city – Central Park - it measures 4 km long and 0.8 km wide with total area 341 ha (NYC, NY, USA).

Neighbourhood parks that are within walking or cycling distance of a person's home or workplace can promote greater physical activity. The research data prove that proximity to parks, coast and other recreational areas is associated with higher levels of physical activity and healthier weight status among youth and adults. People who live within short walking distance (approx. 402 meters) from a park are 25 percent more likely to meet the minimum weekly exercise recommendation of 30 minutes three times a week (Frank et al., 2005). Not only proximity is playing a role, but also how big the park area is and how many different places people can choose (Kaczynski et al., 2009).

- **Locate and design new recreational areas,** such as parks, open spaces, and recreational facilities in every district;
- **Keep short distances.** Ensure that park and open, recreational areas are within a 10-20 minute walking distance of every resident;
- **Improve access to existing areas:** plazas, parks, open spaces, and recreational facilities. Make pedestrian and bicycle routes to parks and public spaces safe and visible;
- When planning a new development, **aggregate open space in one large area** rather than dispersing it into smaller pieces;
- Locate places where people live and work as close as possible to parks, walking paths, trails, and waterfront recreation areas because they foster physical activity;
- Design buildings to enhance, and to provide easy access to nearby parks and open spaces.



3.1.2.2 Example of GIS analysis of parks accessibility in California (the distance assumed for analysis is approx. 805m ~ 8 min of walking). Parks are showed as a green colour. Areas with good access to green spaces are marked a grey colour, and areas with the poorest accessibility is marked as a yellow colour.

EASY ACCESS TO PARKS (Copenhagen, Denmark)
Implementing activity-friendly public policy is one of the key ways Copenhagen ensures the sustainability of its efforts. Eco Metropolis 2015 vision started in 2007 with the objective to make „A green and blue capital city". According to the first measurements, 90% of citizens were supposed to be able to walk to a park or sea-swimming pool within 15 minutes (til 2007 only 60% residents met this condition). The second measurements consisted in giving each inhabitant the chance to visit the city's parks, natural areas, sea swimming-pools and beaches twice as often as by the point of the formulation of the plan.
See more: http://www.proyectomilenio.org/documents/10156/52626/Copenhaguen+2015+EcoMetropolis.pdf

2. NETWORK AND CONNECTIVITY
2.1. Direct Routes for Active Transport

A

The implementation of the active transport as a part of the daily commute is a very effective method of reaching the recommended minimum moderate exercise. That requires a good identification of the commuting directions in the neighbourhoods and in the city. „Connectivity" means street network's capability to provide direct routes to various locations. People walk and cycle more frequently if streets and pedestrian facilities connect their key destinations. One study showed that the chance to walk with a non-work purpose rise by 14% for each 25% increase in the level of street connectivity (Frank, 2005). Dead-end streets (cul-de-sacs) that are often used to establish peaceful neighbourhoods, isolate residential communities from one another and increase the distance between houses and other functions and services. They create longer, indirect routes to different destinations and discourage active transportation.

- **Create a comprehensive plan** for walking and cycling in existing and future developments and integrate the plan with broader transport planning;
- **Design well-connected streets** with many intersections and most direct possible routes between destinations;
- **Create a wide range of possibilities:** accessible and attractive routes for active transport;
- Create a continuous and **barrier-free** networks;
- Link residential areas with major destinations and daily functions;
- **Avoid dead-end streets** or build paths between closed streets;
- Provide pedestrian **paths through existing blocks** to increase the area's walkability;
- Make links between local and regional networks.

3.2.1.1 An example of a typical low-density environment in America's suburbia with low level of street connectivity (Glendale, CA, USA).

3.2.1.2 These two maps depict, with the same scale, one square mile of two very different street designs. On the left is Philadelphia (PA) with a highly connected street network and on the right Irvine (CA) as an example of lower connectivity, bigger urban blocks, winding streets and many cul-de-sacs.

STREET-CONNECTIVITY STANDARD (Cary, NC, USA)

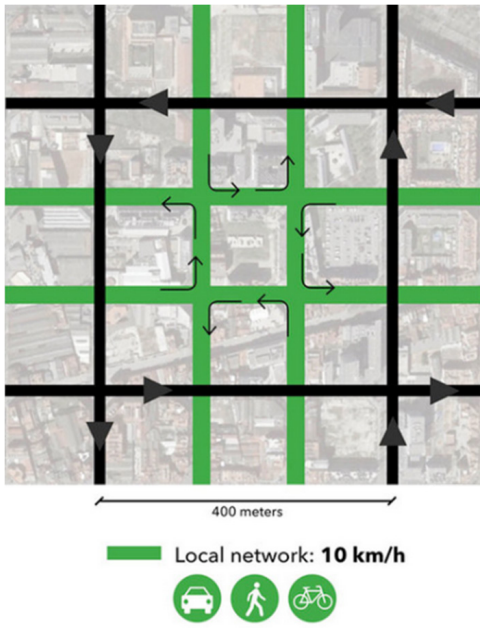
The town of Cary, NC, emphasized street-connectivity standards in Design Guidelines which followed the new Land Use Plan. The guide outlined connectivity characteristics, in particular, new buildings should be linked to other parts of the neighbourhood by continuous sidewalks and to ensure easy access to internal networks for all modes of travel. For residential subdivisions, the guidelines recommended reducing of cul-de-sacs or adapting them to include pedestrian or bicycle connections. In further updates of design guidelines, new residential developments have to also create a pedestrian connectivity index to measure how well the site is connected.

See more: http://americawalks.org/wp-content/uploads/2014/12/261463434-Steps-to-a-Walkable-Community.pdf

A

2. NETWORK AND CONNECTIVITY
2.2. Low-Traffic Neighbourhoods and Access to Public Transport

3.2.2.1 Pilot project of Superblock in Pobleou. Changing road to multifunctional, shared public space (Barcelona, Spain)



3.2.2.2 Barcelona Superblock idea.

The reducation of speed does not only generally affect the perceived sense of safety and comfort of pedestrians, thereby encouraging physical activities, but also influences the chance of survival in case of an accident. Rather than focusing on the separation of different users it is important to adapt traffic deceleration measures to satisfy the needs of different urban contexts. Since it is not possible to reorient completely to active commuting, the integration of networks with efficient public transport options is of essential importance. Intermodal connections must be easy and smooth, with simple and direct access and supporting facilities. Policies that support public transport are likely to have a positive effect on the levels of physical activity, as most people either walk or cycle to and from their train or bus.

- Reorient community design to **favour people over the car;**
- **Limit roads**. Design roads with a minimum number of lanes with a minimum width practical and reduce open ground parking lots as well as street parking;
- **Implement traffic control measures** such as severe restrictions on speed, 20 km/h zones, adequately timed lights, clearly marked crossings, traffic-calming devices (such as speed bumps) and crossing guards at crucial intersections;
- Try to implement **traffic congestion charge.**
- At the same time **make public transport an attractive option** by reducing fares, improving services, making it safer and more comfortable transport hubs, providing up-to-date travel information and connection with other services (small shops, cafes etc).
- **Ensure good access** by foot or bicycle **to transport nodes** and transit facilities. Connect transit stops to trails and paths;

THE SUPERBLOCK STRATEGY (Barcelona, Spain)
The Superblock strategy is set by the city of Barcelona to change urban mobility concepts in order to free up to 60% of the traffic area for multifunctional, will need green public space. The Superblock is composed of nine city blocks (jointly 400x400m), it has its internal traffic reduced to one lane, and transit traffic turned aside to the perimeter roads. The City plans to implement more than half a thousand Superblocks over time with expanding public transport (especially bus lines & bicycle network) in order to reduce car traffic by one fifth.
See more: https://lapinyabarcelona.com/blog-archive/superblocks

TRAFFIC CONGESTION CHARGE (London, UK)
London introduced daily charge for cars which enter a zone in the centre of the city. Although the primary objective was to reduce traffic congestion, cycle journeys have increased by 20% with improving safety conditions (7% reduction in crashes).
See more: https://tfl.gov.uk/modes/driving/congestion-charge

2. NETWORK AND CONNECTIVITY
2.3. Cycling Network

A

Provide cyclists with the highest standard of travel continuity but prioritize pedestrians' needs first. Studies show that people cycle more and obesity rates are lower in countries that have better bicycle infrastructure (Pucher and Buehler, 2008). Increase bicycling by designating bikeways that are appropriate to the street context (the bikeway should be different in low-traffic neighbourhood and in transit street). To transform bicycling into a more attractive option, it is essential to create such facilities as indoor and outdoor bicycle parking, signals, and stair rails, as well as to create a bicycle sharing system.

- **Design interconnected bikeways** and establish a backbone network of unbroken routes;
- **Designate bicycle-specific crossings and signals** to organize the movements of pedestrians, cyclists, and motorists at busy intersections;
- **Expand existing bikeways** where use has exceeded capacity;
- **Provide good-quality cycle-parking facilities** to park along their routes or at the end destinations;
- **Construct bicycle rails along outdoor stairways**, so that bicyclists can use these passageways;
- Boost active transport opportunities for city residents and visitors by providing access to **bike-sharing system**;
- If possible, run bike paths throught green environment, they provide an important supplement and an attractive alternative to the street network;
- **Link cycling network in regional scale** (eg. cycling highways).

3.2.3.1 One of the cyclist-only bridges in Odense.

3.2.3.2 The elevated bicycle roundabout in Eindhoven

3.2.3.3 RijnWaalPad is a cycling highway that connects Arnhem with Nijmegen in the Netherlands. Different types of movement are separate from each other.

CYCLING CITY (Odense, Denmark)
Between 1999 and 2002, 50 projects were promoted and enabled cycling was implemented, including physical improvements, changes in regulations and campaigns, with an emphasis on trying out innovative ideas. By the end of 2002, cycling traffic had increased by 20%, and the number of accidents involving cyclists had been reduced by 20% compared with 1996–1997. By now a city of under 200,000 people, has almost 540 km of cycle paths and 123 cyclist-only bridges.
See more: https://stateofgreen.com/en/partners/city-of-odense/solutions/cycle-city-odense/

CYCLING HIGHWAYS (Netherlands)
"Cycling highways" particularly aiming to tackle traffic jams during rush hours. The assumption was made that 15 km is a reasonable distance for commuting by bicycle. Also, 61% of the working population lives within this distance to their work place. The accompanying website provides cycling routes for several distances and for all parts of the country.
See more: www.fietsfilevrij.nl

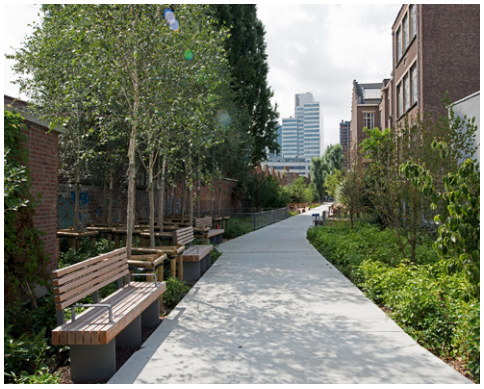
A

2. NETWORK AND CONNECTIVITY
2.4. Green Network

3.2.4.1 The Midtown greenway (Minneapolis, MN, USA)

Create alternatives to streets in the form of green, uninterrupted corridors that connect recreational spaces in the city. If they can be used both for commuting and recreational purposes, the inhabitants can enjoy a perfect environment that encourages walking, cycling and other activities.

- **Conserve and develop green spaces, and make „pocket" parks** by using small, unused pieces of land in urban areas to make recreational spaces;
- **Develop greenways,** linear green alterative routes accessible to all residents, linking all recreational places in the city, leisure places, squares, parks, boulevards and other outdoor places for active living;
- **Develop a cohesive system of neighbourhood parks and paths** to connect homes with schools, workplaces and shops;
- **Integrate parks into a regional** park system.



3.2.4.2 Parc de la senne (Brussels, Belgium)

3.2.4.3 Project of Green Belt (Milan, Italy)

THE MIDTOWN GREENWAY (Minneapolis, MN, USA)
The Midtown Greenway is a 9.2 km long rail trail in Minneapolis. Used both recreationally and for commuting, the partially below-ground Greenway runs in the city in east-west direction. It provides pedestrians, runners, cyclists, and inline skaters an almost automobile-free route across the whole city. It has been created as a grassroots initiative.
See more: https://midtowngreenway.org/about-the-greenway/

PARC DE LA SENNE (Brussels, Belgium)
This linear park of 1.6 km lenght is located in the bed of the Senne river (covered in XIX century). It was created to reinforce the identity of the district through its current plant fabric and links the regional green networks of Brussels-Capital.
See more: http://www.compagniedupaysage.com/projects/parc-de-la-senne/

GREEN BELT (Milan, Italy)
It is about connecting all nine parks on the edge of the city, by creating "Green Belt" which runs all around the city, 60 km in circumference, linking existing public plazas and squares with new green areas, new tree-lined paths for recreational activities, playing, walking and cycling.
See more: https://www.scoop.it/topic/architecture-and-construction/p/3425274241/2012/11/21/andreas-kipar-la-cintura-verde-milano

THE BROOKLYN-QUEENS GREENWAY (New York City, NY, USA)
is a 64 km long, continuous pedestrian and cyclist route from Coney Island in Brooklyn to Fort Totten, on the Long Island Sound, in Queens.
See more: https://www.nycgovparks.org/sub_things_to_do/facilities/images/Brooklyn_Queens_GreenwayGuide.pdf

2. CONNECTIVITY
2.5. Separate Routes for Transit

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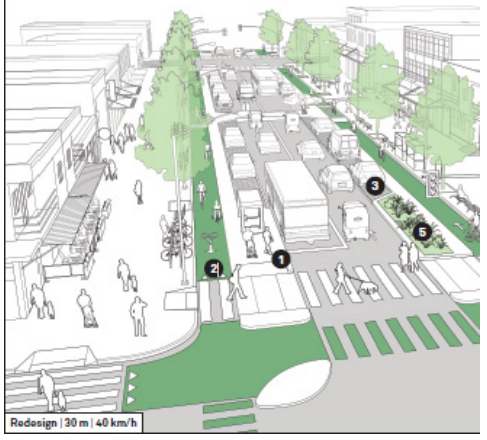
First approach, especially when it comes to transit routes, the idea is to separate types of movement. Traffic buffers that create physical barriers between vehicles and the sidewalk make pedestrians feel less exposed and increases their safety by providing protection from vehicles. Buffers can be raised or at grade and should be no less than 1m wide. On-street parking serves as an effective buffer from traffic for pedestrians and can have a traffic calming effect, although street parking poses dangers to bicyclists. Some cities have worked around this problem by moving bicycle lanes between sidewalks and parking strips. When adjacent to sidewalks or pedestrian spaces, cycle transit facilities should be physically separated for the comfort of both pedestrians and cyclists.

- **Build separate lanes** for pedestrians, cyclists and cars on busy transit streets.
- **Create green buffers** to create a barrier from traffic;
- **Clearly marked lanes** help everyone to share the road and makes the transport experience better for everyone, increase safety and amount of active users;
- **Install physical demarcations** between cycle and automobile lanes (on every street with vehicular speeds more than 30 km/h or with high vehicular traffic);
- **Move bicycle lanes between sidewalks and parking strips**, to avoid potential conflicts between cyclist and parking cars (if it is not possible use wider parking lanes - up to 3 meters);
- Pay special attention to the treatment of bikeways at intersections and other points where the street form changes, in order to mitigate potential visibility issues and turning conflicts;

3.2.5.1 Copenhagen style bike lane separation.

GLOBAL STREET DESIGN GUIDE (USA)
The Global Street Design Guide is a compendium of design guidelines on how to create safe, sustainable and healthy cities through transforming streets. It has been written by Global Designing Cities Initiative, which is a program of NACTO (North American network of 81 cities and transit agencies). The Guide supports practitioners in redefining the role of streets in various cities all over the world. Created with the input of experts from 72 cities in 42 countries, the Guide offers technical details to inform street design that prioritizes pedestrians, cyclists, and transit riders.
See more: https://globaldesigningcities.org/publication/global-street-design-guide/



3.2.5.2 The drawing illustrates how a street could better serve the needs of transit cyclist. It is an example from Global Street Design Guide.

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2. CONNECTIVITY
2.6. Shared Routes for Recreation And Living

3.2.6.1 Woonerf at the Abraham Street is an example of shopping street in city center in Gdynia (Poland).

3.2.6.2 Woonerf at the 6 Sierpnia Street near Piotrowska Street - main street in city center in Łódź – the forerunner of the shared streets in Poland.

3.2.6.3 Dutch woonerf (Netherlands)

The second approach, more adjusted to calm routes, is to create a shared street. The concept comes from the Dutch „woonerf" what means city courtyard. This is a street where cars, pedestrians, cyclists, and other local residents travel together without traditional safety infrastructure to guide them. Woonerf is generally free of traffic lights, stop signs, curbs, painted lines, etc. The basic idea is that once these controls are stripped away, everyone is forced to become more alert and ultimately more cooperative. Design strategies should prioritize vulnerable users, ensuring that clear paths are maintained.

- **Transform streets with low traffic and high numbers of pedestrians into shared streets.** Roads in residential areas, shopping streets or other attractive open spaces are suitable for general use;
- Provide **tactile warning stripes** at the entrance to shared spaces so that they are clearly visible;
- Change materials and colors to **designate different zones**. Keep a clear path for cars, bikes and delivery vehicles, by changing the pattern or type of surface. Parking zones must be clearly marked to avoid unregulated parking;
- To **ensure slow movement** of vehicle shared street use chicane and surface treatments to encourage drivers to reduce speeds by diverting their path
- **Delineate the travel lane from pedestrian-only areas** by using street furniture, including benches, flower pots, works of art, trees, fountains, bollards or bicycle parking lots;
- If possible, **include landscape features** such as planters and trees;
- **Provide drainage channels** in the middle of the street or along the flush curb, depending on underground media and other existing conditions. Choose surfaces, materials and furniture based on regional climate and durability;
- By **using temporary materials** cities can experiment with car-free hours or test shared streets to assess the potential impact on traffic;
- In the early stages of conversion consider installing signs to educate the public on how to use the common street.

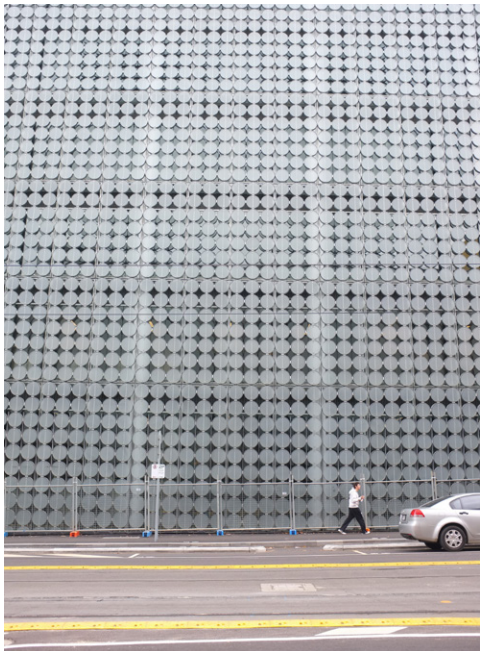
WOONERF AT THE ABRAHAM STREET (Gdynia, Poland)
Vehicular traffic on Abraham Street is allowed in one direction with a speed not exceeding 20km/h with priority for pedestrians, and parking can only take place in designated places. Bicycle traffic is allowed in both directions. The number of parking spaces has been significantly reduced. The restaurants and cafes use the extended space along the buildings for umbrellas and tables. Spare spaces were changed to biologically active areas, planted and highlighted new acacia trees and created small lawns.
See more: http://a2p2.pl/en/opening-of-the-woonerf-in-abrahama-street-in-gdynia/

3. STREETSCAPE
3.1. Quality of Space

Some spaces can be perceived as out of scale or intimidating as they overwhelm the scale of the human body. The dimensions of public spaces can influence a person's level of comfort, as well as the perception of distance, which in turn may affect one's level of physical activity. The urbanist Jan Gehl (2010) has argued that the most active and attractive streetscapes are those that offer fresh visual details every five seconds, because as humans we receive about 75% of all stimuli through eyes. Building frontage design plays a major role in shaping the overall pedestrian experience. In particular the ground floor (5m from the bottom) influences the character of the street and the level of pedestrian engagement. In contrast, walking along blank, unfriendly structures, vacant lots or garage doors lined up along streets, can cause one to feel oppressed and can discourage appearance in such a space.

- Encourage walking by creating **attractive and engaging street environments;**
- Provide **frequent entrances**, appropriate **transparency** levels, **visual variation**, and **textures** that contribute to engaging pedestrians, encourage pausing, provide passive surveillance;
- Sidewalk cafés enhance street activity but where provided, accessible clear paths should be maintained;
- **Aesthetic and place-making features** are important elements to encourage pedestrian activity (for example artwork, event etc.)

3.3.1.1 Example of human scale street – narrow, full of detailes (Verona, Italy)



3.3.1.2 Example of unhuman scale - wide, monotonous street (Melbourne, Australia)

THE URBAN DESIGN QUALITIES (Ewing and Handy, 2009)
The study found five design qualities to be critical to encouraging walking and other physical activity, definitions from research are as follows:
„Imageability is the quality of a place that makes it distinct, recognizable, and memorable. A given place has a high imageability when specific physical elements and their arrangement capture attention, evoke feelings, and create a lasting impression.
Enclosure refers to the degree to which streets and other public spaces are visually defined by buildings, walls, trees, and other vertical elements.
Human scale refers to a size, texture, and articulation of physical elements that match the size and proportions of humans and, equally important, correspond to the speed at which humans walk.
Transparency refers to the degree to which people can see or perceive objects and activity, especially human activity, beyond the edge of a street.
Complexity refers to the visual richness of a place. the complexity of a place depends on the variety of the physical environment."
See more: https://activelivingresearch.org/sites/activelivingresearch.org/files/FieldManual_071605.pdf

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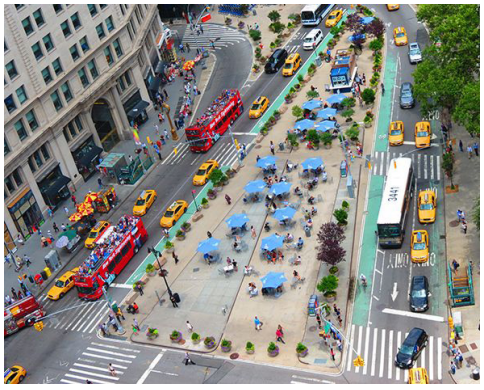
3. STREETSCAPE
3.2. Plazas

3.3.2.1 Public space in Flatiron Plaza (NYC, NY, USA).



3.3.2.2 Flatiron Public Plaza from a bird's eye view after changes (NYC, NY, USA).

3.3.2.3 Fountains on Täby Torg Square (Stockholm, Sweden)

A public square is a publicly accessible space that excludes cars and promotes walking, providing pedestrians with a safe, comfortable place to gather, play or simply watch things. Because squares and open spaces are often welcome "breaks" or respite places from the urban grid, they contribute significantly to the city's image and active street environment. They also provide destinations for those involved in active transport, such as walking or cycling. Design squares along with popular pedestrian areas where space allows, to support recreational activities.

- Create public spaces such as plazas that are **easily accessible** to pedestrians and bicyclists that are level with the sidewalk;
- Locate public plazas **along popular pedestrian streets** and **near transit stops**;
- **Change road lines and parkings** to more pedestrian space and plazas;
- Design plazas that allow for **diverse functions**, and to accommodate use in a variety of weather conditions;
- Introduce the o**bligation to create new public spaces** accompanying new investments;
- Seek **partnerships** with community groups to maintain and program plazas.

PUBLIC SPACE POLICY (Portland, OR, USA)
The city of Portland (Oregon) allows transit squares to be created by exchanging up to 10% of parking spaces that would otherwise be required. Such transit squares must be at least 300 square feet, be open to the public and contain the necessary amenities, such as seating, shelter or other weather protection and landscape improvement, through trees and shrubs along the road. The code can be used not only in new projects, but also allows the transformation of existing parking lots into transit squares.
See more: https://www.portlandoregon.gov/bps/article/53320

TÄBY TORG SQUARE (Stockholm, Sweden)
Transformation of parking lot into a square for citizens to gather for events, activities and enjoy the urban life. The square was intended to give this place new identity.
See more: https://www.archdaily.com/780927/taby-torg-polyform

FLATIRON PLAZA (New York City, NY, USA)
The plazas and accompanying reconfiguration of traffic patterns at the intersection of Broadway, Fifth Avenue, and 23rd Street transformed a discouraging pedestrian environment into a space that supports physical activities.
See more: https://www.flatirondistrict.nyc/bid-programs/public-improvements

3. STREETSCAPE
3.3. Introduction of Green Features

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If possible, include the function of natural landscape to create a pleasant environment for walks, contribute to the character of the district and encourage the active choice of transport. Landscape architecture improves microclimatic conditions, cleans the air, filters water and increases the city's biodiversity, offering benefits for physical and mental health. Placed between the street and the pavement, trees are a physical and psychological barrier between vehicles and pedestrians. Properly spaced trees provide a continuous shade that increases pedestrian comfort and physical well-being, especially in warm climates. Trees give the people a sense of security and enveloping, add natural color and beauty, mitigate storm water runoff and improve air quality.

- Provide **a clean and attractive environment** that invites people to be active in their neighbourhoods;
- Sidewalks should be wide enough to accommodate a **landscaped "planting strip"** which serves as a barrier from traffic and a place to plant trees;
- **Make city streets active leisure zones** suitable for older people and kids. Plant trees and flower beds to make city squares attractive and to provide shade;
- **Create a canopy of trees along the streets.** It should hangs relatively low, to ensure shade, but high enough not to threaten pedestrians passing under it.
- **Plant more mature trees** to accelerate the benefits of new greenery.

3.3.3.1 Program Greenstreets helped transform a Bronx intersection from a desolate zone into a more appealing pedestrian environment (NYC, US).

GREEN STREETS (New York City, NY, USA)
Launched in 1996, Greenstreet is a New York program that transforms paved, empty road and central islands into green spaces full of trees, flowers, shrubs and ground cover. Such efforts to change the street landscape are more than embellishment. They also have the potential to improve health, by encouraging walking and other physical activity. The program is a joint effort of the New York departments of transport, parks, and recreation.
See more: https://centerforactivedesign.org/guidelines/

GREEN POLICY (Arlington County, VA, USA)
Arlington County, Virginia requires trees on every street in the design area. Wherever the regulating plan does not show specific street tree placement, street trees shall be planted along the street tree alignment line at an average spacing not greater than 9 meters. Arlington also requires a minimum amount of unpaved soil to promote the health and longevity of trees, open soil surface area shall be not less than 6 square meters (with a minimum of 1,5 meter in any direction) per isolated tree, and connected (tree strip) planting areas are encouraged. At planting, to accelerate the benefits of new greenery, trees shall be at least 10 centimeters in diameter and at least 3.6 meters in overall height.
See more: https://building.arlingtonva.us/codes-ordinances/zoning/

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3. STREETSCAPE
3.4. Essential Amenities

3.3.4.1 Benches under the shadow of trees in Old Street (London, UK).

3.3.4.2 Curb extension of the sidewalk. It increases the overall visibility of pedestrians by aligning them with the parking lane and reducing the crossing distance for pedestrians (Bowling Green, KY, USA).

The walking experience should be pleasant and safe. Older adults, disabled pedestrians, and families may need to stop and rest frequently. There is a need for public benches and places where pedestrians can rest, meet with a friend or wait for transit. Street furniture is often treated as optional equipment, but it can significantly contribute to the comfort and character of pedestrian space. The visibility of these spaces from the surrounding areas improves the safety of both seated and pedestrians nearby, so ensure transparency and street lights. To avoid visual clutter and obstacles for pedestrians, street furniture should be grouped at specific intervals along the street so that furniture clusters can function as pedestrian stops and potential assembly points without obstructing pedestrian traffic.

- **Make sidewalk widths consistent with their use**, paths should be wide enough to allow benches for older adults and families to stop and rest or relax. Wide sidewalks can also provide room for outdoor dining, public art, and other community-oriented activities;
- **Provide basic amenities** such as: seating, drinking fountains, restrooms, and other infrastructure that support increased frequency and duration of walking, orient benches in direction to interesting and pleasant views, greenery, historical sites etc;
- **Provide suitable geometry of paths.** Paths should be smooth, with gentle transitions in height difference, sufficiently wide with curb cuts and turning radius adequate for a wheelchair or walker;
- Support physical activity among people with disabilities by **making streets and paths universally accessible,** avoid creating pedestrian over- and underpasses that force walkers to change levels;
- Provide more **comfortable pedestrian crossings**, which enhance visibility and safety. Construct curb extensions along sections of the sidewalk that tend to attract greater pedestrian congestion, thereby narrowing the width of the road to pass;
- Paths near busy crossing should have auditory crossing signals, ensure adequate crossing times, clear signage, visible access ramps;
- Maintain sidewalks and keep them **clear of ice and snow**;
- Provide exterior **lighting** along streets and outdoor paths;

ACTION PLAN FOR PHYSICAL ACTIVITY (Austria)
The National Action Plan for physical activity includes measures to promote physical activity through funding from sports-for-all organizations. In addition, the Federal Ministry of Labor, Social Affairs, Health, and Consumer Protection provides guidelines for the design of senior-friendly public spaces to ensure mobility for everyone.
See more: http://www.euro.who.int/__data/assets/pdf_file/0009/382338/austria-eng.pdf?ua=1

4. NATURAL POTENTIALS

5. UNUSED SPACE

6. FLEXIBILE AND MULTIFUNCTIONAL SPACE

7. USING EXISTING INFRASTRUCTURE

8. CLIMATE AND COMFORT

B: INFRASTRUCTURE

4. NATURAL POTENTIALS
4.1. Access to Green Space

B

Green spaces play a significant role in supporting urban ecological and social systems, a fact recognized in public policy commitments in Europe. The amount of provision, the distribution of green space, and the ease of access to such areas are vital contributors to social and ecological function in urban environments. Green spaces can fulfil many functions in the urban context that benefit people's quality of life. Green spaces, especially public parks and gardens, provide resources for relaxation and recreation. Ideally, this helps in emotional healing (therapeutic) and physical relaxation.

- **Revitalize and upgrade** the existing experience into green public spaces can bring positive health, environmental and social outcomes for all groups of population;
- **Design the urban green space intervention** within the context of the whole urban area and the surrounding environment. For example, consider the connectivity of the intervention with other green spaces (e.g., green trails or biodiversity corridors) and urban destination points (e.g., city centre or local points of interest);
- Ensure that the urban green space is **socially accessible** so that it feels welcoming and inclusive for all community subgroups; Access to green and public spaces should be free of charge to enable active use by all.

3.4.1.1. Jack Evans Boat Harbour

3.4.1.2. Yangpu Riverside Public Space

JACK EVANS BOAT HARBOUR (Tweed Heads, Australia)
The design strongly promotes physical activity by providing a range of public domain elements such as extensive walkways and cycle-ways. Steps, ramps for those with physical challenges, and unique water front conditions allow access to the water's edge for swimming and boating. At 4.3 hectares, the parklands cater for a range of other uses enabled by the promenade including meeting places, weekend markets, memorials, children's play spaces and generous green banks for relaxation.
See more: https://www.aspect-studios.com/au/project/jack-evans-boat-harbour-tweed-heads-stage-1

DEMONSTRATION SECTION OF YANGPU RIVERSIDE PUBLIC SPACE (Shanghai, China)
The Demonstration Section of Yangpu Riverside Public Space is the initialling stage for the public space development project of the area. It is highly important for it is a benchmark not only for the area, but also for the entire 45km long riverside restoration project.
See more: https://www.archdaily.com/930494/demonstration-section-of-yangpu-riverside-public-space-original-design-studio

B

4. 4. NATURAL POTENTIALS
4.2. Places to Sit, Eat and Drink

3.4.2.1. The Flow

The possibility of using public spaces for ecosystem services may give designers a chance to explore a new type of urban aesthetics. Urban street furniture can be created from recycled and reused materials that were returned to the recycle stream.

- Pedestrians can **experience and interact** with the prototypes of urban street furniture;
- **Interactive landscape** encourages multiple people to rock, swing, or play together;
- **A (public) call for artists and designers** to transform a particular zone or area into a public platform and showcase exciting ideas for improving the city's civic spine;
- **Street furniture** can be created from recycled and reused materials.

3.4.2.2. Red Ribbon Park

3.4.2.3. Triumfalnava Square

THE FLOW (Tambon Saen, Thailand)
Various uses and accommodates multiple activities as a multipurpose pavilion suitable for the community and the location. People can sit on different tiers to relax and enjoy the view without blocking ones behind. This fold may become a small amphitheater for mini-concerts, performances, and meetings. Many other usages are still opened up for interpretation by users.
See more: http://www.kritbodee.com/the-flow

RED RIBBON PARK (Qinhuangdao, China)
The Red Ribbon running through this Qinhuangdao park can be seen against the background of natural terrain and vegetation, spanning 500 meters (547 yards), integrating the functions of lighting, seating, environmental interpretation, and orientation. While preserving as much of the natural river corridor as possible.
See more: https://urbannext.net/qinhuangdao-red-ribbon-park/

TRIUMFALNAYA SQUARE (Moscow, Russia)
Triumfalnaya square is historically a place for rendezvous, a romantic place in the city. Instead of benches, there is a long row of 2 person swings. From a space of transit, it turned into a space of stay, being always full of people - meeting up, having coffee, concert goers, skateboarders, vapers, musicians.
See more: https://www.archdaily.com/883856/triumfalnaya-square-buromoscow

RELAX – MARKET STREET (San Francisco, USA)
Relax is a playful outdoor stage for the public to make their own. An interactive landscape that encourages multiple people to rock, swing, or play together, while also experiencing the neighborhood from a different perspective. During its temporary stay, children, yogis, dogs, and passersby enjoyed this fleeting addition to the cityscape.
See more: https://snohetta.com/projects/285-relax-market-street-prototyping-festival

4. NATURAL POTENTIALS
4.3. Access to Water through Beaches, Jetties and Platforms

B

Natural elements, including water, conquer one of the most important factors shaping a sustainable urban space. The prominence of water results from its multifaceted impact both on the physical and visual conditions of the place.
The redevelopment of waterfront is examined with socioeconomic meaning in the context of the cities and the impact it has on it. As we see from the different study cases is that a successful waterfront redevelopment cannot be achieved only through technical policies, but with political, economic, and social considerations for each current city or country. While each project is unique, we understand that they have some similarities, whether that would be in planning, organization, or management issues. However, when waterfront spaces attract different population target for different reasons and activities, these areas might foster interactions that promote public space vitality.

- **Increase access and views** to the waterfront;
- Enhance the waterfront, the **existing functions and new typologies** of functions so that it would enable to set the basis for a self-sustainable waterfront area;
- Create **interaction and dynamism** in the area and along the waterfront itself;
- Create **functional division** of the embankment into quiet and active zones;
- Create **new leisure** opportunities for residents.

3.4.3.1. Paprocany Lake Shore

3.4.3.2. Confluence Park

3.4.3.3. Aarhus Harbour Bath

PAPROCANY LAKE SHORE (Tychy, Poland)
Remodeling of the recreational area at the Paprocany lake is another project focused on exposing values of the landscape and expanding recreational offer for resident of city.
See more: https://www.archdaily.com/775301/paprocany-lake-shore-redevelopment-rs-plus

CONFLUENCE PARK (Denver, USA)
Once an industrial dumping ground, Confluence Park is now a premier outdoor recreation destination.
See more: https://www.outdoorproject.com/united-states/colorado/confluence-park

AARHUS HARBOUR BATH (Aarhus, Denmark)
Aarhus Harbor Bath and adjacent Beach Bath provide new ways for the public to enjoy the water in all seasons.
See more: https://www.archdaily.com/900107/aarhus-harbor-bath-big

CITY DECK (Green Bay, USA)
The CityDeck and Downtown redevelopment started from a desire to create a better place, a richer community for families and kids at the heart of the old city.
See more: https://urbannext.net/the-citydeck/

B

4. NATURAL POTENTIALS
4.4. Boulevards for Leisure

3.4.4.1. Oxford Street

The promenade is a stage of transition between maintaining the identity of the place and the contemporary urban design facilities. The idea is to understand the state of redevelopment for the users and design an interactive environment where the change in mobility (movement and flow) create an opportunity for the people to experience that place (hopeful architecture also in a new way).

- **Identify places of interest and make interventions** to reconfigure the existing urban spaces;
- Create a **place for people** whose shape is defined by the very activity developed in it at a given time;
- **Traffic-free boulevard** will make the area substantially cleaner, safer, and fairer for everyone, creating one kind of the most exceptional public space.

3.4.4.2. The Public Square and Gardens at Hudson Yards

3.4.4.3. The Public Square and Gardens at Hudson Yards

OXFORD STREET (London, UK)
Transformation of the Oxford Street into a pedestrianized boulevard.
See more: https://www.london.gov.uk/press-releases/mayoral/oxford-street-transformation-plans

THE PUBLIC SQUARE AND GARDENS AT HUDSON YARDS (New York, USA)
The Public Square and Gardens speaks to the urban condition; it is a place for the individual, an informal gathering, events, exhibitions and more. Articulated as curving walls and contrasting hues in the pavement these elliptical forms converge at the base of Vessel, a monumental artwork and focal point. 400 linear meters of seating in the form of benches and low walls reinforce the Plaza geometries, innately encourage visitors to use the space as a site of reflection and repose.
See more: https://www.hudsonyardsnewyork.com/discover/public-square-and-gardens

ECO BOULEVARD IN VALLECAS (Madrid, Spain)
An urban recycling operation consisting of the following actions: insertion of an air tree-social dynamizer, over an existing urbanization area, densification of existing alignment trees and reduction and asymmetric arrangement of wheeled traffic circulation.
See more: https://www.archdaily.com/6303/eco-boulevard-in-vallecas-ecosistema-urbano

WHITE FLOWERS BOULEVARD (Kazan, Russia)
The park is located on site of a former parking lot. The constant conflict between cars and pedestrians was dangerous, as there was no pedestrian route from houses to bus stops and the school.
See more: https://www.domusweb.it/en/architecture/gallery/2019/11/07/the-rise-of-kazan-capital-of-tatarstan-and-of-partecipatory-design.html

4. NATURAL POTENTIALS
4.5. Swimming Separated Zones

B

The character of water sources in the creation of public spaces includes a very diverse range of functions and activities related to it, such as recreation, rest, education, promote social bonding, and often as places for organizing various cultural events. Therefore, water in public spaces is not only an element of the composition but also a factor shaping a particular microclimate. Moreover, the potential of water in urban space is limitless and not fully utilized yet, which is confirmed by various subsequent realizations, encouraging with artistic and technical solutions, as well as indicating the ever new possibilities of using water. Some of the selected examples present the contemporary design of waterfronts in shaping public spaces.

- **Increase access and views** to the waterfront;
- Enhance the waterfront, the **existing functions and new typologies** of functions so that it would enable to set the basis for a self-sustainable waterfront area;
- Create **interaction and dynamism** in the area and along the waterfront itself;
- Create **functional division** of the embankment into quiet and active zones;
- Create **new leisure** opportunities for residents.

3.4.5.1. Copenhagen Harbour Bath

3.4.5.2. Piscine du Rhone

4.5.3. Tainan Spring

COPENHAGEN HARBOUR BATH (Copenhagen, Denmark)
It extends the adjacent park over the water by incorporating the practical needs and demands for accessibility, safety and programmatic flexibility.
See more: http://landezine.com/index.php/2010/09/copenhagen-harbour-bath/

PISCINE DU RHONE (Lyon, France)
Former parking lot turned open, municipal swimming pool and public space on the bank of Rhone River.
See more: https://www.lyon-france.com/Je-decouvre-Lyon/activites-loisirs-et-bien-etre/Baignades-et-piscines/piscine-municipale-du-rhone-centre-nautique-tony-bertrand

TAINAN SPRING (Tainan West Central District, Taiwan)
A large commercial structure that no longer serves its intended purpose has become a drain on the vitality of downtown Tainan. Tainan Spring shows what solutions are possible for unused shopping malls now that online shopping is supplanting physical stores.
See more: https://www.archdaily.com/935346/tainan-spring-mvrdv

HASLE HABOUR BATH (Bornholm, Denmark)
The Harbour Bath is a floating platform placed within the network of breakwaters. From the horizontal plane of the platform, two stair formations project from that base, one reaching six meters into the air.
See more: https://whitearkitekter.com/project/hasle-harbour-bath/

B

4. NATURAL POTENTIALS
4.6. Water Sports Destinations

Public spaces encourage personal interaction and promote behaviors such as doing sport and recreational activities. Apart from continuing to promote activities such as walking, running, or cycling, attempts could also be made to encourage the use of public spaces for other activities such as water sports and recreational water activities, including kayaking, paddle-boarding, flyboard-flying, barefoot water-skiing, SUP Yoga and many more. Based on the examples listed below, we can evaluate some of the main attributes, as both of the cases have given the place a new public water-space that supports activities and attracts local people as well as visitors to swim and enjoy water sports or experience the fantastic waterfront.

3.4.6.1. The Floating Kayak Club

3.4.6.2. The Floating Kayak Club

3.4.6.3. Faaborg Harbour Bath

THE FLOATING KAYAK CLUB (Copenhagen, Denmark)
As the building floats, the relationship between the building and the water is so close that the user gets the full experience of practicing the sport in its true environment. Two volumes, one dedicated to the users, the other to the kayaks, creates a courtyard surrounding a central water space angled to give the users full advantage of the direct sailing route into the fjord. The central water space strengthens the community and supports a 'club-feeling'.
See more: https://archello.com/project/the-floating-kayak-club

FAABORG HARBOUR BATH (Faaborg, Denmark)
The Harbour Bath is designed to tie a closer link between the city and the sea. Three thematic piers give room for everyone: toddlers, children and young people can go wild while others enjoy the view of Faaborg Fjord.
See more: http://jdsa.eu/fab/

5. UNUSED SPACE
5.1. Small Areas Inbetween

B

Regeneration of unused spaces, including small and narrow courtyards or between the buildings, consists of renovating the existing area by using different modulus, to articulate different spaces and define new activities for the community.

- **Create installation** (spaces) that would attract kids and adults alike to come and use it, rather than pass by and observe it;
- **Making interventions** that would turn a circulation area into a zone to stop, engage, and spend some quality time interacting with other people;
- The neighbourhood can be introduced to the public by means of **revitalization**, presenting something completely new to the locals.

3.5.1.1. Red Planet

RED PLANET (Zhabei Qu, China)
Public space intervention designed to foster interactions, attract customers and enhance the experience in the privately-owned public space within an open-air Retail Street.
See more: https://estatemag.io/projects/red-planet-100architects/

PIGALLE DUPERRÉ (Paris, France)
The Pigalle court, aims to explore the relationship between sport, art and culture and its emergence as a powerful socio-cultural indicator of a period in time.
See more: https://www.dezeen.com/2015/08/12/pigalle-duperre-ill-studio-paris-basketball-court-multicoloured-installation/

CANCHA LA DOCE (Mexico)
Returning to the community a vital space located in one of the municipalities with the highest marginality and with one of the highest rates of violence to the east of the ZMVM, in the State of Mexico.
See more: https://www.chilango.com/ocio/cancha-la-doce-en-valle-de-chalco/

COOL COOL SEASIDE (Gushan Dist., Taiwan)
A local neighbourhood situated just between that bustling road and the pier-side, where the place is decorated with some casually erected melon sheds, a small square in front of the temple, and plenty of randomly placed plantations. Above all, you will also be treated to some waterfront sceneries in the cool breeze as you stand in this subtropical city of Taiwan.
See more: https://www.dezeen.com/2019/02/12/cool-cool-seaside-atelier-lets-basketball-courts-shipping-containers/

3.5.1.2. Pigalle Duperré

3.5.1.3. Cancha La Doce

B

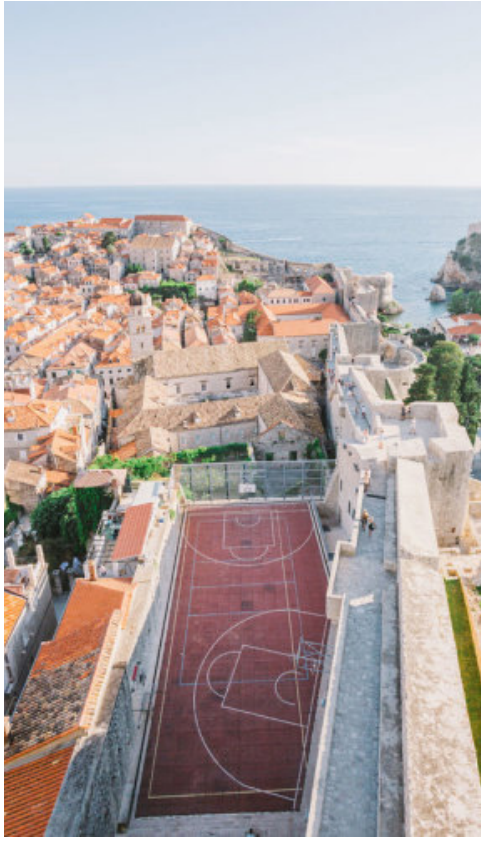
5. UNUSED SPACE
5.2. Rooftops

The use of rooftops with outdoor play areas are an increasingly common feature of new developments as developers respond to growing urban density. Rooftop spaces are especially valuable in densely packed urban areas where green outdoor spaces may be few and far between.
Nevertheless, there are specific challenges when creating urban and spaces on rooftops. As any play area, safety is essential, but in rooftop spaces, the safety process starts before construction with risk estimate, plans for site safety management, and various construction certificates required.

- **Introduce rooftop play schemes** - each project requires a specific formula determined by the building methods employed, the materials used, and the type of play equipment selected.

3.5.2.1. Park 'n' Play

3.5.2.2. Park 'n' Play



3.5.2.3. City Wall Court

PARK 'N' PLAY
(Copenhagen, Denmark)
Lüders Park 'n' Play is an example of a new approach to urban spaces in dense cities, by creating a functional parking structure, which is also an attractive public space. As an urban recreation space for children and adults on top of a parking structure tells the story of an active area.
See more: https://dac.dk/en/knowledgebase/architecture/park-n-play/

CITY WALL COURT
(Dubrovnik, Croatia)
The basketball court that is not only a court set within the old buildings, surrounded by terra-cotta roofs of the city but the view toward the Adriatic Sea is something exciting.
See more: https://www.justdubrovnik.com/2017/12/inside-the-city-walls-is-one-of-the-most-beautiful-playgrounds-in-the-world/82972/

5. UNUSED SPACE
5.3. Abandoned and Unfriendly Spaces

B

The revitalization of unfriendly spaces aims to re-organize and re-purpose transportation infrastructure material and design standards in different ways to shape a more beneficial public realm, where: Multi-modal paths (mobility infrastructure) + Landscapes (environmental infrastructure) + Lighting (Safety Infrastructure) = Quality urban realm and open access landscape, which support new forms of public life. The revitalization of abandoned and unfriendly spaces, such us under paths, incorporates significant environmental improvements by turning the under-highway landscapes into green storm water infrastructure to treat the vast amounts of runoff from the highway that would otherwise contaminate local waterways—maintenance areas for structural inspections double-function as public programming areas.

- **Revitalize and reuse** unfriendly spaces as a new model of shared public space through the public-private partnership;
- **Revitalize landscapes** under elevated highway viaducts - such areas commonly have detrimental characteristics, being inaccessible, foreboding, dark, loud, and interrupting the urban fabric.

3.5.3.1. Infra

3.5.3.2. Infra

INFRA (Boston, USA)
Revitalization landscapes under elevated highway viaducts aims to repair the breaks by introducing multi-modal connections and increase safety and comfort through new uses and lighting. The project incorporates significant environmental improvements by turning the under-highway landscapes into green storm water infrastructure to treat the vast amounts of runoff from the highway that would otherwise contaminate local waterways. Visitors descend into The Bentway at Strachan Gate via an open-air amphitheater, with 250 seats. Moreover, they can enjoy performances there or on an adjacent lawn that can accommodate another 500 people.
See more: https://www.archdaily.com/911262/infra-space-1-landing-studio

THE BENTWAY (Toronto, Canada)
The multifunctional space is an expression of Toronto's unique creative energy. It serves as an example of how the re-use of infrastructure can support new forms of public life as well as a vibrant public place where visitors can experience a diverse mix of activities and programs. Visitors descend into The Bentway at Strachan Gate via an open-air amphitheater complete with washrooms and a green room, and bleachers to seat about 250. They can enjoy performances there or on an adjacent lawn that can accommodate another 500 people.
See more: https://www.thebentway.ca/

3.5.3.3. The Bentway

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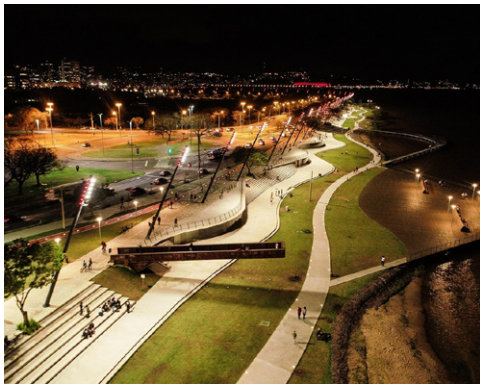
6. FLEXIBILE AND MULTIFUNCTIONAL SPACE
6.1. Large Open Space in Parks



3.6.1.1. Guaiba Orla Urban Park

3.6.1.2. Family Park

3.6.1.3. Paprocany Lake Shore

Large open spaces in parks encourage more active lifestyles by offering a variety of safe and appealing spaces that are well distributed throughout a neighborhood and are accessible and cater to the sporting and recreational needs of the community, as well as to multiple users. Moreover, there are many health benefits associated with access to public open space and parks.

- **Access and connectivity** - public spaces are well-defined and framed with fronting streets and buildings providing a synergy of uses and making the space a focal point of a larger area or neighborhood;
- **Sense of community** - public spaces must be attractive, safe, and engaging with a range of experiences for gathering, relaxation, and recreation;
- **Urban ecology** - public spaces must support the social and environmental well-being of the greater community. They inherently promote health and habitat by helping clean and filter the air and water, keep places cooler, and contribute to community resilience by acting as green infrastructure;
- **Enhanced social outcomes** – encourages social interaction, improves social networks and social capital, increases community cohesion and pride, safer communities.

GUAIBA ORLA URBAN PARK (Porto Alegre, Brazil)
An example of urban and environmental regeneration that positively affects the quality of life, as well as generating social, economic, and environmental systemic effects. The park is well connected to the urban network, being easily accessible to pedestrians, cyclists, and public transport. It is an integration project that brings elements of the natural and built environments, allowing people to meet and enjoy this space, equipped with recreation and sports areas.
See more: https://www.metalocus.es/en/news/a-park-riverbank-guaiba-orla-urban-park-jaime-lerner-arquitetos-associados

FAMILY PARK (Quinta Norma, Chile)
Family Park, is seen as a sustainable urban public space intervention. The main objective is to value the banks of the Mapocho river and rehabilitate degraded industrial area that are now integrated across the water of the channel.
See more: https://www.archdaily.com/794810/padre-renato-poblete-river-park-boza-arquitectos

PAPROCANY LAKE SHORE (Tychy, Poland)
Remodeling of the recreational area at the Paprocany lake is another project focused on exposing values of the landscape and expanding recreational offer for all users.
See more: https://www.archdaily.com/775301/paprocany-lake-shore-redevelopment-rs-plus

DOMINO PARK (New York, USA)
Place reclaimed from the industry to form a public waterfront focused on activity. Domino Park represents a public open space for local residents, while honoring and celebrating its industrial working waterfront history.
See more: https://www.dominopark.com/

6. FLEXIBILE AND MULTIFUNCTIONAL SPACE
6.2. Wide Sidewalks

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The public sidewalk should be accessible to all. Thus, sidewalks can play a crucial role in making the urban experience more enjoyable and inspiring. Users need clear information so that they can help both orients themselves and understand the rules of particular sidewalks. Vibrant, inviting sidewalks can also facilitate social interaction, further encouraging the use of public spaces.

- **Improving the flow -** a common reason for changing the balance of given street space is to provide more room for pedestrian movement and all types of movement, including jogging and running, cycling and skating - to allow users to select their way of move without bumping into others;
- **Providing space for pedestrian amenities** - sidewalks are not just thoroughfares for pedestrians; they function as social places where people gather to talk or meet friends, to stroll and window shop, or to watch others pass by.
- **Making it easier to cross the street** - allow users to cross the street as freely as possible is essential because there are usually businesses and destinations on both sides of any commercial road.

3.6.2.1. Bostanlı Footbridge & Sunset Lounge

3.6.2.2. New Waterfront of Thessaloniki

3.6.2.3. New Waterfront of Thessaloniki

BOSTANLI FOOTBRIDGE & SUNSET LOUNGE (Izmir, Turkey)
The architectural interventions, have generated a new, integrated coastal attraction together, where Bostanlı Creek flows into the bay, on a very special and unique spot due to the geometric form of the coastline, and the urban memory possessed. The bridge goes beyond being an infra-structural urban element which is solely used for passing through, and defines a public leisure and attraction point in a sensitive relation with its environment.
See more: https://www.studioevrenbasbug.com/

NEW WATERFRONT OF THESSALONIKI (Thessaloniki, Greece)
A linear place with relatively limited depth and big length, a fact that gives it the characteristics of a "front", of a thin layer, inserted on the difficult and challenging limit between land and sea, between natural and constructed landscape. The sea background of the gulf of Thessaloniki, constitutes an amazing scenery, where the ephemeral and mutable elements, create a different atmosphere each time.
See more: https://archello.com/project/redevelopment-of-the-new-waterfront-of-thessaloniki

OXFORD STREET (London, UK)
Transformation of the Oxford Street into a pedestrianized boulevard.
See more: https://www.london.gov.uk/press-releases/mayoral/oxford-street-transformation-plans

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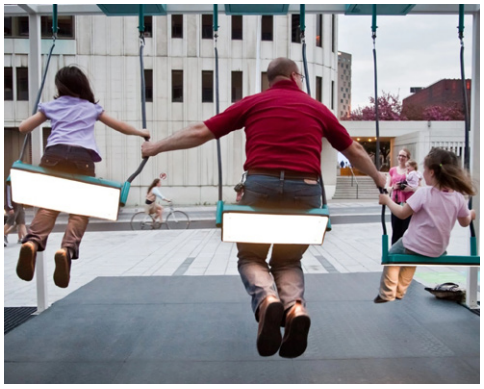
6. FLEXIBILE AND MULTIFUNCTIONAL SPACE
6.3. Play Areas Without Borders

3.6.3.1. Impulse

People use public spaces and play in various ways according to their interests and abilities, and enjoy different forms of play at different times and places. Game is what kids and young people do in their own time, for their reasons, which allow them to develop a sense of well-being, as well as their emotional responses and improves their interpersonal skills.

- **The benefits** of an excellent public realm for children and young people are part of the benefits it gives the rest of society;
- **Play (open) spaces** must offer movement and physical activity with space and features that allow a range of energetic and strength building play experiences;
- Play (public) spaces should be the right places for **social interactions** enabling their users to choose whether and when to play alone or with others, to negotiate, cooperate, compete, and resolve conflicts;
- A play space close to **nature**;
- A play space where disabled and non-disabled children **play together.**



3.6.3.2. Musical Swings

3.6.3.3. Go vibrant

IMPULSE (Montreal, Canada)
Impulse is an interactive urban installation that renews itself for each different audience.
See more: https://www.quartierdesspectacles.com/en/media/lumino_2015-2016

MUSICAL SWINGS (Montreal, Canada)
Musical Swings is an urban interactive installation that stimulates human connections in public spaces. Imagined as a collective experience, the work invites people of all ages and backgrounds to make music together.
See more: https://www.dailytouslesjours.com/en/work/musical-swings

GO VIBRANT (Cincinnati, USA)
An interactive park where human movement causes things to happen, the park includes the world's largest outdoor foot piano, outdoor exercise equipment, an outdoor chess set, and an interactive water feature.
See more: http://govibrant.org/

BILLIE HOLIDAY (Hague, Netherland)
An organically shaped play hill with three 'heads', which curls around an existing tree like a stretched piece of elastic. Because of this addition the surroundings are redefined, focused on its neighbouring functions like the residential care complex and the houses.
See more: https://worldlandscapearchitect.com/billie-holiday-park-the-hague-netherlands-carve/

6. FLEXIBILE AND MULTIFUNCTIONAL SPACE
6.4. Active Landscape and Challenging Play Environment

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People appreciate the qualities of nearby public spaces (natural and urban), which are related to the physical landscape character of designed landscapes. Most of us, as we think about our childhoods, will find that our play as children involved challenges and risks. Challenging environments are valued experiences for children and young people and should not be left out. Moreover, by providing children with opportunities to participate in challenging environments, we provide the opportunity for the development of valuable life skill learnings in the process such as making choices, problem-solving, measured risk-taking, and navigating their way socially and emotionally in group situations, as well as using ideas and imagination while expressing motivation and perseverance.

- **An innovative and interactive landscape** need to provide a safe environment for kids to play freely with challenges that test and teach them new skills; Such places that offer exciting and challenging play activities entice users to participate and be active and fully reap the benefits of play.

3.6.4.1. Drapers Field

DRAPERS FIELD (London, UK)
Drapers Field was primarily used for football. This is an example of regeneration and intersection of new and old. The main aim for the park was to create a place of sport and play on the route to school at Chobham Academy. In addition to improved sport facilities, the innovative landscape encourages informal play and other active uses such as a cycling route which can also be used for cycle training.
See more: ttps://kland.co.uk/projects/drapers-field/

3.6.4.2. Play Landscape

PLAY LANDSCAPE (Beringen, Belgium)
The adventure mountain aims to breathe new life into the monumental coalmining site in Beringen, the largest industrial-archeological site in Flanders. The spectacular scale of this site – regarding both the height of the terril as well as its industrial heritage - is unique in the relatively flat surrounding landscape of Limburgian-Flanders. The intervention is a landmark on a large scale, but through its playable character it also reflects the small scale of a child.
See more: : http://landezine.com/index.php/2016/10/play-landscape-be-mine-beringen-be-by-carve-and-omgeving/

ACTIVITY LANDSCAPE (Harboore, Denmark)
A model for a low-cost sports hall that offer an outdoor and sheltered informal space that playfully encourage activity and recreation, all day and all year around.
See more: ttps://www.ja-ja.dk/project/activity-landscape/

3.6.4.3. Play Landscape

PARQUE 6 DE JUNIO (Quito, Ecuador)
The park design process had the participation of the community, who were called to different activities to establish the problem and needs of the space to intervene. Socializations, exploratory marches and workshops were part of the activities that were carried out prior to the construction of this public space, these in turn generated a starting point of appropriation of the project.
See more: https://www.plataformaarquitectura.cl/cl/906820/espacio-publico-seguro-parque-6-de-junio-alcaldia-de-quito-epmmop

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6. FLEXIBILE AND MULTIFUNCTIONAL SPACE
6.5. Multipurpose Areas

3.6.5.1. I love street

3.6.5.2. Seoullo Skygarden

3.6.5.3. Seoullo Skygarden

Designing and implementing multi-functionality within communities creates spaces that have multiple purposes. Due to their access to diverse uses in one place, these spaces can contribute to a community's vitality. I love Street is an example of a successful multi-functional space as a permanent intervention, which explores how architecture contributes to urban regeneration by playing both decorative and functional roles in public spaces. The project was conceived in a participatory process.

- By nature, fine **public spaces that fit into the needs** and the ongoing changes of the users involve attention. Being open to the need for change and having the design flexibility to adopt that change is what builds a remarkably public space.

I LOVE STREET (Gwangju, South Korea)
These interventions are a step in refocusing attention on abandoned areas of the city with the potential to transform them into more liveable and pleasant areas as they develop in time. That has led to multiple different pavements that can be used for sitting, painting, jumping on trampolines, and playing in the sand. By shaping these pavements in a series of letters, a true text appears, indicating people's love for many things through 'I LOVE'. At the same time, a neutral square space at the end of the text is maintained for everyone's personal use, and it can even be painted and adapted like a canvas.
See more: https://mooool.com/en/i-love-street-gwangju-folly-by-mvrdv.html

SEULLO SKYGARDEN (Seoul, South Korea)
It connects the city dwellers with the nature, offering the users the opportunity of experiencing the amazing views to the Historical Seoul Station and Namdaemun Gate. It is an educational arboretum and a nursery for future species.
See more: https://www.mvrdv.nl/projects/208/seoullo-7017-skygarden

CITY DECK (Green Bay, USA)
The deck creates both a flexible space for civic gatherings and has framed opportunities for new mixed-use development, infusing downtown with new life, 24/7.
See more: https://downtowngreenbay.com/go/citydeck

WATER SQUARE BENTHEMPLEIN (Rotterdam, Netherland)
Public Square with three basins, which collect rain water: two undeep basins for the immediate surroundings will receive water whenever it rains, one deeper basin re. When it's not raining the baisins are used as recreational spaces and a sport field.
See more: https://www.publicspace.org/works/-/project/h034-water-square-in-benthemplein

GATHERING PLACE (Tusla, Oklahoma, USA)
A solution to help break down social, racial, and class barriers.
See more: https://www.gatheringplace.org/

7. USING EXISTING INFRASTRUCTURE
7.1. Access to Professional Infrastructure

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Even though professional sports infrastructures such as stadiums, aquatic centres, tracks et cetera are built with public money, citizens can rarely use it. And however strict priority needs to be given to professional sportsmen using it, in times of lower occupancy, down season, or after the full capacity of infrastructure is not needed anymore, there should be public access to these sports grounds. This is especially stark issue in cities which decided to host major sporting events, such as world cups or Olympics. Huge infrastructure projects like these can be reprioritized to be used by the public, which can foster more physical activity and allow amateurs to train on professional-grade sports grounds.

- Include **ways of public access** in the designs of newly commissioned professional grounds
- Set up **public access hours** in times of lower occupancy rates
- Retain **priority for professional** teams usage
- Invite citizens to **temporary events** on professional infrastructure
- Include long-term strategy for big infrastructure projects for sporting events to allow **public usage after the event** is finished

3.7.1.1. Turniej o złotą piłkę

3.7.1.2. London Olympic Park

3.7.1.3. Sydney Olympic Park

GOLDEN BALL TOURNAMENT (Polish: Turniej o Złotą Piłkę) (Warsaw, Poland)
Tournament organised on professional stadium to invite amateur teams to quality sports infrastructure.
See more: https://aktywnawarszawa.waw.pl/pl/imprezy-sportowe/gramy-o-zlota-pilke/

LONDON OLYMPIC PARK (London, United Kingdom)
Olympic grounds were redeveloped and open to public to enjoy after the 2012 Olympic games.
See more: : https://www.theguardian.com/uk-news/2014/apr/02/london-olympic-park-open-public

SYDNEY OLYMPIC PARK (Sydney, Australia)
Olympic facilities including an aquatic centre were opened to public after Sydney Olympic games.
See more: https://www.sydneyolympicpark.com.au

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7. USING EXISTING INFRASTRUCTURE
7.2. Access to School Infrastructure

3.7.2.1. DSU Trailblazers Stadium

3.7.2.2. Otwarte Boiska Bemowo

3.7.2.3. Szkolne boiska otwarte dla wszystkich

One of the most pressing issues with using existing infrastructure is the question of school sports infrastructure. As these are facilities built with public money, neighbourhood communities demand open access to them. On the other hand, school directors bring up rationale of their responsibility over the school property and possible responsibility for injuries inflicted on school's property. Cities try to mediate that by offering insurance opportunities and drafting district- or city-wide legislation to open school sports facilities. Temporary, bottom-up initiatives also spring up around the issue, especially during summer months when the school is closed anyway.

- Collaborate with local authorities to **overcome responsibility issues** in opening school infrastructure to the public
- Address **priority usage** on school sports grounds
- When designing new facilities make it a **joint venture** between the school and local community
- Set up **clear rules** on when and how is it possible to use school infrastructure to lessen the pushback from schools
- Offer **additional insurance** to schools to cover their risks, such as vandalism and accidents

DSU TRAILBLAZERS STADIUM (St. George, United States)
After the renovation, Dixie State University stadium was opened and made available for public use Monday through Friday in speecific hours. If an event is scheduled on the field or in the stadium where general public use of the track would interfere with the event, the track will not be available.
See more: https://eu.thespectrum.com/story/news/2018/05/21/trailblazer-stadium-track-now-open-public/630299002/

OPEN FIELD IN BEMOWO (Polish: Otwarte Boiska Bemowo) (Warsaw, Poland)
Long-lasting project opening school sport grounds to public in Warsaw's Bemowo district. Each year from April to July, several schools open their infrastructure to public use.
See more: https://ibemowo.pl/artykul/otwarte-boiska-wystartowaly/630906

SCHOOL FIELDS OPEN FOR ALL (Polish: Szkolne Boiska Otwarte dla Wszystkich) (Gdańsk, Poland)
Thanks to community pressure, school in Oliwa district of Gdańsk opened their sport facilities to the public. Any concerns where ironed out with the mediation from the city councils and the project proved to be very popular.
See more: https://dziennikbaltycki.pl/na-to-czekano-w-gdanskiej-oliwie-szkolne-boiska-sa-otwarte-dla-wszystkich/ar/c2-14266911

7. USING EXISTING INFRASTRUCTURE
7.3. Community Sport Centres

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Whether sport facilities for neighbourhood communities or city-wide network of sport centres, these facilities play a vital role in engaging people in various types of physical activities. Located mostly in post-soviet countries, these public entities adapt and improve infrastructure built in the socialist states to offer sports grounds to citizens. By keeping them open to public and affordable, they fulfil the mission of bringing physical activity to more people.

- **Donate old sports infrastructure** to city-run entities, instead of decommisioning it, so it can bring much needed affordable sports facilities
- Engage in **variety of events** held in the community sport centres, to promote physical activity and market them among the citizens
- **Adapt places** not meant for sports to serve as a community sport centres

3.7.3.1. Dzielnicowe centra sportu

DISTRICT SPORTS CENTERS (Polish: Dzielnicowe Centra Sportu) (Gdańsk, Poland)
City's sports authority runs several district sport centers, where it provides infrastructure and organizes free sport events for citizens on all activity levels.
See more: https://www.gokf.gda.pl/Home/DCS/ID=-1?D=7

ACTIVE WARSAW (Polish: Aktywna Warszawa) (Warsaw, Poland)
Public entity in charge of running sports centers, skateparks, ski slope and organising public events for Warsaw citizens. Community sports centers inherited from the socialist times now offer affordable access to sport in several districts of the city.
See more: https://aktywnawarszawa.waw.pl

CHESS PALACE TBILISI (Tbilisi, Georgia)
Georgian chess federation adopted a pavilion in a park to promote chess, organise tournaments and train kids in its premises.
See more: http://www.gcf.org.ge/en

3.7.3.2. Aktywna Warszawa

3.7.3.3. Chess Palace Tblisi

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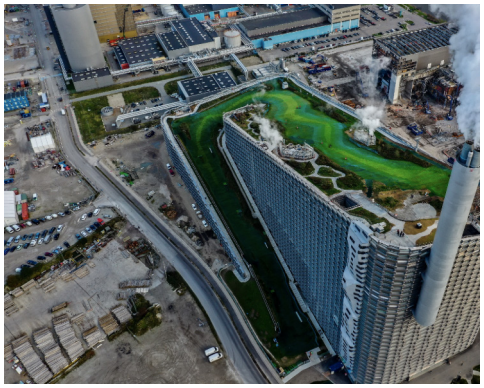
8. CLIMATE AND COMFORT
8.1. Climate mitigation



3.8.1.1. CopenHill

Be it cold, hot and arid or monsoon influenced, climate can be a major detrimental to activity levels in cities. Their citizens are much less likely to actively spend time outside in public spaces. Smart cities employ different tools to reduce the heat-island effect, bring people outside during heavy rains or in the cold.
Another related issue that cities need to face is climate change. Newly built infrastructure needs to be resilient enough to serve not only current needs, but also prepare for possibly harsher climate in the future.

- Design public space to be used **all year round**
- Employ clever cover and canopies for either **shading or rain shelter**
- Look to technology to use **materials which can adapt** to weather conditions
- Consider **temporary tools** to convince people that it is possible to be active outside in different climates without huge costs

3.8.1.2. Cool Pavements LA

3.8.1.3. Covered Walkways

COPENHILL (Copenhagen, Denmark)
Denmark's flat terrain and mild climate did not stop the designers in bringing the skiing experience to its citizens on the sloped roof of a waste to power plant.
See more: https://www.copenhill.dk/en

COOL PAVEMENTS (Los Angeles, United States)
City council decided to cover several city blocks' pavements with an engineered reflective material to cool down neighbourhoods.
See more: https://www.latimes.com/local/lanow/la-me-cool-pavement-climate-change-20190425-story.html

COVERED WALKWAYS (Singapore)
Singapore responds to the question of extending its public life throughout the rainy season, by building several covered paths, streets and walkways.
See more: https://www.lifebetweenumbrellas.ca/rainfriendly-public-spaces/2019/2/24/rainy-spaces-1-vancouver-meet-singapore

8.1.4. Covered Walkways

8. CLIMATE AND COMFORT
8.2. Adverse weather mitigation

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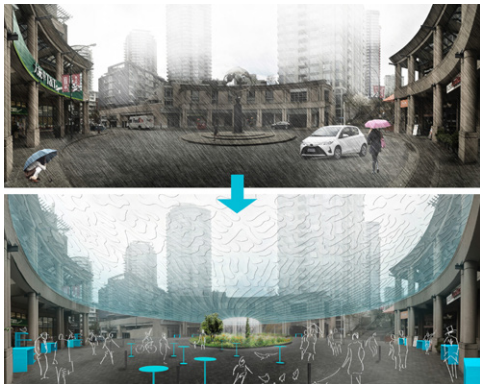
Even with a mild, warm climate motivating citizens to be active outside, activity levels may drop during periods of rain, strong wind or sudden heatwaves. If the region of intervention is affected by one of those, additional points need to be considered during the design process. These include shelters, surface types and programmatic focus on sports and activity enjoyable in less than ideal weather conditions.

- Include **shelter** or look for **natural cover** (with trees or existing infrastructure) in windy or rainy areas.
- Shelters can do double duty as shading during heatwaves
- Make sure the surface of sports ground is **usable when wet**
- Attract people to public space on a rainy day by clever design
- Make life easier for people already adept in **all-weather activity**, like bike-commuters and runners

3.8.2.1. Karen Blixens Plads

3.8.2.2. Activity Landscape



3.8.2.3. Overhead Watershed

KAREN BLIXENS PLADS (Copenhagen, Denmark)
Lifted parts of the park provide a rain cover for bike parking, encouraging the already bike-savvy Danes to use the bike more regardless of weather.
See more: https://www.archdaily.com/926901/karen-blixens-plads-public-square-cobe

ACTIVITY LANDSCAPE (Harboore, Denmark)
A design of a hybrid between a park and a hall. Encourages activity in all weather conditions by making it a semi enclosed landscape.
See more: : https://www.archdaily.com/790858/activity-landscape-jaja-architects

OVERHEAD WATERSHED (Vancouver, Canada)
As a part of the„Life between umbrellas" project, urban plaza in Vancouver is covered with a translucent canopy for people to play inside during the rain, showing off how a simple change like that can bring life into places normally desolated because of the weather conditons.
See more: https://www.lifebetweenumbrellas.ca/a23-overhead-watershed

B

8. CLIMATE AND COMFORT
8.3. Taking Advantage of the Seasons

3.8.3.1. Piscine du Rhone

3.8.3.2. The Rideau Canal Skateway

3.8.3.3. Jaworznickie Planty

Since nowadays so many people choose the place to live based on a vibrant urban life, modern cities cannot afford to be lifeless for a quarter of the year, be it due to excessive heat, cold or rain. The exact response ranges from area to area, but smart cities create public spaces that are enjoyable all year round.

One of the best tools in tackling seasonal conditions are temporary interventions. If a public space is catered to be used during a specific season, it is strongly advised to use temporary solutions, not to occupy precious space during the months when it's not used.

- Make sure public spaces promote **activity in all seasons** to create a vibrant city
- Consider a natural approach of promoting **water sports** in the summer and **snow/ice sports** in the winter
- Make use of **temporary solutions**, to change the activities offered by a place from season to season
- Focus on a **rich programme** during the winter – exciting events can serve as a trailblazer for activity in the cold months

PISCINE DU RHONE (Lyon, France)
Municipal pool offers cool in the hot summer and is also heated to 28 degrees during the winter which encourages activity regardless of season**.**
See more: https://eu.thespectrum.com/story/news/2018/05/21/trailblazer-stadium-track-now-open-public/630299002/

RIEDEAU CANAL SKATEWAY (Ottawa, Canada)
Every winter since the 1970s, the Rideau Canal transforms into a 7.8-km long skateway. It holds the Guinness Book of World Record for largest natural skating rink and brings thousands of citizens out and active in the winter.
See more: https://ibemowo.pl/artykul/otwarte-boiska-wystartowaly/630906

JAWORZNICKIE PLANTY (Jaworzno, Poland)
A recessed water park built on the former industrial site encourages play and activity during hot summer months. Since it was targeted at children, artificial hills provide a sense of safety.
See more: https://dziennikbaltycki.pl/na-to-czekano-w-gdanskiej-oliwie-szkolne-boiska-sa-otwarte-dla-wszystkich/ar/c2-14266911

C: AMENITIES

9. AMENITIES FOR RUNNERS
9.1. Network for Running

Although runners are using existing infrastructure such as sidewalks and parks, it is safer, more convenient and enjoyable for them, for the city to offer a system of dedicated trails. What is more, the routes should be carefully planned and form a cohesive network, to allow for convenient access, enough of variety and further enhancement of the running experience. A well maintained, accessible running track network is a necessity for a city which takes its efforts in promoting running culture to its citizens seriously.

- When expanding the network of running tracks think not only about the circuits, but also about **connecting runs** which make it convenient to jog to the destination run
- Think of an **adequate network** as a thing greater than sum of its parts – single tracks or circuits
- Carefully consider the placement of the running tracks, try to place them in areas already popular with runners or conduct a thorough research when designating a new area
- Make the network go through various residential neighbourhoods for **easy access**
- Offer runs with **varying gradients** as some runners prefer to run on flat and others like to include incline runs in their training
- Distance markers, coloured signs and maps are a welcome addition for runners
- Make sure tracks are lit up to allow for **running in the night**

3.9.1.1. Atlanta Beltline

3.9.1.2. Parque 6 de Junio

3.9.1.3. Marked routes in Kabaty forest

ATLANTA BELTLINE (Atlanta, United States)
Apart from being a headline-grabbing public space project, the Atlanta Beltlinee includes a network of 33 miles of urban trails, offering a running environment encompassing many districts.
See more: https://beltline.org

PARQUE 6 DE JUNIO (Mexico City, Mexico)
Award winning restoration dramatically increased the reeceeption and usage of the park. A simple system of running paths in and around the park was introduced, which attracted many sports- men and women.
See more: https://www.asla.org/awards/2008/08winners/179.html

ROUTE NETWORK IN KABATY FOREST (Warsaw, Poland)
System of running trails in a forest adjacent to the city core of Warsaw, complete with maps and distance markers.
See more: https://www.haloursynow.pl/artykuly/nowe-trasy-biegowe-powstaly-w-lesie-kabackim,6845.htm

C

9. AMENITIES FOR RUNNERS
9.2. Movement Separation

3.9.2.1. Underline Miami

3.9.2.2. RunTrack

3.9.2.3. Margaret Island Running Track

Runners have a very peculiar type of movement – if they run in recreation areas, where pedestrians prefer to take a stroll, they often find themselves zigzagging in between them on the path. If they choose to run on communication areas, such as sidewalks or roadside they find themselves overtaken by cars, bikes and other commuters. Therefore, proper separation of running tracks is often cited by the runners by the most requested improvement. On a dedicated track, runners should be given unconditional priority and be safeguarded from the traffic on the one hand and pedestrians on the other.

- **Separate** running tracks from traffic and pedestrian communication
- If it is not possible to physically separate a running track, try to mark it with a **coloured surface or signs**
- When placing a track roadside make use of **available shelter**, think polycarbonate sound screens or trees
- Create **separate trails** for runners and mountain bikes in the forests
- Make sure runners don't have to stop at traffic lights
- Ensure **safety** of both parties when running tracks cross with other communication modes

UNDERLINE MIAMI (Miami, United States)
Runners in this linear park running underneath city's rail transit system, enjoy separated tracks from cyclists and pedestrians.
See more: https://www.curbed.com/2018/10/19/17999978/miami-park-underline-transportation-metrorail

RUNTRACK (Świeradów-Zdrój, Poland)
City was faced with runners using forest routes meant for mountain-bikes, creating potentially dangerous situations, so it built dedicated running tracks to separate the two groups.
See more: https://www.wroclaw.lasy.gov.pl/aktualnosci/-/asset_publisher/1M8a/content/runtrack-czyli-po-polsku-sciezka-biegowa

MARGARET ISLAND RUNNING TRACK (Budapest, Hungary)
In a general recreation area of the Danube river a track dedicated only to runners was built, with specific running surface and amenities.
See more: https://welovebudapest.com/en/article/2015/3/6/the-running-track-at-margaret-island-is-ready-for-spring-fitness

9. AMENITIES FOR RUNNERS
9.3. Tracks

When looking on data maps pulled from running tracking applications it is very apparent that runners prefer to jog in parks or next to bodies of water. This is to be expected as both parks and waterfronts offer one of the best environments for runners – free from traffic, with fresh air and usually great scenery. But there is more to a running environment than that – clever designs like elevated running tracks, rooftop tracks start to spring up in cities around the world and quite literally take running to a new level.

- Make use of city's **parks and green areas** to expand running tracks network
- If there's one quick takeaway, it's that people like to **run by the water and in parks**
- Include separated running tracks in waterfront renewals
- Look for possibilities in **elevated tracks** in dense cities
- Think about **reusing infrastructure** to offer potentially unique scenery

3.9.3.1. School rooftop running track

SCHOOL ROOFTOP RUNNING TRACK (Tiantai, China)
A school in a densly urbanized eenvironement faced an issue of lack of space for sports infrastracture and resolved it by putting a running track on its rooftop.
See more: https://archinect.com/news/article/107979560/chinese-school-puts-running-track-on-its-roof

THE WHITE COLLAR FACTORY (London, Poland)
An office tower in London was designed with a running track on its rooftop, letting the workers enjoy a panoramic view of the city, even during a lunch-break jog.
See more: https://www.standard.co.uk/news/london/london-office-block-gets-rooftop-running-track-on-16th-floor-a3627036.html

THE 606 (Chicago, United States)
Build on old freight train tracks that date back more than a century, the park offers a bike path, rubberized jogging track, and outdoor art space with sweeping views of the city.
See more: https://www.the606.org

3.9.3.2. The white collar factory

3.9.3.3. The 606

3.9.4.1. 5k Circuit

Runners are often prone to injury, and most of them can be attributed to running on bad surface. Hard concrete puts more pressure on the joints and does not give back the energy of the runner. Adequate running surface is safeguarding runners from injuries, makes training more enjoyable and is generally a good tool to promote the running culture. Polyurethane, rubberised or TARTAN surfaces are taking the place of park alleys made of broken concrete.
Other surfaces which can benefit runners are reflective layers on running tracks that can cool down the track and make it feasible to run in hotter temperatures.

- Look for international guidelines to choose a good running surface
- Team up with local academia to develop proficient surfaces
- Consider adding **strips of running surface** to existing paths if it is not possible to build a separated track
- Look to **innovation in materials** to take advantage of cooling surfaces

3.9.4.2. Margaret Island Running Track

3.9.4.3. Na Zdrowiu Park running track

5K CIRCUIT (Valencia, Spain)
Valencia's runners foundation has teamed up with the local Institute of Biomechanics to create a 5km running circuit with specifically developed surface.
See more: https://www.valenciaciudaddelrunning.com/en/the-world-of-running-enjoys-all-the-advantages-for-runners-in-the-5k-circuit-turia-garden/

MARGARET ISLAND RUNNING TRACK (Budapest, Hungary)
Whole running network on the island is covered with a rubberised surface adhering to international regulations.
See more: https://welovebudapest.com/en/article/2015/3/6/the-running-track-at-margaret-island-is-ready-for-spring-fitness

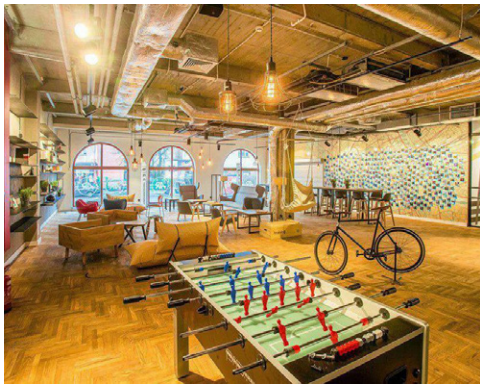
NA ZDROWIU PARK RUNNING TRACK (Łódź, Poland)
Participatory budget project to add a strip of polyurethane surface to paths in the park to make them more suitable for runners.
See more: https://lodz.wyborcza.pl/lodz/1,35136,20637359,pierwsza-w-lodzi-sciezka-biegowa-powstaje-w-parku-na-zdrowiu.html

9. AMENITIES FOR RUNNERS
9.5. Supporting facilities

Even though running is a type of activity that in its simplest form doesn't require much in terms of infrastructure and supporting facilities, runners can still benefit from amenities such as storage room, showers, changing rooms or relaxation areas. These qualities of life improvements can play a major role in promoting physical activity and is especially helpful in bringing in people from further neighbourhoods.

- Create the facilities in spaces which are already considered good running areas or make a thorough research if designating a new area for running
- Research the **needs of the runners** in the area of intervention
- Make sure the facilities have **adequate opening hours**
- Place the facilities in **convenient location** for transit, as most people using them will be people who arrived by car or public transport
- Tie in supporting facilities with the running communities with a **community centre approach**
- Consider placing **temporary facilities** during big runs and races

3.9.5.1. Runners' stations



3.9.5.2. Adidas Runners Warsaw

3.9.5.3. Blue Trailer Lockers

RUNNERS' STATION (Tokyo, Japan)
Runners station is a commercial entity that along running a runners' shop, provides rental services, a locker space, a clean shower room, and also a relaxation area.
See more: https://www.fitjapan.com/runners-station-kojimachi/

ADIDAS RUNNERS WARSAW (Warsaw, Poland)
Runners community centre with storage, changing rooms and common relax area. It is the rally point for all the running events organised by the community and is open and free to use for all runners.
See more: https://warszawa.wyborcza.pl/warszawa/7,54420,21297638,adidas-runners-nowe-miejsce-dla-biegaczy-na-solcu.html

BLUE TRAILER LOCKERS (United States)
Founder of the company faced the issue of not having a place to store their belongings for the duration of the Boston Marathon, so they started a company which provides portable lockers for running events and races.
See more: https://www.bostonmagazine.com/news/2014/07/24/blue-trailer-expands-locker-room/

C

10. AMENITIES FOR CYCLING
10.1. Bike Parking Stations

3.10.1.1. Bike Parking Main Station Karlsruhe

Bike parking can supplement transit ridership both in bustling urban corridors and at regional stops and stations, and can replace time- and space-consuming on-bus bicycle racks. Bike parking elements can expand transit sheds, enhancing access to stop-adjacent destinations, and boosting intermodal connectivity.

- Bicycle parking must be **integrated** into all planning processes;
- Bicycle parking **strategies and approaches to implement bicycle parking** - starting from identifying the key implementers, structuring the program, identifying priority locations for bike parking.

3.10.1.2. Bicycle Parking

3.10.1.3. Bicycle Parking

BICYCLE PARKING MAIN STATION KARLSRUHE (Karlsruhe, Germany)
For the past 25 years, the area was reserved for cars and busses, adding the needed infrastructure for individuals coming to the main station. The graphics, inspired by the metro maps of Karlsruhe, guide the biker from the entrance to the chosen place for locking the bike. The bright and colorful garage fits up to 670 bikes – not only citybikes and cruisers, but also cargobikes, bikes with trailers and e-bikes. A reserved room for commuting bikers offers a modern locker-room with space to get changed and fresh water. A minimal workshop open to all bikers, offers professional tools to maintain the bikes.
See more: https://estatemag.io/projects/bicycle-parking-main-station-karlsruhe-tafkal/

BICYCLE PARKING (Utrecht, Netherland)
The world's biggest bicycle parking is the centrepiece of an urban redevelopment that reconnects the enlarged railway station to the historic city centre of Utrecht. Underneath the elevated square, a three-story bike park for over 12,500 bicycles announces a future of sustainable mobility.
See more: https://www.utrecht.nl/city-of-utrecht/mobility/cycling/bicycle-parking/bicycle-parking-stationsplein/

OOSTENDE STATION (Ostend, Belgium)
The station square opens towards the city. It is a large space on the harbour. It integrates bus stations, tramways, bicycle parking and becomes a true multimodal platform for users. The bicycle parking is now underground with a series of rou
See more: http://www.belgianrail.be/en/stations-and-train/search-a-station/13/oostende.aspx

10. AMENITIES FOR CYCLING
10.2 Bike Parking Racks In Public Spaces And Near Buildings

Designing public spaces without considering the green circulation and bike parking racks is no longer an option nowadays. Accessibility for the free traffic of cyclists must also be accompanied by adequate security conditions, incorporating these devices in the best possible way to parks, public buildings, sidewalks, parking lots, and the streetscape as a whole.

- **Well-organized** bicycle parking boosts cycling.;
- Indirectly, **bicycle parking contributes to boosting the city center attractiveness**. In combination with a cycling network, it improves accessibility for cyclists. It should be part of the general parking policy, aiming for a modal shift towards public transport and cycling.;
- Large numbers of informally **parked bicycles** should not be read as a problem but as a healthy sign demand for more and better cycle parking provision.

3.10.2.1. Karen Blixens

KAREN BLIXENS PLADS PUBLIC SQUARE (Copenhagen, Denmark)
An open and welcoming urban space is an innovative, spectacular and multi-functional architectural design that accommodates and promotes green transportation, climate change adaptation, and biodiversity. The innovative and unique design has room for 2,000 bicycles.
See more: https://www.cobe.dk/place/karen-blixens-plads

3.10.2.1. Karen Blixens

COFFEE AND BIKES (Delft, Netherland)
Parking facility at the heart of the TU Delft campus accommodates 2,100 bicycles and is combined with a bicycle workshop and a coffee facility. The main challenge in the design brief was to transform the large bicycle storage into an attractive hangout spot. This was achieved by positioning the relatively small coffee bar and workshop into an elongated and transparent volume on a green slope, relating to the central TU Delft square on one side and the bicycle storage on the other, underneath a big bicycle deck. This position gives the building the appearance of a pavilion rather than storage.
See more: https://campusdevelopment.tudelft.nl/en/project/coffee-bikes/

3.10.2.3. Coffee and bikes

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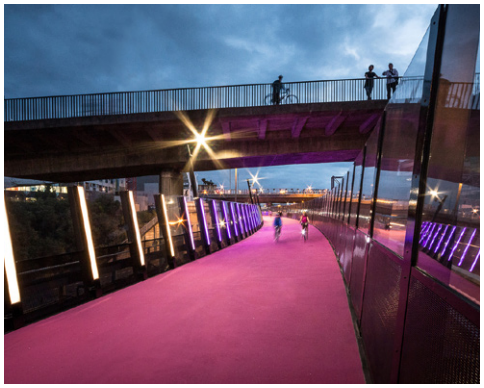
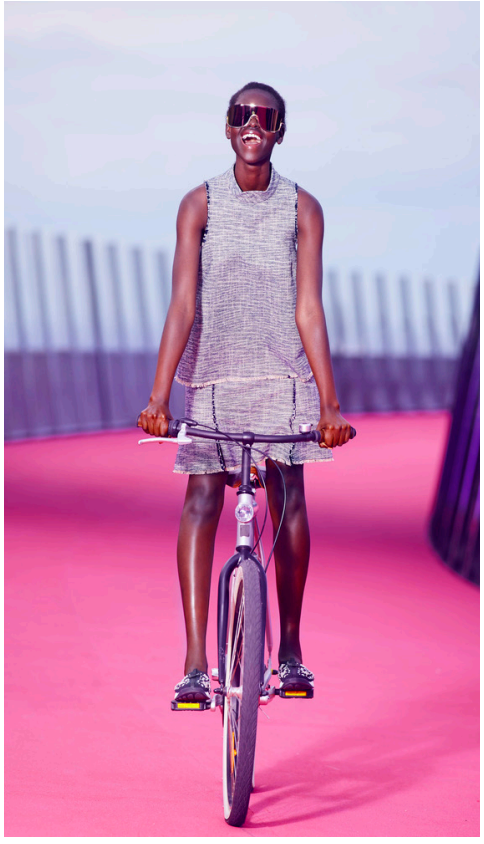
10. AMENITIES FOR CYCLING
10.3. Separating Speeds



3.10.3.1. Light Path AKL

The configuration of a bike lane requires a thorough consideration of existing traffic levels and behaviours, adequate safety buffers to protect bicyclists from parked and moving vehicles, and enforcement to prohibit motorized vehicle encroachment and double-parking. Bike Lanes may be distinguished using colour, lane markings, signage, and intersection treatments.

- **Connectivity and continuity** of the linear path that generates an unobstructed, continuous separated paths for pedestrians and cyclist;
- **Support cycling** with appropriate traffic policies and legislation, expanded networks for cycling, safe and attractive cycling routes and trails that connect people to local destinations, access to city bicycles for short trips and bicycle storage areas in public places;
- **Build separate tracks** for pedestrians, cyclists and cars on busy streets;
- **Provide clear signage** about road traffic patterns to help cyclists, pedestrians and drivers avoid injuries and learn to respect each other's routes.



3.10.3.2. Light Path AKL

LIGHT PATH AKL (Auckland, New Zealand)
Light Path AKL transforms six hundred meters of redundant highway infrastructure into a dynamic cycleway completing a vital link in Auckland's inner city cycle network.
See more: http://landlab.co.nz/light-path

CYCLING THROUGH THE TREES (Hechtel-Eksel, Belgium)
A new cycle/pedestrian path that gently rises above the trees and descends again to give exceptional views and encourage more physical activity.
See more: https://www.atlasobscura.com/places/cycling-through-the-trees

DENMARK PAVILION, SHANGHAI EXPO (Shanghai, China)
The pavilion is a big loop on which visitors ride around on one of the 1,500 bikes available at the entrance, a chance to experience the Danish urban way.
See more: https://www.dezeen.com/2010/05/01/danish-pavilion-at-shanghai-expo-2010-by-big/

MELKWEGBRUG (Purmerend, Netherland)
The bicycle bridge coils over the water to create sufficient length to limit the angle of inclination of the bicycle path. The section that opens is divided diagonally and consists of two revolving bridge decks.
See more: https://archello.com/project/melkwegbrug

HOVENRING, CIRCULAR CYCLE BRIDGE (Eindhoven, Netherland)
The cable-stayed bridge offers cyclists and pedestrians an exciting crossover, with its impressive 70-metre pylon, 72 metre diameter, thin deck and conspicuous lighting.
See more: https://ipvdelft.com/projects/hovenring/

11. AMENITIES FOR SKATERS
11.1. Understanding Skating Typologies

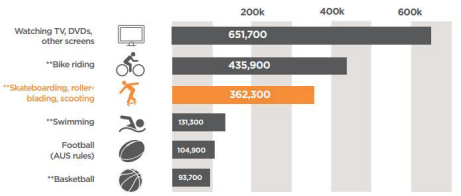
According to SKATE MELBOURNE PLAN 2017–2027 skaters can be divided into 4 categories of different spatial needs and cultures:

- **Street style skaters** - use public spaces such as plazas, forecourts, squares, streets and footpaths. They use typical urban street furniture such as kerbs, benches, rails and walls to ride, grind and slide on
- **Park style skaters** - use dedicated skate parks and spaces designed for skating. Much like street skaters. These skaters use skate park obstacles such as fun-boxes, manual pads, banks to ride, grind and slide on.
- **Transitional style skaters** (also known as bowl or vert skating) - utilise dedicated skate parks with transitional and bowl elements.
- **Longboarders** - utilise public spaces such as wide park paths, streets and footpaths. These skaters do not generally grind or slide on furniture.
- **Others:** Quad skating or rollerblading, Freestyle skating, Slalom and downhill skating, BMX, etc.

It's important to recognise types of skating while designing skateable and skate-deterrent infrastructure. It is also a must needed to provide **skate infrastructure for skaters of different levels: from beginners to advanced performers.**

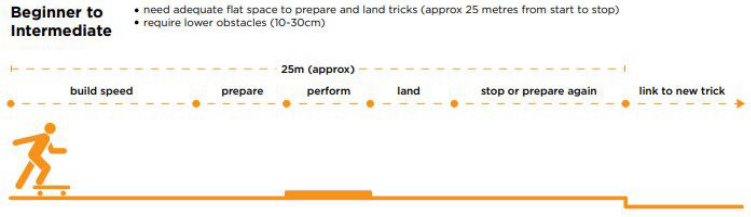
SKATE MELBOURNE PLAN (Melbourne, Australia)
Skate Melbourne Plan acknowledges skating as a sport and a valuable part of the city's culture and provides guidelines for design of skating facilities that would attract skaters though at the same time would not disturb other inhabitants.
See more: https://participate.melbourne.vic.gov.au/skate

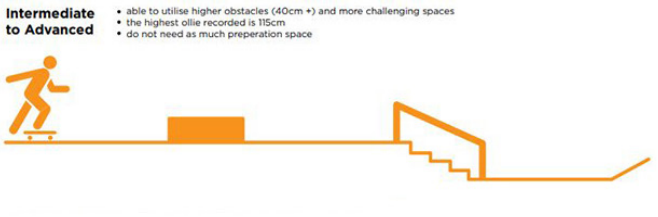
ED BENEDICT SKATE PLAZA (Portland, USA)
This skate plaza was designed collaboratively with local skaters and artists. Besides providing an aesthetically pleasing skateable space, the final design also enhanced biodiversity, ecology and storm water management in the area. The plaza features infrastructure of different difficulty levels, both for beginners and advanced skaters.
See more: https://skateportland.org/ed-benedict-skate-plaza



3.11.1.1. Children (aged 5–14) participation in recreational, cultural and leisure activities in Victoria

3.11.1.2., 11.1.3. Gaps, ledges, stair sets, rails and an assortment of urban features await street skaters of all abilities at Ed Benedict Street Plaza.





3.11.1.4. Diagrams from Skate Melbourne Plan showing different design configurations based on user experience level.

11. AMENITIES FOR SKATERS
11.2. Location Assessment Criteria

3.11.2.1. Lemvig Skate Park

3.11.2.2. The Bentway

3.11.2.3. Charlotte Ammundsens Plads

Locating suitable locations in a capital city with limited public space with increasing population and density, it is complex. In order to locate and assess suitable locations for skating activities, many councils and strategic planners develop an assessment criteria. This can help identify areas that are accessible, safe and inclusive whilst minimizing potential conflict.

- **Choose spaces, where land use or materials do not conflict with skating activities:** Avoid culturally significant sites (like memorials, burial sites), residential buildings (residents often oppose to noise, especially in the evening hours), direct interaction with glass facades and key thoroughfares (pedestrian, cyclist and vehicle).
- **Use underutilised space** – majority successful skate spaces are constructed in otherwise disused areas (e.g. loud spaces under expressways)
- **Appropriate site in provision gap areas** (based on existing skate and youth oriented spaces), preferably connected to other skate, youth or recreational facilities.
- **Site safety:** site should be well-lit at all times of the day and night, to provide safety for all ages and when traveling to and from the proposed venue.
- **Site inclusiveness and accessibility:** close proximity to public transport hubs, proximity to other activity areas (e.g. other active uses or recreational facilities, loud activities, youth uses,), proximity to food and services.

LEMVIG SKATEPARK (Lemvig, Denmark)
Urban plaza connected with skate park designed in participatory design process. It was constructed on a disused land near waterfront, a place chosen by residents in participatory process.
See more: https://www.archdaily.com/470077/lemvig-skatepark-effekt

CHARLOTTE AMMUNDSENS PLADS (Copenhagen, Denmark)
A murky passageway transformed into a public space with different areas: classical square, ball court, playground and skatepark. Sculpture-like divisions cause zoning, that allows different users to be safe and don't distract each other.
See more: http://landezine.com/index.php/2011/05/charlotte-ammundsens-plads-by-11-landskab/

THE BENTWAY (Toronto, Canada)
Transforming a 1.75km space under Toronto's Gardiner Expressway into a vibrant public place where visitors can experience a diverse mix of activities and programs including skating.
See more: https://www.archdaily.com/912942/the-bentway-public-work?ad_source=search&ad_medium=search_result_projects -

11. AMENITIES FOR SKATERS
11.3. Integration of Skateable Infrastructure Into Public Spaces

Street skating is an important part for skating culture. However, skaters that use public spaces that are not designed for this purpose and can cause damage: scratch surfaces, chip edgings and leave coloured marks. Not all types of materials are suitable for skating. Where skating is anticipated and found to be suitable, infrastructure can be designed to withstand the physical and aesthetic impacts from skating. In other spaces skate deterrents may be used.

- **Use materials that can withstand skating**
- Connection to other skate, youth or recreational facilities is advised
- Take measures to ensure that all users of the space will be safe and avoid conflict (e.g. colourful zoning) *Go to tool 11.7. Reducing conflict in shared and multi-use spaces.*
- **Avoid direct interaction with key thoroughfares** (pedestrian, cyclist and vehicle).
- In spaces where skating is not welcomed use skate deterrents (e.g. rough surfaces)

3.11.3.1. Rue Cladel Skatepark

ISRAELS PLADS SQUARE (Copenhagen, Denmark)
The plaza works as a transition between two worlds, the city, and the neighbourhood park. The landscape character of the park continues into the plaza forming an organic pattern of trees. Harmonizes sport field and skatepark with plaza. The surface and unique facilities have been created to generate inspiration and space for many different kinds of activity.
See more: https://www.archdaily.com/880388/israels-plads-square-cobe

NEILL STREET RESERVE (Melbourne, Australia)
A neglected and disused section of road in an inner-Melbourne suburb was redeveloped into neighbourhood public open space known as the Neill Street Reserve between 2014 and 2015. The project provided local residents with two new multipurpose courts, a new community square and the municipality's first permanent outdoor table-tennis table. Robust design detailing was also added to accommodate skateboard and BMX use, in recognition of the recreation value for these activities and the inevitability of them taking place.
See more: https://landezine-award.com/grey-to-green-neill-street-reserve/

MELBOURNE MUSEUM PLAZA (Melbourne, Australia)
Museum plaza that is perceived as one of the best skate places in Melbourne. Museum management supports skating as an activity that enliven the area.
See more: https://participate.melbourne.vic.gov.au/skate

3.11.3.2. Skateboarder at Melbourne Museum Plaza

3.11.3.3. Israels Plads Square

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11. AMENITIES FOR SKATERS
11.4. Multi-Use of Skating Spaces

3.11.4.1. Rabalder Parken.

3.11.4.2. Esplanade Youth Plaza Fremantle

3.11.4.3. Street Dome

Skateable spaces may provide benefits for the community. Skating infrastructure is often accompanied by complementary uses: cafes, skate shops, public toilets. Moreover, skating spaces are often used for other sports: parkour, BMX, breakdancing or simply as event spaces. It increases the number of people on the streets making them safer. It is also an interesting spectator sport and many passersby enjoy watching skaters performing their tricks. In some cases skating infrastructure is also used for storm water management.

- **Form activity "clusters" for similar physical activities** which may be performed together without conflict: noisy activities(e.g. basketball, breakdancing, volleyball and live music), performance-based activities (e.g. dancing, live music, street performance, activities such as parkour, rock climbing or crossfit), etc.
- **Group skateable spaces with complementary activities:** creative-based activities such as public art, street art, DIY or workshop spaces, creatively designed spaces such as interactive spaces, or lighting and projector installations
- **Integrate skateable infrastructure into public spaces.** *Go to tool 11.3 Integrate skateable infrastructure into public spaces* .

RABALDER PARKEN (Roskilde, Denmark)
Skate park in Roskilde, Denmark. The 40,000 m2 park is integrated with a water management system which can transport and hold up to 23,000 m3 of water.
See more: https://www.wired.com/2013/06/innovative-infrastructure-a-skate-park-that-prevents-flooding/?cid=9195404#slideid-152739

ESPLANADE YOUTH PLAZA FREMANTLE (Fremantle, Australia)
Is a multi-award winning project, which is regarded as a highly successful plaza, by council and the community. It is set in a family friendly environment, catering for skateboarding, BMX, scooters, parkour, table tennis, slacklining, and play.
See more: https://architectureau.com/articles/fremantle-esplanade-youth-plaza/

STREETDOME (Haderslev, Denmark)
Danish architecture and design practices CEBRA and Glifberg+Lykke have designed a multi park and cultural centre for street sports on the harbour front of Haderslev in southern Denmark. StreetDome is a vast and unique urban landscape for activity and recreation including a 4.500 square metre skate park, facilities street basket, parkour, boulder climbing, canoe polo etc. It is an open playground and social meeting place for different ages, skill levels and cultures.
See more: https://www.archdaily.com/558349/streetdome-cebra-glifberg-lykke?ad_source=search&ad_medium=search_result_all

11. AMENITIES FOR SKATERS
11.5. Use of Skaters' Potential

Skaters often form a strong, youthful and innovative community ready to take part in designing or even construction of the infrastructure intended for their use. Moreover, a number of skaters joined their city councils in effort to promote skating as a sport and devise new policies to support it. Using skaters' potential is a good way of promoting active lifestyle and introducing cost-effective laws, design and infrastructure.

- **Participatory design and policy-making:** in order to assess what kind of infrastructure is need (type, difficulty level, location) people need to be asked
- **Participatory construction:** there is a number of DIY high-quality skating facilities. Inviting skaters to participate in construction may be cost-effective and lead to satisfied end-users.
- **Consider alternative funding:** like public/private partnerships, grants or crowd funding.

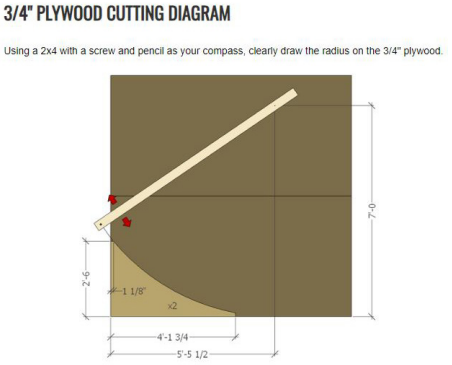
3.11.5.1. Ed Benedict Skate Plaza

ED BENEDICT SKATE PLAZA (Portland, USA)
This skate plaza was designed collaboratively with local skaters and artists. Besides providing an aesthetically pleasing skateable space, the final design also enhanced biodiversity, ecology and storm water management in the area. The plaza features infrastructure of different difficulty levels, both for beginners and advanced skaters.
See more: https://skateportland.org/ed-benedict-skate-plaza

SZABERBOWL (Warsaw, Poland)
The biggest DIY bowl in Poland, which got approved by an internationally recognized company: Grindline Skateparks. The construction took six months and its costs were estimated for 15000 zł, while professional construction would probably cost around 300000zł. It was founded by crowd funding. The bowl uses under-used terrain under Poniatowski bridge. However, the bowl was build without necessary permit, and will be demolished. Though, the municipality recognized skaters' potential and will build another bowl in the nearby location. The new bowl will be the first legal DIY in Poland – it will be finalized with public money and on city grounds and the skaters' will work under the supervision of professional construction workers. Its cost is estimated for 600000zł .
See more: https://www.redbull.com/pl-pl/szaber-bowl-gotowy-najwiekszy-w-kraju-bowl-diy

DIYSKATE.COM
Website informing how to make skating infrastructure on your own. It features free plans and insructions on how to make your own ramp, ledges and more.
See more: http://diyskate.com/

3.11.5.2. Szaberbowl



3.11.5.3. Example of instructions from diyskate.com

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11. AMENITIES FOR SKATERS
11.6. Dedicated Skate Parks

3.11.6.1. Riverslide Skatepark

3.11.6.2. Skate Park Nou Barris

3.11.6.3. The Seylynn Snake Run

The popularity of skateboarding is growing, especially among young residents of cities. Municipalities should provide appropriate quantity of skating infrastructure, skateable spaces and programs in order to accommodate growing needs of skating communities. Sufficient skating spaces prevent damage to infrastructure that is not intended for skateboarding and cannot withstand the physical and aesthetic impacts from skating. Skating infrastructure is also important for new skaters, who need a safe environment to learn their tricks.

- **Involve end-users** in design process and location choice .
- **Cater for and include diverse styles, devices, experience levels, ages, uses and genders.**
- Integrate skating into existing programs, events, policies and developments .
- **Group skateable spaces with complementary activities and other active uses:** *Go to tool 11.4. Multi-use skating spaces.*
- Make sure that the spaces are **safe and accessible**.

RIVERSLIDE SKATEPARK (Melbourne, Australia)
One of the largest skateparks in Melbourne, located in a public park. Has 100,000 annual visits and hosts regular events and programs. It provides a lot of features for street skaters including a big box, big ledges, stairs, heaps of blocks, quarters (including a large curved one), manual pads and, as the name suggests, plenty of rails to slide on.
See more: https://skatermaps.com/riverslide-skatepark/

SKATE PARK NOU BARRIS (Barcelona, Spain)
The new skate park of Nou Barris lies over the cover of Ronda de Dalt, one of the biggest road infrastructures of Barcelona. The project is to remodel an old skate park, which was used only partially in the past. The skate park includes three successive bowls. One of them belonged to the old skate and is maintained; it is the mythical hellcurvin (bowl which came to be known worldwide through the great skater Tony Hawk computer game). An area dedicated to street with multiple elements and a snake run zone are also incorporated in the design.
See more: https://www.archdaily.com/641582/skate-park-nou-barris-scob-sergi-arenas?ad_source=search&ad_medium=search_result_all

THE SEYLYNN SNAKE RUN (Vancouver, Canada)
A mixture of bumps, corners and beautiful combined with a slight downhill. The Seylynn Snake Run in North Vancouver provides all these things and is a must see shred for any skater looking for a type of excitement that isn't easy to come by in skateparks full of three stairs and ledges.
See more: https://shop-task.com/blogs/inline-skating/14544061-the-seylynn-snake-run-vancouver

11. AMENITIES FOR SKATERS
11.7. Reducing Conflicts Between Uses

Lots of skating activities take place in public spaces, which sometimes may put other user at risk in the space. Places where skating is encouraged may be marked through the materials used, the design of the space itself and, where necessary, signage and/or mapping.

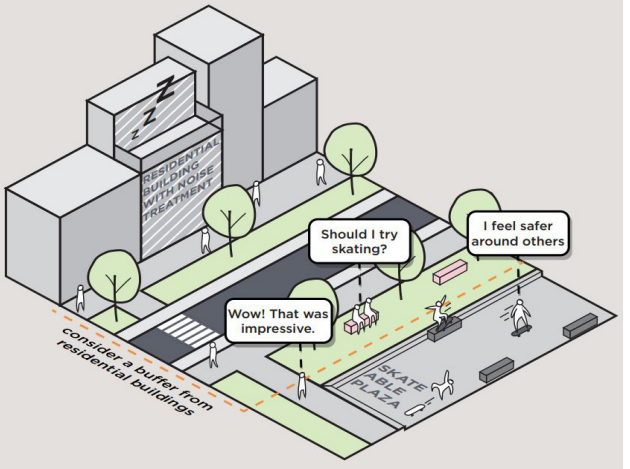
- **Use data-based location assessment criteria** to identify suitable and unsuitable locations and spaces for skating. *Go to tool 11.2. Location assessment criteria*
- **Use signage, materials and design** that will clearly identify where and when skating is allowed in a multi-use or shared space.
- Provide information on skating routes, locations and shared spaces through municipality's website, social media and other platforms.
- **Organise events** that promote responsible skating.
- **Preferred times of use** - Street skating can be a loud activity, so to reduce conflict and disturbance to other city users it is recommended to establish preferred times of use for skating locations that are in the vicinity of uses that may potentially conflict with skate activity (e. g. residential buildings).
- **Preferred routes and areas** - placing skateable elements along less populated routes throughout the city could attract skaters to use less congested and safer routes throughout the city.
- **Dedicated skate parks** provide a safe space that meets the needs of diverse skate styles and skate devices. Dedicated spaces are important and more attractive for beginners and younger skaters (below 15 years of age) to learn in a safe environment and provide a location for major events. *Go to tool 11.6. Dedicated skate parks.*

3.11.7.1. No skateboarding sign near the Anzac Memorial area in Hyde Park.

3.11.7.2. Skatepark Arsenal Rennes

SKATE MELBOURNE PLAN (Melbourne, Australia)
Both skaters and non-skaters were involved in the policy-making.
See more: e: https://participate.melbourne.vic.gov.au/skate

SKATEPARK ARSENAL (Rennes, France)
Skatepark designed by Constructo Skate Park Architecture. Concrete floor is coloured orange in zones where pedestrian have priority over skaters.
See more: https://www.constructo.fr/rennes-35/



3.11.7.3. Common challenges addressed
Graphic from Skate Melbourne Plan.

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12. AMENITIES FOR TEAMSPORTS
12.1. New Sport Grounds

3.12.1.1. Parque Los Heroees

3.12.1.2. Charlotte Amudsens Plads

3.12.1.3. Israel Plads

Depending on the sport itself, infrastructure requirements range from very basic (e.g. Patch of grass for frisbee) to more specific (e.g. Hard surface and hoops for basketball). Either way, providing safe, quality infrastructure can be a major factor in motivating physical activity. Best practice examples of newly built sports grounds tend to attract users from far beyond the neighbourhood they were originally built for.
Other than promoting activity team sports, it has an immense social benefit. They have the potential to foster communities, cooperation, lower crime levels, include different social groups etc. This implies newly built grounds take that factor into account in the design process.

By their nature, team sport amenities require much less space than individual sports equivalents, making them ideal for interventions in dense areas.

- Consider locating team sports infrastructure in **low-income neighbourhoods**
- Bear in mind that team sport facilities can bring life to **neglected areas**
- Try to make the designs inclusive to make the public space inviting
- Involve **local community** in the planning process
- Offer **multisport facilities** or include a range of team sports in the design
- Consider **safety** measures both for the players and their surroundings

PARQUE LOS HEROES (Toluca de Lerdo, Mexico)
Park renovation in a violent social housing area of a Mexico's city suburb, tackled the high crime rates of the area by including lots of team sport facilities to build a sense of community.
See more: http://www.descroll.com/architecture/urban-parks-by-francisco-pardo-arquitecto

CHARLOTTE AMUDSENS PLADS (Copenhagen, Denmark)
Murky passageway characterised by grafitti, dead trees and worn own cobblestown was turned into a square featuring a sports field, attracting swaths of people
See more: http://landezine.com/index.php/2011/05/charlotte-ammundsens-plads-by-11-landskab/

ISRAEL PLADS (Copenhagen, Denmark)
Lifeless car park was turned into a plaza, where the surface functions as a large urban playground and a space for activity, including a generous teamsports area.
See more: https://www.archdaily.com/880388/israels-plads-square-cobe

12. AMENITIES FOR TEAMSPORTS
12.2. Refurbishment Of Community-Made Places

Oftentimes local communities finds itself in a situation of deficit of suitable infrastructure, builds makeshift sport grounds to satisfy their needs. Examples are backyard basketball courts, parking lot football matches etc.
These places, however, are not best suited for physical activity, have an innate quality of being established community centres. With refurbishment effort they can become safer and better suited for team sports all the while maintains the familiarity for its users.

- Add local touches the project or allow community to add their art, furnishings etc. to **foster the ownership** of the place
- Involve the **local community** in the design process
- Aim to improve safety in refurbished infrastructure
- Focus on **marginalized neighbourhoods**
- Proper implementation will lower the community pushback in next projects
- Consider expanding **supporting facilities** to invite additional user groups
- Do not change the **program** of the place without consulting its current users

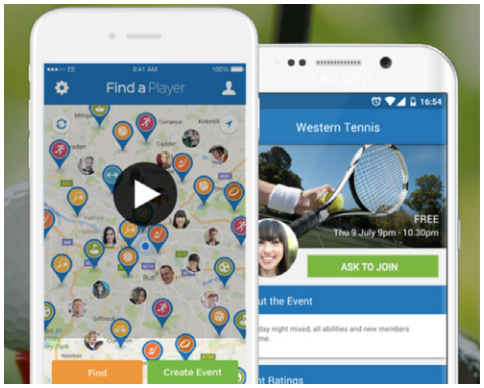
3.12.2.1. Pigalle basketball court

PIGALLE BASKETBALL COURT (Paris, France)
A former parking lot used by the locals as a basketball court, was given an artistic and functional refresh. It transformed a dead space into a place that has fostered a family of local ballers and inspired other creative interventions.
See more: https://www.designboom.com/art/paris-pigalle-basketball-2020-stephane-ashpool-nike-01-22-2020/

CANACHA LA DOCE (Mexico)
LA DOCE is a collaborative project that aims at refurbishing makeshift football fields in neglcted areas into quality public spaces that allows for safe and enjoyable sport experince for less well-off social groups.
See more: https://www.plataformaarquitectura.cl/cl/899281/cancha-la-doce-el-futbol-como-intervencion-social-y-urbana

3.12.2.2. La DOCE football field before and after restoration

12. AMENITIES FOR TEAMSPORTS
12.3. Finding Events and Teams



3.12.3.1. Find a Player

One of the major roadblocks in convincing people to physical activity in the form of team sports is connecting willing players. Even with an established, high quality infrastructure there is a need for organising community sport events, organising people into teams and so on. This is often on players own discretion to do so, however there are policies and solutions which make it easier. This in turn leads to higher popularity of a given team sport a higher usage ratios of often expensive infrastructure projects.
On the other hand, when a team is formed, there is a need to participate in sports events. These events can tackle public space activity promotion by organising amateur tournaments on existing community or professional sport grounds.

- Make it easier for **newcomers** to find a team in the city
- Promote using **apps** for team finding
- Organise **open events** to activate local communities
- **Amateur leagues** can be a perfect tool to ensure constant usage of infrastructure

3.12.3.2. Turniej o złotą piłkę

3.12.3.3. Playarena

FIND A PLAYER (United Kingdom)
Find a Player is a mobile app designed to take the pain out of finding and playing sport. It offers a map of events, teams and clubs and connects them to willing players.
See more: https://www.findaplayer.com

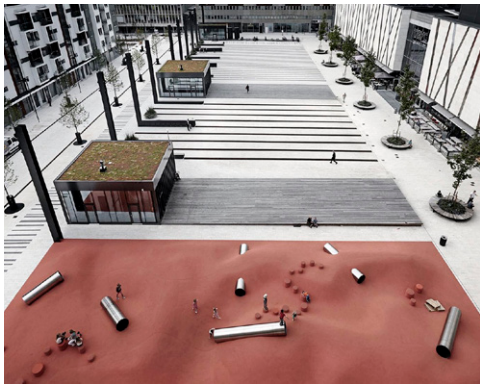
GOLDEN BALL TOURNAMENT (Polish: Turniej o Złotą Piłkę) (Warsaw, Poland)
Tournament organised in professional stadiums to award amateur teams an opportunity to play football on quality sports infrastructure.
See more: https://aktywnawarszawa.waw.pl/pl/imprezy-sportowe/gramy-o-zlota-pilke

PLAYARENA (Poland)
Playarena is an organisation running local amateur leagues for 6-person football teams throughout the country. Matches are played on stadiums built for a public sport infrastructure project.
See more: https://playarena.pl

13. AMENITIES FOR LEISURE AND PLAY
13.1. New Spaces For Playing And Leisure

Planning now to protect important open space and recreational facilities can greatly enhance the attractiveness of our community and encourage compatible growth in the future. Planning allows the City to confront and manage aspects of growth and development in ways that preserve, protect, and enhance the environment. A successful play space is a place in its own right, specially designed for its location, in such a way as to provide as much play and leisure value as possible.

- **Development of attractive, exciting and welcoming places**
- **Connection to nature**
- The idea of these spaces is that the **everyday life** of city inhabitants takes places; they provide the possibility for various forms of recreation. It brings attractiveness and identity
- It should be **divided into leisure zones** for various social groups
- It should be **interestingly designed** in terms of architecture, urbanism and aesthetics (including layout, surface, colors, lighting, and elements of small architecture)
- Identify **areas that are suitable for play and leisure areas**
- Consider **proximity to inhabitants** and plan them close to population
- Consider possibilities of **reusing existing or neglected spaces**
- These places, in both rural and urban areas, might include residential streets, town and city squares, playgrounds in parks and other open spaces; woods and commons; recreation grounds or public spaces on housing estates – anywhere that play, or leisure is a legitimate use of the space.



3.13.1.1 Taby Torg Square

3.13.1.2. Relax – Market Street

3.13.1.3. Impulse

SUPERKILEN (Copenhagen, Denmark)
It is a half a mile-long urban space. A range of recreational that offers the large central square, allows the residents to meet each other through different physical activity and games.
See more: https://www.archdaily.com/286223/superkilen-topotek-1-big-architects-superflex

TABY TORG SQUARE (Taby, Sweden)
It is a 10000 msq space of opportunities that is organized in six squares opening a wide variety of possibilities. This square is the best place in the neighborhood where people can gather for events, activities and enjoy the urban life.
See more: https://www.archdaily.com/780927/taby-torg-polyform

RELAX- MARKET STREET (San Fransisco, California, USA)
See more: https://snohetta.com/projects/285-relax-market-street-prototyping-festival

IMPULSE (Montreal, Canada)
See more: http://lateraloffice.com/IMPULSE-2015-16

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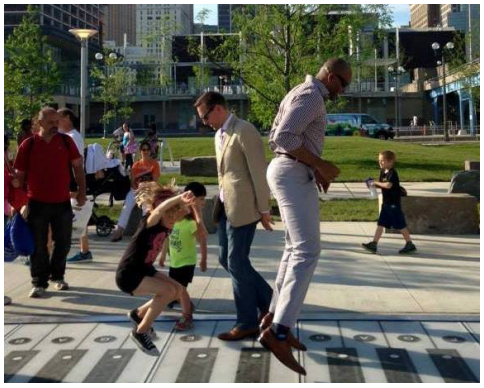
13. AMENITIES FOR LEISURE AND PLAY
13.2. Interactive and Creative Devices for Everyone

3.13.2.1 Park 'N' Play



3.13.2.2 P&g Go Vibrantscape

Children are the most demanding group of customers, but the joy and fun they get from playing and enjoying their time in public spaces gives satisfaction. Providing interesting and creative forms of physical activity, psycho-motoric development of children and enabling them to conquer their small weaknesses is the most important fact. This is a series of creative and interactive devices which can bring kids and adults together. A great variety of such devices is dedicated to users of any age from very young children to adults. It is a perfect solution for public space, recreational areas, theme parks as well as hotels and resorts.

- Designer role is to **create a space that is attractive and eye catching**, a place where kids and adults will be happy to come back to
- Play space needs to be of high quality and good design to attract children and families and become a valued **part of the local environment**
- **Choose spaces that are abounded** or that people go through but without any specific use- These places, might include residential streets, town and city squares, playgrounds in parks and other open spaces; woods and commons; recreation grounds or public spaces on housing estates – anywhere that play is a legitimate use of the space.
- Make the space work as an **identity spot of the neighborhood**
- Take into consideration the fact that **play should be at the heart of children's everyday lives** and experiences throughout childhood.
- **Safety** is an issue for parents and children. This is often a barrier to encouraging outdoor play, so we want play spaces that help children play safely and to encourage parents to let their children play outside.
- To create and maintain exciting play areas for children and young people of different ages, sometimes by making only **small changes to existing provision**. It also aims to provide the ideas and the practical resources for building new play areas in a fresher and more inspiring way than is common practice at present.

I LOVE STREET (Gwangju, South Korea)
It's a perfect place for children and adults where they can enjoy their time while passing this street. Its designed with multiple different pavements that can be used for sitting, painting, jumping on trampolines, and playing in the sand. By shaping these pavements in a series of letters, a true text appears, indicating people's love for many things through 'I LOVE'.
See more: https://www.mvrdv.nl/projects/300/gwangju-folly

URBAN THINKSPCE (Philadelphia, Pennsylvania, USA)
Public space equipped with different game installations which focus on stimulating kids' cognitive functions through play—and turning downtime into a learning opportunity. Urban Thinkscape offers playful learning that can be found in everyday activities.
See more: https://qz.com/1256248/the-urban-thinkscape-project-sneaks-games-into-public-spaces-to-help-kids-learn-better/

14. OTHER ACTIVITIES
14.1. Amenities for Winter Sports

Wintertime doesn't have to be associated with cold, gloomy days and an inactive lifestyle. In that season a lot of activities can be done. Winter sports or winter activities are competitive sports or non- competitive recreational activities which are played on snow or ice. Most are variations of skiing, ice skating and sledding. Traditionally, such games were only played in cold areas during winter, but artificial snow and ice allow more flexibility. Artificial can be used to provide ice rinks for ice skating, ice hockey and bandy in milder climate.

- Increase **activeness in wintertime**.
- **Encourage** physical activities.
- **Promote social interaction and friendship**.
- **Spend more time outside in the fresh air**.
- Make activities **fun** and and connect them with **festivities**.

3.14.1.1 Lodowisko Gdansk

ICE RINK (Gdańsk, Poland)
A huge white balloon is a pneumatic dome of the ice rink that holds a 30 x 60-meter slide under it. It is a great place for youth, families with children, as well as the elderly. Both children and adults can spend their time actively.
See more: https://www.dzieckowpodrozy.pl/lodowisko-gdansk-plac-zebran-godziny-otwarcia/

SKI (Dubai, United Arab Emirates)
22,500 square meters Ski Dubai is one of the unique ways to beat the heat in Dubai. That extraordinary transformation from scorching desert to a winter wonderland can be found only in Dubai. It features an 85-meter-high indoor mountain with 5 slopes of varying steepness, including a 400-meter-long run, the world's first indoor black diamond run, and various features.
See more: http://blog.raynatours.com/ski-dubai/

COPPENHILL (Copenhagen, Denmark)
Park and ski slope design that caps the 170,000-square-foot (16,000-square-meter) design seeks to reclaim a typically unused element of a building for the public through the introduction of nature-filled program. In the winter, the park is joined by over 1,640 feet (500 meters) of ski slopes.
See more: https://www.archdaily.com/925966/copenhill-the-story-of-bigs-iconic-waste-to-energy-plant

3.14.1.2 Ski – Dubai

3.14.1.3 Coppenhill

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14. OTHER ACTIVITIES
14.2. Indoor Water Activites

3.14.2.1 Aquatica

3.14.2.2 Epicwaters

Indoor water sports features water play areas such as swimming pools, water slides, splash pads, water playgrounds, and lazy rivers, as well as areas for bathing, swimming, and other barefoot environments. They may also be equipped with some type of artificial surfing or body boarding environment, such as a wave pool or flow rider. The indoor water activities are one of the best solutions for being active in every season of the year.

- Promote **social interaction** and friendship
- More time can be spent outside in the fresh air
- **Fun and festivity**
- **Family attraction**
- Designers should remember that indoor water activities should have as much as attractions as it could handle.
- The idea of this tool is to let people spend their time not only on the beach but in a **"water city" that can have all attractions in one place**
- **Involving the community** during the construction stage can help people adjust to change. Supervised and prearranged site visits during construction can be useful to help to build a sense of ownership of the new space by the community, so that when it opens, they already feel it is 'theirs'.

AQUATICA (Florida, USA)
59-acre water park expansion boasts what was then the world's most thrilling water rides. In addition to the many pools, slides and interactive water play features, one of the more unique items is the transparent waterslide that takes guests through a rare dolphin exhibit.
See more: https://watertechnologyinc.com/projects/aquatica-seaworld-waterpark-orlando

EPIC WATERS (USA)
One of the largest indoor water parks in the world, Epic Waters Indoor Waterpark is an 80,000 square-feet facility of non-stop excitement. Open year-round, this water park is not a typical "parks and recreation " project!
See more: https://www.whitewaterwest.com/en/projects/epic-waters-indoor-waterpark/

14. OTHER ACTIVITIES
14.3. Water Play Areas

Water play areas can be divided into bigger and smaller areas. They can include splash pads, interactive fountains but also urban beaches, outdoor water slides and public swimming pools. Those are places that are designed mostly for summer use and with it's attractiveness they bring big amount of people every year.

- The idea of this tool is to encourage people to be **active in hot, summer season**
- **Diversity of activities**
- More time spent **outside in the fresh air**
- Promoting **social interaction** and friendship
- The best location to choose when designing **interactive fountains or splash pads** are areas like parks, plazas and places with a big number of people and visitors
- Water play areas should be equipped with **complex system of hydraulics, plumping and computerization**
- Spray parks should be **designed** by architect or engineer **together with landscape** architect so the equipment's could nicely mix in with the surrounding
- To **encourage families, provide comfortable seating, tables and snack facilities**
- **Fencing** should only be used to separate the designated play area from hazards
- **Surface** is an important consideration

WATERBOM (Bali, Indonesia)
Waterbom Bali is the island's premier water park, which has over a dozen exciting waterslides and water games for all ages. The park covers 38,000 sq m of tropical gardens and pools, as well as onsite dining and leisure facilities. Rides at the water park include leisurely pools with mini slides and adrenaline-pumping rides that start from significant heights.
See more: https://pl.hotels.com/go/indonesia/waterbom-bali

WICHITA SPLASH PARKS AND FOUNTAINS (USA)
Kids of all ages have a unique attraction to interacting with water for entertainment. This Park has a diversity in choice. Every splash park has something different to offer. Creative, interactive splash pads bring out the curiosity and joy in everyone.
See more: https://wichitamom.com/around-wichita/wichita-splash-park-round-up/


3.14.3.1 Waterbom


3.14.3.2 Wichita Splash Parks And Fountains


3.14.3.3 Floating Playgrounds

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14. OTHER ACTIVITIES
14.4. Water Sports and Active Waterfronts

3.14.4.1 The Floating Kayak Club

3.14.4.2 Faaborg Harbour Bath And Blue Base

3.14.4.3 Aarhus Harbor Bath

There's nothing more serene and peaceful than the water. The fresh sea breeze, the calming sounds of the waterfront and the aura of relaxation that the water exudes is pretty much perfection.
Active waterfronts are very functional spaces that proves to be the ideal location for many water sports. Water sports are activities on, under or in water in the liquid form. They all must involve some level of physical activity. Motorized activities can be included whereby the engine is used as a means to provide momentum for the activity (e.g. waterskiing), provide safety cover or access to the activity/environment. Water sports are available for all ages and they can be done both recreationally and competitively.

- Choose spaces, where land use or materials **do not conflict with water**
- Because its located next to the water, **site should be safe for all ages and genders**,
- Use **underutilized waterfront spaces**
- To engage in water recreation activities often requires special equipment, knowledge for personal safety, access to water environments, sufficient knowledge and skill for the activity itself and information on opportunities to avail of such things.
- Water sports provide clear reconnections with nature and provide a mechanism for **people to value their natural resources**
- Choose spaces like l**akes, rivers and coasts** that are accessible and provide a resource for recreation.
- It is necessary to identify and note the **potential risks** through inspection or knowledge of the areas where activities are carried out

THE FLOATING KAYAK CLUB (Vejle Fjord, Denmark)
Focuses on kayaking as an outdoor water sport, a floating deck is a place where users get the full experience of practicing the sport in its true environment. A series of ramps, and stairs ensure continuous movement between the two volumes and the upper and lower decks.
See more: https://www.archdaily.com/777503/the-floating-kayak-club-force4-architects?ad_source=search&ad_medium=search_result_projects

FAABORG HARBOUR BATH AND BLUE BASE (Faaborg, Denmark)
A public water space which attract visitors and invite the locals to swim and enjoy water sports. The idea of the project is to create an open sea bathing area with piers branching out seawards creating swimming areas between them.
See more: https://www.archdaily.com/518083/faaborg-harbor-bath-urban-agency-jds-creo-arkitekter?ad_source=search&ad_medium=search_result_projects

AARHUS HARBOR BATH (Aarhus, Denmark)
Floating platform along the coast of the city creates a protected community space for up to 650 people. The bath comprises a circular diving pool, shallow children's pool, a 164-foot lap pool, and two saunas. The pools are surrounded by a plank wood platform where on the other side users can practice other water sports.
See more: https://www.archdaily.com/900107/aarhus-harbor-bath-big

14. OTHER ACTIVITIES
14.5. Amenities For Other Sports and Activities

Sport has become more common. It is easier for users to start a sport when no special equipment is needed. People feel more confident when they can choose to participate in a sport at any time. To encourage people to be active, the infrastructure and all amenities should be easily accessible and used, which will ensure great satisfaction from the sport performed.

Providing multifunctional spaces opens up opportunities for sport and physical activity and has numerous wider benefits. This tool has been produced to help illustrate how active design can be implemented I developments in a practical way. There are opportunities to create areas that encourage physical activity and an enjoyable local environment to lift the quality of life for customers, employees and people travelling through the area.

- Allows to achieve **a state of relaxation and calmness.**
- Build **stronger communities**
- Provide **muscles** with a large dose of **training**
- The perfect combination to get your day off to a good start
- **Reduces antisocial behavior**, promotes solidarity and cooperation over competition,
- increases togetherness and sense of belonging
- ensure that the built environment is appropriate
- address safety issues by using effectively built environment design principles to reduce crime and improve sport and active recreation environments
- The effect of **color and material palettes** on facility users can be significant. They can influence the user's sensory experience and can influence behavior and emotions.
- Use of **subtly textured, visually soft materials**

DANSBANA! (Stockholm, Sweden)
Public places for spontaneous dance, carefully detailed with a high-quality sound system made of bright and beautiful metal-clad speakers. A place where members of the public can connect to loudspeakers via Bluetooth, play music, and dance!
See more: http://annapang.se/projects/dansbana/

PUTT CLUB (Stapleton, UK)
Part of the outdoor space has been transformed into the newly dubbed Putt Club that is an 18-hole mini golf place located right in front of a Punch Bowl Social Stapleton restaurant. This place encourage people to be active even while their lunch breaks.
See more: https://303magazine.com/2019/06/mini-golf-stapleton/

3.14.5.1 Dansbana!

3.14.5.2 Putt Club

3.14.5.3 Joga At Konesera Square

15. MOTIVATION AND EDUCATION

16. INCLUSIVENESS

17. SAFETY

D: PEOPLE

15. MOTIVATION AND EDUCATION
15.1. Advocacy

Advocacy is public support for an idea, plan, or way of doing something, which promotes activity and active lifestyle. Advocacy makes activity-oriented events, places and interventions better known to the public and enhances their chances of success. May be provided in form of public endorsement, advertising, positive reviews, etc.

- **Get support from public subjects** (municipalities, local authorities, non-profit organizations, charities, celebrities, etc.). Lots of NGOs offer support and advice for activity-oriented projects: you just need to find them and ask for guidance.
- **Try to get your initiative on city or local NGO and apps and websites:** that would make them better known and more accessible both for locals and tourists.
- **Look for role models:** giving your project a face, makes it easier for people to identify with them and take part.
- **Engage doctors to speak about and prescribe physical activity.** In some countries exercise prescription is considered to be like any other prescription, with a type, dose, frequency, duration and therapeutic goal.
- **Use social media** to get in touch with potential supporters and for promotion.
- **Define your target groups or look for new ones:** advocacy makes it possible to reach more people and or get the attention of individuals that wouldn't be interested otherwise – for example getting a celebrity to support an activity-oriented campaign may interest their fans in it.

3.15.1.1. The Open Streets Guide title page

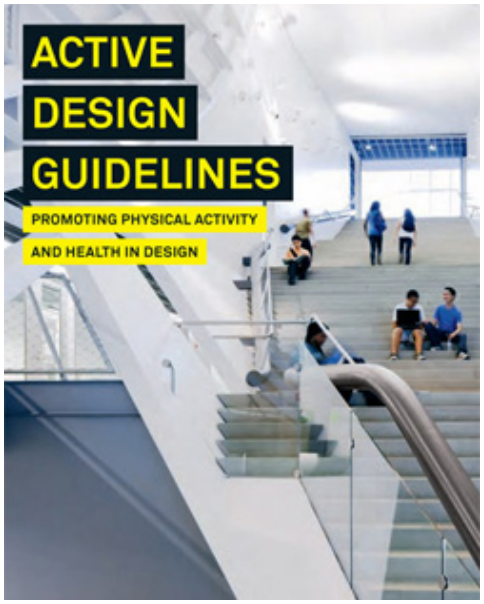
OPEN STREETS PROJECT (North America)
The Open Streets Project is an advocacy project and collaboration between two organizations, 8 80 Cities and Streets Plans. Its goal is to share information about open streets and increase the number, size, and frequency of initiatives in North America. The organization offers aid and guidance to organizations and cities founding or growing their open streets programs .
See more: https://openstreetsproject.org/

DARE TO CHANGE (Polish: Odważ się na zmiany) (Poland)
Odważ się na zmiany (eng. Dare to change) is a social campaign that shows, that it is worth to change and improve your life after hitting 50. A number of events were organised, each consisting of sharing inspiring personal stories, lectures about health and physical activity, free medical check-ups and a dance: all of those activities aimed mainly at seniors. Campaign got public support from a number of municipalities, famous personalities and organizations for example: DJ Wika - Wirginia Szmyt the oldest DJ in Poland (She is over 75) and brilliant social activist and GACA System – famous company taking care of people suffering from obesity. The events are promoted on city websites.
See more: https://zaczyn.org/badanie-polki-zaczynaja-zycie-piecdziesiatce/

3.15.1.2. DJ Wika during Odważ się na zmiany (eng. Dare to change) event – a dance for all generations

D

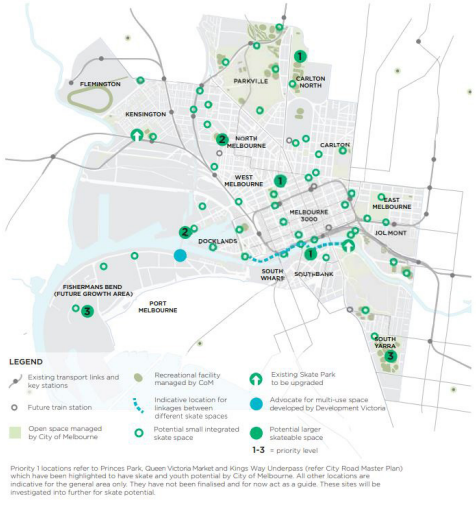
15. MOTIVATION AND EDUCATION
15.2. Active Strategies, Programmes and Policies



3.15.2.1. Active Design Guidelines title page

Strategies, programmes and policies are ways in which government, municipalities and organisations may promote active lifestyle. This category includes: providing guidelines on how places should be designed in order to promote activity, introducing regulations that would result in increase of citizens' activity, setting goals and objectives for improvement of accessibility of sport areas and devices, etc.

- **Ask people what they want:** invite inhabitants in the discussion and participatory planning and design
- **Plan in long-term scale:** a lot of successful actions supporting active lifestyle took over 10 years.
- **Create active policies:** There are plenty of policies that can be easily modified to encourage more movement, e.g.: policies around development zoning, school sitting, cycling paths, traffic calming, pedestrian-friendly zones, park availability, etc.
- **For specific guidelines and recommendations, see:** *How to Create and Implement Healthy General Plans by Changelab Solutions https://www.changelabsolutions.org/sites/default/files/Healthy_General_Plans_Toolkit_Updated_20120517_0.pdf*
- **Resolve problems not directly connected to activity by promoting:** e.g. improving safety, helping underprivileged groups or groups that are prone to being less active (e. g. elderly), reducing traffic by encouraging children to walk or bike to school, etc.



3.15.2.2. Opportunities to increase skate provision - indicative skateable spaces.

SKATE MELBOURNE PLAN (Melbourne, Australia)
Skate Melbourne Plan acknowledges skating as a sport and a valuable part of city culture and provides guidelines for design of skating facilities that would attract skaters but at the same time do not disturb other inhabitants.
See more: https://participate.melbourne.vic.gov.au/skate

ACTIVE DESIGN GUIDELINES (New York City, USA)
Active Design Guidelines prepared by the New York City.
See more: https://centerforactivedesign.org/dl/guidelines.pdf

INNOVATIVE CITY PLANNING & TRANSPORTATION PROJECTS (Bogota, Colombia)
Parking on sidewalks was banned. Reclaiming sidewalks as public domain not only helped to discourage car use by removing "parking spaces" but increased the safety and accessibility of space for everyone (not just wealthier car owners), and improved opportunities for walking. Ciclovia, on Sundays from 7am to 2pm and on holidays, 75 miles of streets in Bogota are closed to cars. Pedestrians, cyclists, skaters come out to enjoy the open streets free of traffic. Unlike many cities in South America, Bogota's levels of physical activity have increased over the past decade.
See more: https://www.citylab.com/transportation/2018/10/how-bogotas-cycling-superhighway-shaped-a-generation/571900/

15. MOTIVATION AND EDUCATION
15.3. Maps and Guidance

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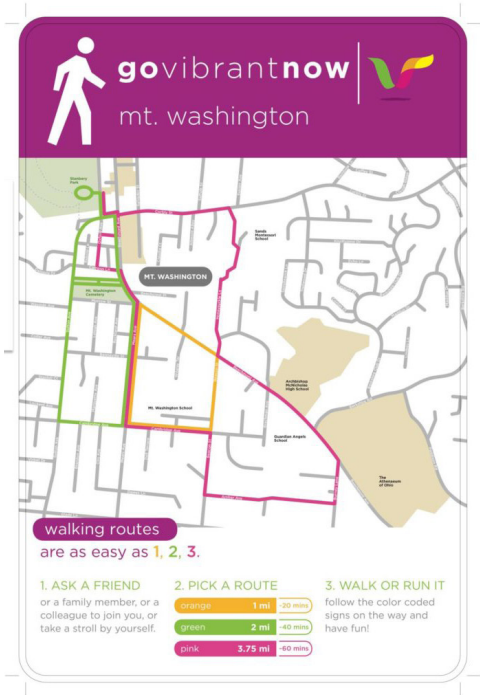
Maps with routes, as well as guided tours make people aware that they can use their own living area as interesting space for activity. People are often willing to be active but don't see their own environment as potential activity space. Ready-made and guided routes make it easier for people to get physically active. Route descriptions usually provides information about difficulty level and distance, which allows people to choose an option suitable for their needs. Maps and guided routes may also serve as an attraction for tourists or a tool in revitalization process of degraded districts.

- **Create online maps or apps with of walking routes or landmarks pinpointed by locals:** provide interesting activity paths for others and may serve as motivation for movement for urban explorers. Material signs informing about the routes (for example arrows giving directions) make passers be aware of the route and increase the possibility of them getting to know about it and walking on it.
- **Organize walks with local guides** make people more aware about interesting aspects of their neighborhoods but also encourage them to move
- **Put cycling and walking route maps on city apps and websites** make them better known and more accessible both for locals and tourists.



3.15.3.1. The Go Vibrant walking path route in Mt. Washington

3.15.3.2. The Go Vibrant walking path sign in Cincinnati

GO VIBRANT WALKING ROUTES (North America)
go Vibrant Walking Routes Network of urban walking routes, which are created in collaboration with the neighbourhoods themselves and are marked with signs throughout neighbourhoods.
See more: http://govibrant.org/get-active/walking-routes/

ONLINE GUIDES TO BISKUPIA GÓRKA, NOWY PORT AND STARY CHEŁM DISTRICTS (Gdańsk, Poland)
Biskupia Gorka, Nowy Port and Stary Chełm are degraded districts in Gdańsk. As a part of revitalisation proces online guides pinpointing the most interesting spaces in districts were written with assistance of their inhabitatnts. Guides provide maps were the attractions are marked making it easy to go out and explore them.
See more: https://ikm.gda.pl/2018/01/24/nowy-port-biskupia-gorka-stary-chelm-maja-swoj-przewodnik/

CURATED WALKS (Sydney, Australia)
Sydney has created curated walks to guide people through a walking tour of city's cultural attractions.
See more: https://www.sydneymovingguide.com/free-walking-tours-in-sydney/

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15. MOTIVATION AND EDUCATION
15.4. Road Closure Events

3.15.4.1. Nightskating Warszawa

3.15.4.2. Raahgiri Day, Gurgaon, India

3.15.4.3. Bogota's Ciclovia at Avenida Chile

Streets are the most primary places for movement, but are usually dominated by cars. Closing streets for cars, opens it up for all kinds of activities. Such events may occur as a one-time or regular event. The length of time for which the streets are closed vary: sometimes streets are closed for one day in a week, for other events only for a few hours.

- **Choose the right route:** if you want people to come out, you need to take them someplace they want to go. The most successful events happen on iconic streets.
- **Frequency:** if it's not a one-time event it's important to make sure that the program takes place with predictable regularity.
- **Choose the right time:** Sunday is the most common day of the week for road closure events, as the traffic congestion is often at its lowest, and many businesses open late or do not open at all.
- **Free and accessible participation:** The best road closure events are designed to be inclusive of all ages, abilities and socio-economic circumstances.
- **Get support from the municipality:** it is indispensable, whether it's with funding, permitting, or programmatic support.
- **Attract people:** promote the event in media, social media, press, posters, notice to affected citizens etc.

OPEN STREETS PROJECT (North America)
The website promotes the open street events by providing extensive database of examples and set of step-by-step advice for potential organizers of the events.
See more: https://openstreetsproject.org/

NIGHTSKATING WARSZAWA (Warsaw, Poland)
Main streets of Warsaw are temporarily closed for cars in the night, so that night skating rides can take place.
See more: https://nightskatingwarszawa.pl/

RAAHGIRI DAY (Gurgaon, India)
Raahgiri Day is India's first sustained car-free day. Launched in Gurgaon on 17.11.2013, the event closes 4.5 kilometers (2.8 miles) of major streets to automobiles every Sunday from 7:00 am to 12:00 pm and opens them up for recreational and community activities. Following Gurgaon, New Delhi established Raahgiri Day as well.
See more: https://wrirosscities.org/media/photo-essay/raahgiri-day-gurgaon-india

TEMPORARY PLAY STREET ORDER (Bristol, UK)
Bristol (UK) has a system in place to allow citizens to apply for a "Temporary Play Street Order" that closes streets to play on a one-time or regular basis. Families love it and it's helped to strengthen the city's reputation as a playable city.
See more: https://www.bristol.gov.uk/streets-travel/playing-out

15. MOTIVATION AND EDUCATION
15.5. Mass Participation Events and Races

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There is an increasing demand for mass participation sport events - large scale organised challenges, in which anyone can take part. Mass participation events are positive, friendly and inspire participants to keep up fitness commitments long after the event has passed. The idea is not to focus on "breaking the record", but rather to celebrate the achievement of taking part above completion time. They're perfect for more inexperienced participants, focusing on being inclusive rather than competitive.

- **The need for a common vision:** The city and its citizens must share your vision as mass sports events often upset the daily life of the citizens.
- **The need for cooperation:** The use of public roads and spaces requires more in terms of logistic cooperation than indoor events.
- **Most important things to consider:** the date, the route, consequences for the traffic, dispensations from the city council and its departments, unhindered access to shops and restaurants, restraints imposed on the citizens, funding .
- **Great for fundraising:** supporting a charity is a good cause to get active, even for the people who are generally not interested in heavy, active lifestyle.
- **Motivation and healthy lifestyle promotion**: seeing others compete makes people more likely to get active themselves.
- **Family friendly**: as those events are not focused on the results for most of the participants, they often welcome people of all ages.
- **Benefits for cities:** additional economic impacts, higher pay off than in elite events, extra income for local clubs, contributing to health strategies, promoting the city and presenting it from new angles, Increased community spirit and pride.

Independence Run (Polish: Bieg Niepodległości) (Warsaw, Poland)
One of the biggest mass participation sport events in Poland takes place on an important national holiday – Independence Day. Its participants see it not only as a sport event but also as an important celebration, which serves as an important motivation.
See more: https://aktywnawarszawa.waw.pl/pl/imprezy-sportowe/bieg-niepodleglosci

LONDON TO BRIGHTON BIKE RIDE (London-Brighton, UK)
The London to Brighton Cycle Ride is an iconic 55 mile cycle ride starting from Clapham Common in South London, to the seaside town of Brighton. The path is fully signed, with free water stops and mechanical support on the way. Participants who completed the rout are awarded who London to Brighton Cycle Medal.
See more: https://www.londonbrightoncycle.co.uk/

LONDON SANTA RUN (London, UK)
A running event, where participants are dressed as Santa Claus. Runners can choose between 5km and 10km routes or mini route for children until 8 years old. Every runner gets a free Santa Costume and a medal.
See more: https://londonsantarun.co.uk/


3.15.5.1. Run of Independence, Warsaw, Poland


3.15.5.2. London to brighton bike ride


3.15.5.3. London Santa Run

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15. MOTIVATION AND EDUCATION
15.6. Awareness and Education

3.15.6.1. European mobility week graphic

3.15.6.2. Move for Health Day logo

3.15.6.3. Take the stairs! poster

Education is the key element in making citizens healthier. It's important to make active lifestyle a public case and track and promote the success, so that the positive effects of healthy policies would be visible, and residents made aware that those actions are beneficial for the city and cost-effective. It is also important to educate by design and provision of well-designed active spaces.

- **Regularly make the case for physical activity:** People need to hear about why and how their city is physically active.
- **Track and promote success:** Cities that are successfully making their citizens active should celebrate and make public their success. Publish data such as: Cost savings or growth from various interventions, reduced cost of government infrastructure, etc.
- **Celebrate:** celebration of activity holidays is a time to highlight the importance of staying active through sports and other fitness activities.
- **Look for role models:** City leaders can be high-profile champions and encourage citizens to be active.
- **Put activity-oriented activities and cycling/walking route maps on city apps and websites.**
- **Build for activity and fill the city with activity-incentives:** Make stairwells more visible, mark bike lanes, add parking for bicycles, improve walkability, etc. For more ideas go to: the Active Design Guidelines- by the City of New York - https://centerforactivedesign.org/dl/guidelines.pdf.
- **Make workplaces active:** Start with walking meetings, time and space for exercise, accessible stairs, standing desks, treadmill desks, incentives for active transport, etc.

EUROPEAN MOBILITY WEEK
It is a week-long series of activities contributing to converting from private cars to sustainable and active modes of transport which Car-Free Day is part of. Many cities restrict private car use and offer a variety of activities on this day.
See more: : https://mobilityweek.eu/home/

MOVE FOR HEALTH DAY
Move for Health Day is a WHO initiative to create awareness and promote the benefits of physical activity as essential for the health and well-being of the general public.
See more: : http://www.who.int/moveforhealth/about/en

LEED, DESIGN FOR ACTIVE OCCUPANTS
New York City's collaboration with the U.S. Green Building Council to create a new Leadership in Energy and Environmental Design (LEED) green building certification Pilot Credit known as "Design for Active Occupants", using one of its health department buildings as the first project. The credit has now been registered for use in over 250 buildings in and outside NYC.
See more: https://participatoryplanning.ca/sites/default/files/upload/document/tool/designed_to_move_.pdf

15. MOTIVATION AND EDUCATION
15.7. Teaching the Kids

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Education is the key element in making citizens healthier. Children are most important recipients of healthy campaigns as they are in fact the future of cities, but also have an influence on their parents and may contribute by making their lifestyles healthier. While working with and for kids it is especially important to acknowledge their needs, which are drastically different than those of adults.

- **Engage whole family:** Children often learn by mimicking. If their parents or guardians are active, children are more than 5 times as likely to stay active.
- **Start early:** Children learn more physical skills in their first 6 years than at any other point in their lives.
- **Choose age-appropriate activities:** *For age-oriented tips go to: https://www2.hse.ie/wellbeing/teaching-your-children-to-be-active.html*
- **Keep the focus on fun:** children don't want to do something they don't enjoy.
- **Encourage children to walk or bike to school.**
- **Create joint use agreements:** Opening facilities outside of school hours can provide a safe and familiar place for students and their families to be active
- Involve children in **planning**.
- **Celebrate:** celebrate activity holidays.

3.15.7.1. Walking School Bus - walking school bus is a group of children walking to school with one or more adults.

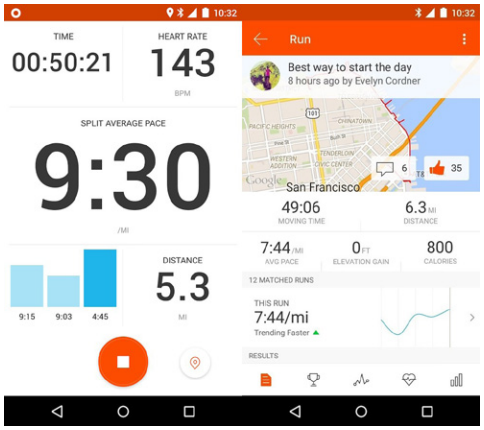
GET YOUR GAME ON (USA)
A flexible, free online framework to help schools and parents create healthier learning environments for kids and communities to thrive. A 3-year study of 19 schools and 12,000+ students in the Chicago area demonstrated the positive impact of Game On as an effective model for school health programming.
See more: https://www.actionforhealthykids.org/game-on-program/

BEAT THE STREET
A program that encourages students to walk by using transponders and key cards to count trips taken. Students compete against other schools to see who can get the most trips.
See more: https://www.beatthestreet.me/

SHAPE UP EUROPE (Europe)
A pilot project on how changing the school environment can promote physical activity and healthy eating and prevent obesity. The aim of the project is to research and develop innovative strategies to deal with the complex issue of obesity and overweight among young people. The key elements in the project are: A dialogue-oriented and participatory approach (as opposed to 'top down' as well as to 'bottom up') with the focus on the interplay between professionals and young people, where young people's own concepts and concerns make up important drivers for the processes.
See more: https://pure.au.dk/portal/en/projects/shape-up--towards-a-european-school-network-to-impact-the-determinants-of-child-obesity-at-the-community-level(ccbbe076-17c4-4ec2-bac5-e22da8060058).html

3.15.7.2. Beat the Street logo

3.15.7.3. Wooden Viking Ship Playground made during Shape Up Europe in Bonn



3.15.8.1. Strava interface

Applications may help in promoting active lifestyle in various ways. Firstly, they maybe be used as tracking devices, that allow people to measure how much distance they covered, what was their speed or pulse, how many push-ups somebody did, etc. Secondly, they are a tool for connecting people: making rankings that allow people to compare themselves to others but also finding a jogging partner or a tai chi group. Thirdly, they are used for sharing information: providing instructions about the most suitable training plan, most popular jogging or biking routes, etc. Apps may also be used by cities or city activists to spread information about their activity-oriented events or programmes, or gather data.

- **Explore:** there are loads of applications which could make your training better: give you important information, find training group or partner, search for the most interesting paths
- **Use what you already have:** smart phones have a lot of functions that may be used for sport: GPS, timer, music players, heart rate monitor.
- **Check event websites:** lots of events have their own applications, which offer interesting features that may be useful not only during the event but also afterwards

3.15.8.2. Cycle for Gdańsk poster

STRAVA
Appliaction that is used for tracking running, cycling and swimming. It allows its users to compare their performance over time, compare themselves to other users, map their routes and share them with other users, join clubs or brands, teams and friends for activities and growing communities. Moreover, the app is collecting data and creates "heat maps" that show the most popular running/cycling paths in the city.
See more: https://www.strava.com/

ACTIVY APP, KRĘĆ KILOMETRY DLA GDAŃSKA (eng Cycle for Gdańsk) (Gdańsk, Poland)
Cycle for Gdańsk is a cycling game taking place in September and October. It is possibly made by the „Activy" app, which counts the distance covered while driving a bike. The app makes a ranking for inhabitants of the city (in different categories: individuals, companies, districts). The winners in each category get awards.
See more: https://www.gdansk.pl/wiadomosci/krec-kilometry-dla-gdanska-i-wygrywaj-na-najaktywniejszych-czekaja-nagrody,a,152692

GO VIBRANT'S MILLION STEP NEIGHBOURHOOD CHALLENGE (Cincinnati, USA)
Go Vibrant's Million Step Challenge is competition among neighbourhoods in Cincinnati. The neighbourhood that can log the most steps wins and gets a prize (e.g. donation for park infrastructure). It is possibly made by an application that counts steps of inhabitants of neighbourhoods and makes a ranking of most active neighbourhoods.
See more: http://www.govibrant.org/stepup/

15. MOTIVATION AND EDUCATION
15.9. Social Groups, Clubs and Activities

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Social media and applications make it easier for people of similar interests to connect. For example, various sport groups are created on Facebook. Those groups organise group training sessions, share information about healthy training regime, sometimes hire a professional trainer together. Moreover, activity groups are often sponsored and organised by popular sport brands as a form of marketing. For participants, those groups serve not only as a motivation for staying fit, but also as an important part of social life and may be used as a way of combating loneliness in the cities.

- **Look around:** lots of groups (even for uncommon sports) are already existing and are happy to welcome new members.
- **Check on social media:** on websites such as Facebook, there is lots of activity. groups offering advice, exercises and group training sessions (online or in the physical world)
- **Start your own group:** You can organise it with your friends or do it on social media, invite strangers and get to know new people.
- **Invite friends.**
- **Involve neighbours:** joining a sport group is a perfect way to meet new people, especially in a new place.
- **Promote local activities:** share them on social media, talk to your friends and neighbours, put up posters in the area etc.

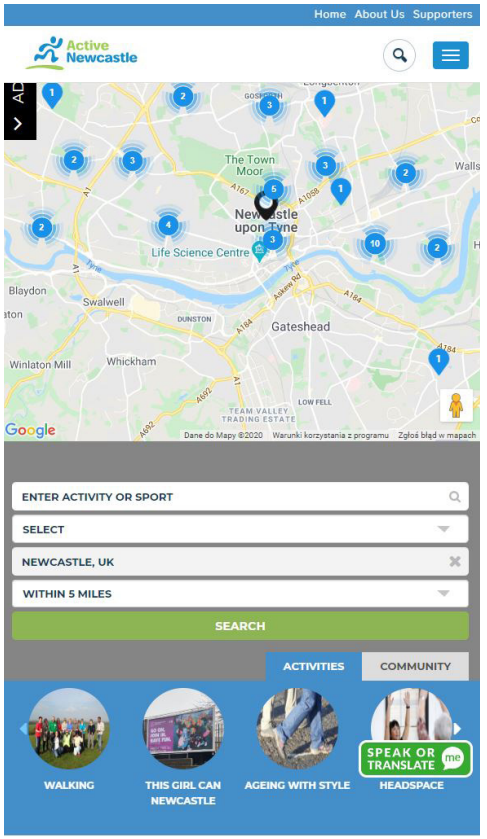
3.15.9.1. Slow jogging Olsztyn

SLOW JOGGING OLSZTYN (Olsztyn, Poland)
Group that joins slow jogging enthusiasts form Olsztyn: they organize trainings together share the best routes and exchange useful information.
See more: https://www.facebook.com/slowjoggingolsztyn/

I'M RUNNING IN TRICITY (Polish: Biegam w Trójmieście) (Gdańsk, Poland)
Facebook group that organizes group running sessions in Gdańsk and exchanges articles about running.
See more: https://www.facebook.com/groups/bieganie.trojmiasto/

ACTIVE NEWCASTLE (Newcastle, England)
Website informing about various physical activities and groups in New Castle. There is an interactive map, showing location, time basic info and links about those activities.
See more: https://www.activenewcastle.co.uk/about-us

JOIN
JOIN is a free app that can be used for preparing your cycling rides, exploring nearby routes and meeting new cycling friends. You can choose between thousands of outdoor cycling routes around the world, edit them if necessary and turn them into a ride. You can also join groups, teams, and friends in rides.
See more: https://join.cc/



3.15.9.2. Active Newcastle, interactive activity map

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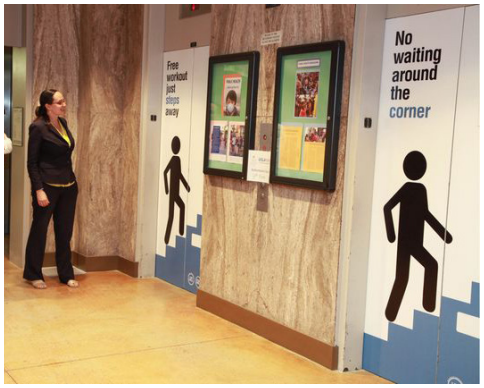
15. MOTIVATION AND EDUCATION
15.10. Signs Encouraging Movement



3.15.3.1. Signs encouraging stair-climbing.

Signs serve as short, simple, often graphic way of conveying information. The role of signs in activating citizens is to encourage them to perform a simple activity or choose a healthier option (for example use stairs instead of lift, walk instead of taking a bus, etc.), give direction or provide more complex information.

- **Use signs to encourage people to move spontaneously**, for example signs informing how many calories going up the stairs burn.
- **Make signs informing people about the distance they covered** – this is useful for sport, for example running, but also as motivation.
- **Signs should be aesthetically pleasing,** as they are a part of visual identification of the path, but also organization/ event/ people which provide them.
- **Make staircases and potential activity spots more visible and aesthetically pleasing** – visual attractiveness may improve the chances of people using them.

3.15.10.2. Calorie-counting stairs in japanese subway

3.15.10.3. Strava signs in Ireland

ACTIVE DESIGN GUIDELINES - PROMOTING PHYSICAL ACTIVITY AND HEALTH IN DESIGN (New York City, USA)
Guidelines recommend signs that encourage people to be active (e.g. to take the stairs instead of the lift) and design that promotes activity (encourages walking between destinations, using stairs instead of lifts, designing accessible and pleasant activity spots e.g. stairs, exercise rooms, shower rooms, bicycle storage, or plazas)
See more: https://centerforactivedesign.org/dl/guidelines.pdf

STRAVA ROAD SIGNS (Ireland)
Cyclists are able to anticipate the beginnings and ends of Strava segments long before they reach them in Clare County, Ireland, thanks to new signposts installed by the county. The signposts are marked with Start and Finish badges emblazoned with the Strava logo; starting signposts also offer information about distance, grade, altitude and max gradient.
See more: https://www.bicycling.com/rides/a20036272/ireland-embraces-strava-in-a-big-way-with-new-road-signs/

UNIVERSITY OF CALIFORNIA (Los Angeles, California, USA)
At UCLA, programs to help faculty, staff and students incorporate movement into their daily routine have been launched under the Healthy Campus Initiative. The initiative aims to foster a culture of mental and physical health and wellness by providing new and interesting approaches to exercise, mental health and healthy eating. Since 2013 Healthy Campus Initiative has provided funding for 174 projects, including student groups, research studies, staff and faculty projects, and a multitude of health and wellness-related events and activities.
See more: https://newsroom.ucla.edu/stories/simply-moving-30-minutes-a-day-can-lower-your-health-risks

16. INCLUSIVENESS
16.1. Providing Spaces for Different Age Groups

D

It is important to provide active spaces for all age groups. Once accustomed to active lifestyle, children will continue to live actively for the rest of their lives. On the other hand, active elderly will be healthier and less lonely (research shows that most activities are also connected to social interaction), which is crucial in the age of loneliness crisis. Adults need sport to stay healthy and provide for their families. Active lifestyle is beneficial to residents, but also municipalities - researchers have proven that promoting healthy lifestyle and making it accessible is financially rewarding for cities, as it reduces healthcare expenses (US$1.6 billon healthcare savings across the 4 ACW cities according to Active Citizens Worldwide Annual Report 2019).

- **Provide active space for adults near playgrounds:** (e.g. outdoor gym) this way parents or grandparents can get active while watching their children.
- **Organize sport events for all ages** – especially for people over 50, as this group is often overlooked when it comes to sport rivalry.
- **Organize physical activities and spaces for children near their homes**, so that they could enjoy physical activity without their parents' supervision.
- **Design without barriers:** make sure that there are no physical barriers making it impossible for older people or children to get active.

880CITIES (Toronto, Canada)
Non-profit organization specialising in designing cities for all. It is best known from its belief that if everything we do in our public spaces is great for an 8 year old and an 80 year old, then it will be great for all people.
See more: https://www.880cities.org/

DO YOU WANT TO PLAY WITH US? (Saint Andreu de la Barca, Spain)
A program that offers physical activity close to home to children 6–12 years old: 60 minutes of active games led by an instructor in an open-air municipal areas marked by a common logo (2008).
See more: http://www.euro.who.int/__data/assets/pdf_file/0012/99975/E91883.pdf

ALL AGES AND ABILITIES BIKE NETWORK (Victioria, Canada)
Victoria is a city of 80,000 residents at the southern tip of Vancouver Island. Taking advantage of its mild, snow-free climate, the City has set a bold vision to develop a comprehensive bicycle network for people of all ages and abilities. Over 1700 survey responses were collected throughout the campaign.78% of the respondents agreed that the proposed bike network would connect them to the places they want to go. 70% agreed that they would bike more once the network is built. Residents were also asked for input and ideas on specific corridors that were proposed in the bike network to help the designers.
See more: https://www.880cities.org/portfolio_page/biketoria/

3.16.1.1. 880 Cities logo

3.16.1.2., 3.16.1.3., 3.16.1.4. All Ages And Abilities Bike Network

D

16. INCLUSIVENESS
16.2. Gender Inclusiveness

3.16.2.1. Union Cup Dublin

According to Active Citizens Worldwide Annual Report 2019, people of lower socio-economic status, ethnic minorities and women are prone to lower activity levels. Women are less active because of various cultural reasons, childcare that is mostly performed by women, but also lack of safety in some active spaces. Sexual minorities are also prone to being less active, what is reflected by a number of sport events dedicated exclusively for them.

- **Organise special training groups and events for women.**
- **Provide activity spaces near playgrounds,** so that mothers can be active while watching their children
- **Make exercise spaces more safe:** (e.g. improve lighting) One of the most important reasons of lower activity levels among women is lack of safety in exercise spaces or on the way to them.

3.16.2.2. Guinness Gates Transformed To Support 2019 Union Cup In Dublin

3.16.2.3. The Vhi Women's Marathon

WALKING PROGRAMME (Stockholm, Sweden)
For almost 10 years, the municipality has been offering freewalking tours led by trained volunteers. The walking groups primarily attract women aged 55 years and older; many have never exercised before. Participants find walking in groups to be sociable, safe and stimulating.
See more: http://www.euro.who.int/__data/assets/pdf_file/0012/99975/E91883.pdf

UNION CUP (Dublin, Ireland)
Europe's biggest LGBT+ inclusive rugby tournament. Union Cup is a biennial LGBT+ inclusive rugby tournament. The aim is to make sporting accessible for LGBT individuals to promote health and wellbeing through physical activity. This event was supported by many companies in Dublin including Guinness, which has transformed its iconic gate for this occasion, painting it in rainbow colours.
See more: : https://unioncupdublin.ie/

THE VHI WOMEN'S MINI MARATHON (Dublin, Ireland)
An annual 10k charity road race, occurs each June bank holiday weekend in Dublin and is the largest Women's event of its kind in the world. The women decide themselves which charity they will support and many local causes gain vital funds from the event. It is now the largest one-day charity event in the country.
See more: : https://www.vhiwomensminimarathon.ie/about-race

WOMEN RUN BLOG (Polish: Kobiety Biegają) (Poland)
Blog about running and other linked issues: diet, body care, etc. Written for women and by women.
See more: http://kobietybiegaja.pl/

16. INCLUSIVENESS
16.3. Activity in Illness And Disability

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According to research from USA, adults with disabilities are three times more likely to have heart disease, stroke, diabetes, or cancer than adults without disabilities. Aerobic physical activity can help reduce the impact of these chronic diseases, yet nearly half of all adults with disabilities get no leisure time aerobic physical activity. For important health benefits, all adults should do at 150 minutes a week of moderate-intensity aerobic physical activity Some organizations offer mild exercise groups, who train together under guidance of trained volunteer or professionals. Different kinds of walks are the most popular, as it is one of the easiest, safest and healthiest sports. Special barrier-free routes are established. What is more, those groups provide opportunities for people suffering from the same ailments to meet and support each other. Another group of activities are charity events that apart from making people more active, are also an effective way of fundraising.

- Choose **barrier-free** venues.
- Choose **mild exercises,** which are safe and do not require a lot of stamina.
- Consider if you **need guidance or medical help**. Adults with chronic conditions or symptoms should be under the care of a health care provider. People with chronic conditions can consult a health care professional or physical activity specialist about the types and amounts of activity appropriate for their abilities and chronic conditions.
- **Walking** is one of the easiest, safest and healthiest sports, which is often recommended for people suffering from illnesses .
- **Some organizations offer mild exercise group activities**, who train together under guidance of trained volunteer or professionals.
- Events for people who are suffering from illnesses sometimes include **fund-raising.**

3.16.3.1. Walking for health logo.

3.16.3.2. Walking for health walk.

WALKING FOR HEALTH (UK)
Health Walks are short, safe, social, fun and accessible low-level walks led by trained volunteers. They include a number of specialised walks: cancer friendly walks, dementia friendly walks, buggy walks, etc.
See more: https://www.pathsforall.org.uk/walking-for-health

COLOUR DASH (Ireland)
Colour Dash is the Irish Cancer Society's 5km family fun run! Participants run, walk or jog as they are pelted with powdered paint. Each km represents a different cancer as well as celebrating cancer survivorship.
See more: https://www.cancer.ie/ways-to-help/fundraise/colour-dash

3.16.3.3. Colour Dash (Ireland)

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16. INCLUSIVENESS
16.4. Equality

3.16.4.1., 3.16.4.2, 3.16.4.3. Exercise equipement in in South Korea : Riverside gym zones consisting of various fitness machines are regularly installed under elevated expressways and along the bike and walking trails.

According to Active Citizens Worldwide annual report, people of lower socio-economic status, ethnic minorities and women are prone to lower activity levels. On the other hand, sport may be a way to help people in various ways: fight addiction, obesity, help people from different ethnic backgrounds to assimilate, etc. It is important to make healthy lifestyle accessible to people of lower economic standards. What is more, is that researchers have proven that promoting healthy lifestyle and making it accessible is financially rewarding for cities, as it reduces healthcare expenses (US$1.6 billon healthcare savings across the 4 ACW cities).

- **Provide free active spaces** (e.g. sport equipment in public parks)
- **Organise free sport exercises for children**
- **Design spaces for people of diverse cultural background:** e.g. mixing skatepark and a traditional plaza, introducing elements characteristic for immigrants' native countries

EQUALITY IN ACTIVE LIVING (Horsens, Denmark)
City programme consisting of 4 projects. In the **Leisure Time Passport** project, two leisure time and physical activity counsellors will undertake, in cooperation with local schools, to spot children and youth living in families with various forms of addictions and make sure that they are integrated into some form of organized sport (including paying the necessary fees and providing transport). The counsellors will develop the opportunities for sports and active living within schools and sports associations to better fit the needs of the target group. The project is cooperating with a local volunteer group with exactly this kind of experience, also in terms of ethnic youth. In the **Power Centre** project, a local association in charge of a community centre provided by the Municipality for clean drug addicts, many of whom are very young, will develop opportunities for physical activity and healthy diet for the target group over four years. People 16–25 years old are a priority within the project. The project has a four-year duration, as sustainability and motivation are crucial dimensions. Physical activity will be part of the therapy offered to the young addicts. The **Movement is Cool** project offers three-month courses on physical activity and healthy diet to severely overweight children and their families. In the **Sports are Fun!** project, local volunteers offer an opportunity for physical activity twice a week for children under 12 and their families in a disadvantaged housing estate (many of whom are from ethnic families with no tradition for sports).
See more: http://www.ubcwheel.eu/index.php/gpdp:gpdb/article/978

EXERCISE EQUIPMENT IN PUBLIC SPACES (South Korea)
In South Korea exercise equipment is often installed in public spaces—everything from weights to manually operated stair climbers. They're free and open to the public 24 hours a day, 7 days a week. Once established, they are low-cost to maintain.
See more: https://participatoryplanning.ca/sites/default/files/upload/document/tool/designed_to_move_.pdf

16. INCLUSIVENESS
16.5. Conflict Solving

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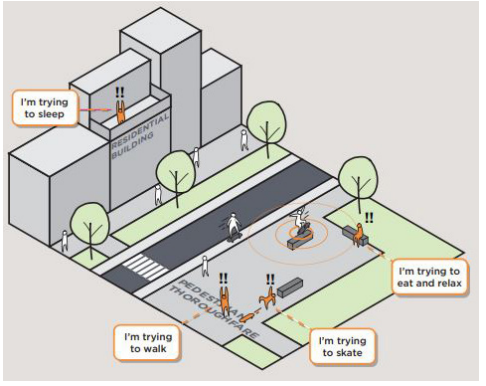
Different needs of people using the public space are often a cause of conflict. This includes people performing physical activities, as some actions are potentially dangerous or detrimental to other people. For example, skaters are often disliked because of the fact that skating is noisy, some pedestrians are afraid of cyclists, who are too fast and may cause dangerous accidents. On the other hand, cyclists often oppose to other people (e.g. skaters, runners, scooter drivers etc.) using bicycle lanes, because they are too slow. Some of those issues may sometimes be resolved by design and careful planning.

- **Form activity "clusters"** for similar activities which may be performed together without conflict. Group loud activities. Proximity to other activity areas, complementary activities, demographics and uses.
- **Identify spaces suitable and unsuitable for planned type of activities:** using deterrent infrastructure where needed.
- **Use signage, materials and design** that clearly identify the rules of using shared space
- **Educate people** about the rules of using space
- **Establish preferred times of use** for disturbing kind of activities: e.g. noisy
- **Create buffers** between different kinds of activities, that may otherwise cause conflict

3.16.5.1. Charlotte Ammundsens Plads



3.16.5.2. Confilcts between skaters and non-skaters in public space, graphic from Skate Melbourne Plan.

CHARLOTTE AMMUNDSENS PLADS (Copenhagen, Denmark)
A murky passageway transformed into a public space with different areas: classical square, ball court, playground and skatepark. Charlotte Ammundsens plads has been well accepted from day one and the new square is now a meeting point for Copenhageners of all age groups and from all walks of life. The interaction between raw 'street'-culture and classical landscape architecture has attracted a lot of attention and in December 2008, 3 months after the opening, the square received the Initiative Award by The Association for Beautification of the Capital. Different types of activities are clearly divided into zones by physical barriers.
See more: http://landezine.com/index.php/2011/05/charlotte-ammundsens-plads-by-11-landskab/

SKATE MELBOURNE PLAN (Melbourne, Australia)
Urban masterplan for developing Melbourne as a skate-friendly city. Skateboarders are often perceived as "trouble- makers" by the rest of inhabitants. The aim of the masterplan is to resolve this conflict by introducing a number of spatial rules of developing skateboarding spaces.
See more: https://participate.melbourne.vic.gov.au/skate

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16. INCLUSIVENESS
16.6. Participation in Planning

3.16.6.1. Lemvig Skate Park

3.16.6.2. Interviews during testing woonerf prototype on 3 Maja street in Dąbrowa Górnicza

3.16.6.3. Children's Trail Programme

To determine the specific intervention that would encourage/ enable them to be physically active, people need to be asked. Participation may be introduced on various stages: checking if and what kind of activity space is needed, choosing locations, choosing variants of projects to be realised, collecting feedback after making a prototype, participatory design. It's important to include all groups of residents in the discussion, so that the final intervention would satisfy everyone.

- **Conduct surveys and town meetings**– to determine the specific intervention that would encourage/ enable them to be physically active, people need to be asked.
- **Involve people of all ages** to determine their needs.
- **Conduct workshops.**
- **Use prototypes** to check how things would work in the area and to collect feedback form future users .
- **Choose the level of citizen involvement in planning carefully** – in many cases it is necessary to gradually accustom citizens to participatory practices in order to arouse interest and rise activism levels(look up the ladder of participation). Some communities are not ready for partnership and need to start by small-scale practices, like taking part in a small-scale participatory-budgeting project.

LEMVIG SKATEPARK (Lemvig, Denmark)
Participation in choosing location and design process, including functional programming.
See more: https://www.effekt.dk/lsp

WOONERF PROTOTYPE ON 3 MAJA STREET (Dąbrowa Górnicza, Poland)
Before changing street to woonerf municipality decided to check this solution by making a prototype. During the testing period the number of pedestrians on the street has risen by 50%. In the end, the residents liked the concept so much, that the municipality decided that the new traffic organization and prototype furniture were going to stay until the realization of the final project.
See more: http://urbnews.pl/sposob-zamienic-droge-ulice-miejska-oraz-zyc-dlugo-szczesliwie-pomimo-wywolanych-konfliktow/

CHILDREN'S TRAIL PROGRAMME (Sandnes, Norway)
Involving children in landuse planning: Children identify and register play areas, shortcuts and reference areas for schools and nurseries. These must be used in all planning activities to safeguard important play areas (2006) The Children's Trail programme has enabled children to identify and register 1265 play areas, 550 short cuts, 130 reference areas for schools and 185 reference areas for nurseries. These registered areas have been entered on digital maps and air photo maps and are required to be used in all planning activities to safeguard important play areas.
See more: http://www.metamorphosis-project.eu/case-studies/involving-children-land-use-planning-sandnes-norway

16. INCLUSIVENESS
16.7. Design for All and Proper Mix

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It's important to have the possibility to perform various activities at the same spot. Families or other groups often come to the recreational spaces together but want to do different kinds of activities. As mothers with baby carts want to simply walk or run around, their younger children would enjoy going to the playground or a skatepark while grandparents would prefer to relax on a bench or work out in the outside gym. Having all these activities in one place enables everyone to be active at the same time and makes them more attractive.

- **Design for people of all ages** – different kinds of infrastructure are useful for children, adults and the elderly
- **Mix activities:** e.g. joining plaza, playground, basketball court and a skatepark provides possible activities for all age groups.
- **Provide active space for adults near playgrounds:** (e.g. outdoor gym) this way parents or grandparents can get active while watching their children.
- **Design spaces for people of diverse cultural background:** e.g. mixing skatepark and a traditional plaza, introducing elements characteristic for immigrants' native countries
- **Design without barriers:** make sure that there are no physical barriers making it impossible for older people or children to get active.

3.16.7.1. Superkilen

3.16.7.2. Superkilen

3.16.7.3. Neill Street Reserve

LEMVIG SKATEPARK (Lemvig, Denmark)
Urban plaza connected with skate park, street basketball courts, playgrounds and picnic spots.
See more: https://www.archdaily.com/470077/lemvig-skatepark-effekt

SUPERKILEN (Copenhagen Denmark)
It has one overarching idea that it is conceived as a giant exhibition of urban best practice – a sort of collection of global found objects that come from 60 different nationalities of the people inhabiting the area surrounding it. The future visitors of the park have helped to select the objects.
See more: https://www.archdaily.com/286223/superkilen-topotek-1-big-architects-superflex

NEILL STREET RESERVE (Melbourne, Australia)
A neglected and disused section of road in an inner-Melbourne suburb was redeveloped into neighbourhood public open space known as the Neill Street Reserve between 2014 and 2015. The project provided local residents with two new multipurpose courts, a new community square and the municipality's first permanent outdoor table-tennis table. Robust design detailing was also added to accommodate skateboard and BMX use, in recognition of the recreation value of these activities and the inevitability of them taking place.
See more: https://landezine-award.com/grey-to-green-neill-street-reserve/

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16. INCLUSIVENESS
16.8.Multigenerational Integration

3.16.8.1. Alex Stafie, 5, and Wallace Scherer, 92, make sack lunches for the homeless during an activity at Providence Mount St. Vincent Intergenerational Learning Center

3.16.8.2. Seniors and children during filming of Old People's Home For 4 Year Olds Documentary

Multiple generation of families used to live in very close proximity and cared together for their young, old and sick members. However, nowadays generations are often separated, depriving children of the possibility to interact with their grandparents. Society is more generationally stratified, making the elderly suffer from loneliness. According to one study from the University of California San Francisco, 43% of seniors report feeling lonely and that identifying as lonely comes with a 59% higher risk of declining health and a 45% higher risk of death. At the same time, another study from Stanford suggests that aging adults are one of the best groups to spend time with young children, because they have the patience to do so and can provide the kind of stimulation that young children need.

- **Our society is more generationally stratified than ever before**, making the elderly feel particularly alienated
- **Aging adults are one of the best groups to spend time with young children** as they have the availability and patience to do so and can provide the kind of stimulation that young children need to thrive.
- Day care centers are increasingly seeking to institutionalize cross-generational interactions in what is called "intergenerational care."
- Researchers found out that young children who participated in intergenerational care had **more advanced motor and cognitive skills, higher developmental scores, and more advanced social and emotional competencies than their non-intergenerational peers.**
- Older adult participants of intergenerational care reported **lower levels of loneliness, reduced agitation, and improved health, among other findings.**

MOUNT INTERGENERATIONAL LEARNING CENTER (Seattle, USA)
The Intergenerational Learning Center is an award-winning child care program in West Seattle. Both planned and spontaneous activities and programs for children take place throughout the building and campus which is also home to more than 400 older adults. Planned activities includemusic, dancing, art, lunch, storytelling or just visiting. This enhances the opportunities for children and people of all ages to have frequent interaction and is an integral part of the Mount's intergenerational community.
See more: https://www.theatlantic.com/education/archive/2016/01/the-preschool-inside-a-nursing-home/424827/ https://washington.providence.org/services-directory/services/i/intergenerational-learning-center

OLD PEOPLE'S HOME FOR 4 YEAR OLDS (UK)
A seven-episode series telling the story of how one of the UK's biggest retirement villages opened a nursery where the classmates' ages ranged from three to 102. Common activities included a sports day.
See more: https://www.channel4.com/programmes/old-peoples-home-for-4-year-olds

17. SAFETY
17.1. Eyes On The Street and Supervision

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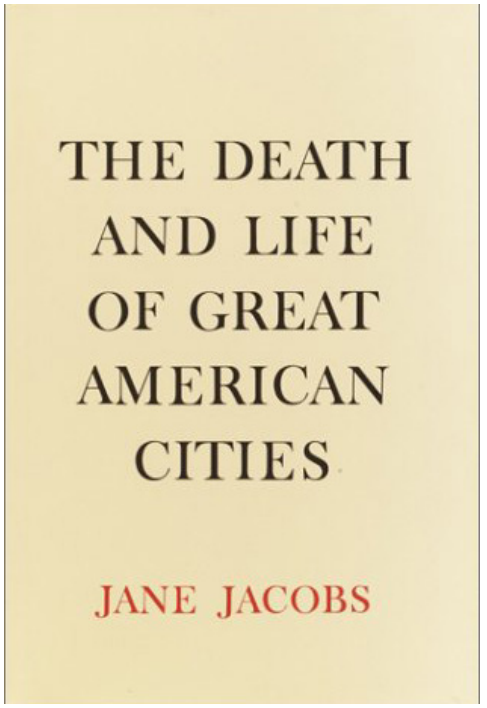
Urban security is not simply a matter of policing: it is directly related to the quality of public spaces and their ability to attract people onto the streets. In 1961, writer and social activist Jane Jacobs studied this relationship and developed the concept of "eyes on the street". According to her work, one of the main characteristics of a successful urban public space is that people feel safe and secure in public spaces, despite being among complete strangers. The logic is simple: the more people in the streets, the safer they become. Their "eyes on the street" provide informal surveillance of the urban environment and make others feel safe.

- **Create pleasant street:** things to consider: street width, pavement width, presence of trees, functional zone on the sidewalk (bicycle parking, lamp posts, benches
- **Contact between buildings and the street**: facades facing the street should be „open" (with windows of appropriate size and the right functions: kitchens, living rooms), allowing the residents to observe the street.
- **Create active groundfloors:** active functions facing the street: shops, cafés, workspaces, kitchens and living rooms. A hybrid zone (or façade garden) can create privacy for ground floor dwellings, and they enhance ownership of the street. The design and appearance of the ground floor should appeal to the pedestrian, something Jan Gehl calls the 5 km/h architecture.
- **Create blocks with human scale and a variety of uses**: the size of the urban blocks should have a human scale, both in length and height.



3.17.1.1. "The Death And Life Of Great American Cities" by Jane Jacobs cover

"THE DEATH AND LIFE OF GREAT AMERICAN CITIES" JANE JACOBS
1961 book by Jane Jacobs, advocating for mixed use development and walkable streets, with the "eyes on the street" of passers-by helping to maintain public order.

ANALYSIS OF URBAN VIBRANCY AND SAFETY (Philadelphia, USA)
A Report that attempts to begin a quantitative analysis of Jane Jacobs' theory by bringing together publicly available data sets related to crime, business activity and the built environment. In order to test the "eyes on the street" notion, the authors — three statisticians at the Wharton School at the University of Pennsylvania and an architect — investigated the correlations between public safety and population density, population count, zoning, business activity, and business hours.
See more: https://nextcity.org/daily/entry/philly-streets-get-test-of-jane-jacobs-eyes-on-the-street-effect

THE CITY AT EYE LEVEL
The City at Eye Level is a worldwide program focusing on design, user research and analysis of public spaces, specializing in city at eye level experience.
See more: https://thecityateyelevel.com/about/

3.17.1.2. A lively street

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17. SAFETY
17.2. Play Areas Around The Corner

3.17.2.1. Pocket parks in Cracow design process.

Numerous studies have linked proximity of parks and other recreational facilities to higher levels of physical activity. Travelling to the place of activity, shouldn't take more time than the activity itself. That is especially important for children, that have limited possibilities of transportation, often need to be accompanied by parents and need activity the most.

- **Proximity of parks and other recreational facilities is linked to higher levels of physical activity and lower obesity levels.**
- Health effects of living near the parks are the most visible for groups living within **short walking distance from the park (400m)** and decrease significantly over the next distances.
- **Make sport facilities and active spaces accessible and safe for children,** so that they could safely reach those places, without their parents supervision.
- **Locate playgrounds in the areas that may be seen from windows** of residential buildings.
- Organise **close to home open-air activities** for children.

3.17.2.2. Pocket Park in London's Store Street- a part of The London Festival of Architecture's Love Your Street." Timber structure was erected to invite people to keep on the grass.

DO YOU WANT TO PLAY WITH US? (Saint Andreu de la Barca, Spain)
A program that offers physical activity close to home to children 6–12 years old: 60 minutes of active games led by an instructor in open-air municipal areas marked by a common logo (2008)
See more: http://www.euro.who.int/__data/assets/pdf_file/0012/99975/E91883.pdf

POCKET PARKS (Kraków , Poland)
In Kraków 18 new pocket parks will be established. Pocket parks are parks that are smaller than 5000m2. The idea is that the nearest park, that is the basic space of contact with nature and recreation shouldn't be further from your flat than 15 minutes' walk.
See more: : https://portalkomunalny.pl/w-krakowie-powstanie-18-parkow-kieszonkowych-366919/

PROXIMITY TO URBAN PARKS AND MENTAL HEALTH
A study showing that mental health is significantly related to residential distance from parks. The number of visits and physical activity minutes are significantly and independently related to distance.
See more: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4049158/

PROXIMITY OF PARKS AND SCHOOLS IS ASSOCIATED WITH PHYSICAL ACTIVITY IN ADOLESCENT GIRLS
A study on the association between proximity to parks and schools and moderate to vigorous movement in adolescent girls. Its findings support the claim that the built environment may facilitate healthy behaviors, as girls living closer to parks showed higher activity levels.
See more: https://activelivingresearch.org/proximity-parks-and-schools-associated-physical-activity-adolescent-girls

17. SAFETY
17.3. Exercising Together

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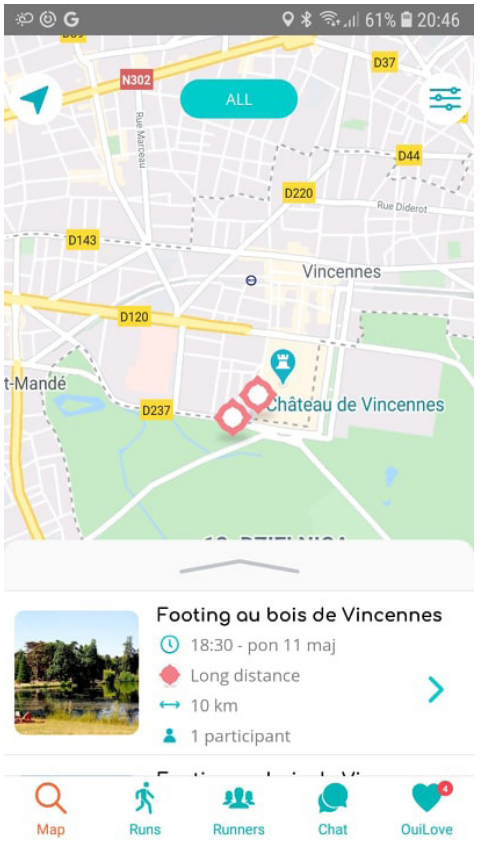
Exercising together makes people feel safer but is also more motivating and entertaining than training alone. People train with their friends or groups found on social media or special applications. Groups are sometimes accompanied by sports coaches or trained volunteers, who help them to polish their skills and ensure that their training is safe. Lots of group training sessions end with a social get together, a great way to meet new people.

- **Look for training partners on the internet, social media and with special apps:** They are usually free and sometimes have a lot of additional useful functions (training instructions, timers, tracking devices, etc.)
- **Take part in mass participation events:** they are a great occasion to socialise and meet potential training partners.
- **Exercising together is safer.** For people with special needs, for example people suffering from illness, training together is especially important, as there is someone that can react in case of emergency.
- **Joining exercising groups is a great way to socialize and meet new people.** Research shows that individuals participating in sport generate more positive social interaction.



3.17.3.1. Oui Run app screenshot

WALKING PROGRAMME (Stockholm, Sweden)
For almost 10 years, the municipality has been offering free walking tours led by trained volunteers. The walking groups primarily attract women aged 55 years and older; many have never exercised before. Participants find walking in groups to be sociable, safe and stimulating.
See more: http://www.euro.who.int/__data/assets/pdf_file/0012/99975/E91883.pdf

OUIRUN (France)
OuiRun connects you with the most fitted runners nearby. Its matching algorithm matches runners by their level and speed. The runners can also add a photo and a short description.
See more: https://ouirun.com/home/

SLOW JOGGING OLSZTYN (Olsztyn, Poland)
Group that joins slow jogging enthusiasts form Olsztyn: they organize trainings together share the best routes and exchange useful information
See more: https://www.facebook.com/slowjoggingolsztyn/
See more: https://www.facebook.com/slowjoggingolsztyn/

I'M RUNNING IN TRICITY (Polish: Biegam wTrójmieście) (Gdańsk, Poland)
Group that organizes group running sessions in Gdańsk and exchanges articles about running.
See more: https://www.facebook.com/groups/bieganie.trojmiasto/

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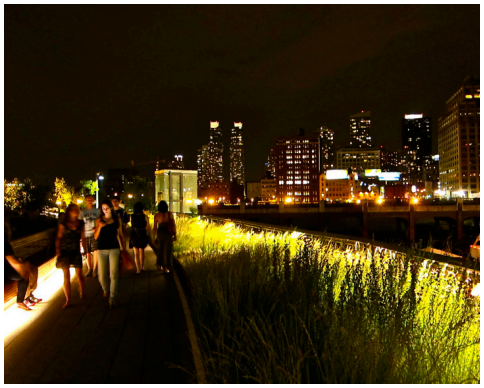
17. SAFETY
17.4. Lighting



3.17.4.1. New York High Line at night

3.17.4.2. Basketball court opened in the night.

Lighting is an important element in sport facilities, as it guarantees safety and allows them to be used in late hours when there is no natural light. In Phoenix, Arizona, basketball courts and other recreation facilities are kept open late (until 2 a.m.) in the summertime. When this happens, reports of juvenile crime drop by up to 55 percent. Phoenix achieved this for a cost of just 60cents per participant. Another study of adolescent girls in the USA suggested that providing streetlights in recreation areas contributed to increased activity levels.

- Opening up parks, playgrounds and exercise facilities at the evening and at night is a r**elatively cheap and cost-effective way to improve accessibility** of sport and recreation areas.
- Providing lights on sidewalks and active play **areas extends opportunities for physical activity into the evening.**
- **Sufficient lightning of recreation areas improves safety** and may contribute to increased activity levels and lowered crime rates.
- Accessibility to sport facilities in the evening may be measured by percentage of sport facilities (e.g. public parks, sport fields, etc.) open to public after the workday (6 p.m.) or after sundown, etc.

LONG OPEN HOURS OF BASKETBALL COURTS AND OTHER RECREATION FACILITIES (Phoenix, Arizona, USA)

In Phoenix, Arizona, basketball courts and other recreation facilities are kept open late (until 2 a.m.) in the summertime. When this happens, reports of juvenile crime drop by up to 55 percent. In the fall, these facilities revert back to their regular hours and crime reports go up again. At a cost of sixty cents per youth, late night recreation seems like a great option for expanded programming throughout the year.

See more: https://participatoryplanning.ca/sites/default/files/upload/document/tool/designed_to_move_.pdf

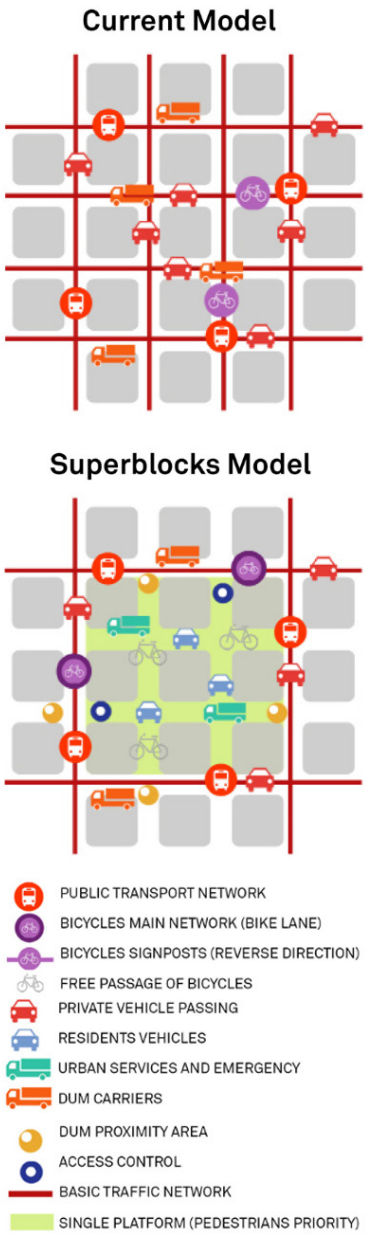
17. SAFETY
17.5. Injury Prevention

Faulty design may cause injuries and accidents. Sometimes, small interventions can improve safety. Traffic crashes claim more than 1.2 million each year and will be the world's fifth-largest cause of death by 2030 unless we improve road safety. The impact of these crashes falls disproportionally on cities in the developing world, with 90 percent of all deaths occurring in low- and middle-income countries. As urban populations grow, with more city dwellers using cars to get around, the risk rises for the most vulnerable on city streets: pedestrians, cyclists and motorcyclists.

- **Urban design that reduces the need for vehicle travel and fosters safer vehicle speeds**: mixed land uses, smaller blocks, ground-floor activities, and nearby public facilities that reduce overall exposure to traffic crashes from less vehicle travel.
- **Traffic calming measures that reduce vehicle speeds**: integration of speed humps, chicanes, chokers, refuge islands, traffic circles, shared streets, etc.
- **Safer crossings for all road users:** improve safety through reduced crossing distances, lead pedestrian intervals, refuge islands, etc. Each meter or yard shortened crosswalk distance can reduce pedestrian crashes by 6 percent.
- **A network of connected and accessible cycling infrastructure:** Reducing conflicts at junctions between cyclists and turning vehicles is crucial.
- **Safe pedestrian facilities and access to public spaces:** Provide quality space for pedestrians through sidewalks and street space, as well as access to parks, plazas, schools, and other key public spaces.
- **Safe access to mass transport corridors, stations, and stops**: improve access to transit, in part by avoiding physical barriers.

CITIES SAFER BY DESIGN
World Resources Institute report that shows how basic design principles can save lives on urban streets. The report covers measures that can reduce vehicle speed and traffic conflict, making walking, cycling and access to transit and public spaces safer. It introduces design principles, safety benefits, application suggestions and evidence for each measure. It also uses drawings and real-life case pictures to illustrate each design element and its application in context.
See more: http://publications.wri.org/citiessafer/

SUPERBLOCK (Barcelona, Spain)
The Spanish city of Barcelona has pioneered an innovative approach to managing traffic. Previously all residential blocks were surrounded by normal, busy streets. In superblock model, residential blocks (150m x 150m) will be grouped in 3x3 clusters (450x450m). Outside the superblocks, the city's n traffic is accommodated on streets with a maximum speed of 50km/h. Within the superblocks, cars are banned or restricted to 20km/h, priority is given to walking and cycling, and open space is reclaimed or created from parking.
See more: https://theconversation.com/superblocks-are-transforming-barcelona-they-might-work-in-australian-cities-too-123354



3.17.5.1. Superblock Model

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DESIGNING AND COMMUNICATION PRINCIPALS FOR CLIMATE-FRIENDLY PUBLIC SPACE

Planning and implementation principals which efforts are concentrated on designing sustainable, climate-change conform solutions for public spaces are becoming an inseparable part of urban practice worldwide. Due to a multiscale nature of biospherical changes, it is essential to not only focus of instruments that would cover current, local demand but also those that have a long-term, preferably global impact. The greatest challenge is to design and use those tools collaboratively, hence through participative, civic-centric engagement that would include non-experts.

The aim of this research project is to investigate planning and communication methodologies that would enable a participative transformation of the public spaces in regard to climate action. To enable a more applied approach the three following, pressing global warming challenges were chosen for the further analysis – air pollution, decrease of biodiversity and urban heat island effect.

The following chapter introduce the reader with a set of different information and exemplary measures can be undertaken both on individual and national/global level within the urban space to effectively build socio-spatial resistance in the time of climate change crisis.

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INTRODUCTION

The studies on combining the elements of dialog and participation with urban design practices have been increasingly gaining on importance in last few decades, especially considering the topics where socio-economic challenges of public and private interests require a greater attention and deeper alignment with local development agenda (cf. Mohammadi 2010, p. 2; Campbell 1997, p.234). The engagement of 3rd parties[1] into decision-making processes has been proven to help the governmental units in planning their household and investments more precisely and human-centric (cf. Spec 2016, p.10). Subsequently, such approach contributes to increase of the sense of individual responsibility, awareness of own influence on the surroundings and the better understanding of the core meaning of democratic values within the engaged community (Spec 2016, p. 7). Such approach "*triggers a new way of thinking and allows people to exchange values, concepts and practices, enabling cities to become spaces for engagement, regardless of size, density or complexity*" (European Commission 2020).

[1] i.e. citizens, companies, non-governmental organizations (NGO), cultural, education and research institutes, minority groups etc.

Involvement of diverse city stakeholders is especially important while dealing with current global challenges that cannot be dealt only on a governmental level or where the national policies make it impossible for municipalities to work on them without an additional support. To such situations belongs the climate change which needs all range of comprehensive actions beginning from individual to global level. According to an international survey conducted by Pew Research Centre on 26 countries, a half of them name the climate change as the most pressing global challenge in their country (cf. Poushter, Huang 2018). Nowadays (17 April 2020), in the times of corona virus crisis, it becomes more obvious how negative are the effects of lacking measures against the consequences of climate change regarding people's health. On instance, the 2020 study from Harvard University T.H. Chan School of Public Health that analyzed 3.080 counties in USA shows a high association between the higher level of PM 2.5 in the air, responsible for low air quality, and the death rate from corona virus disease (COVID-19) (cf. Wu et al. 2020, pp. 4-11). According to the authors the "*increase of only 1 g/m3 in PM2.5 is associated with a 15% increase in the COVID-19 death rate, 95% confidence interval (CI) (5%, 25%). Results are statistically significant and robust to secondary and sensitivity analyses. (..) A small increase in long-term exposure to PM2.5 leads to a large increase in COVID-19 death rate, with the magnitude of increase 20 times that observed for PM2.5 and allcause mortality*" (Wu et al. 2020, p. 2).

As the issues caused by climate change i.e. urban heat island, drought or flooding not only occur cumulatively but often effect from one another, it is even more urgent to focus on finding simple measures that would be implementable beginning from the individual le-vel. This is especially essential considering the fact that world's fastest population growth rates are and will be observed in developing counties (cf. Ronald Berger Trend Compendium 2017) where civic engagement is often poorly cited in the political dialogs. On the other hand, the participation practices undertaken in 1st world countries are mostly unregulated and vary extensively in regard to the niveau of influence on decision-making processes. It is observed though that practices with higher civic impact on the local agenda and the predictable action-cause engagement system raise the contribution rate towards collaborative planning (cf. Spec 2016, pp. 3-11). Therefore, a much wider

ABOUT THE RESEARCH

range of options that are proven to be effective in fighting against the climate-change as well as new participation and interstakeholder communication methods are needed to enhance the general awareness of an individual. Such approach would consequently help to pave the ground for more socially-inclusive and sustainability-driven urban development. According to Hackel, Sparkman (2018) "*each individual's choices, especially when amplified through social influence, help create a social environment ripe for political change*". On a greater scale, such actions will have a substantial impact on the global situation.

Aim of the research
The research project concentrates of finding the planning and communication methodologies that would enable a participative transformation of a climate-friendly public space.
The project type is categorized as exploratory research which allows the group to experiment with ideas and leave the conclusions open to further studies. In order to secure the scientific character of the work, the group undertook the polimethodological approach to derive the conclusions for the following objectives (themes for the research outcomes):

- **methodologies**: literature review (primary and secondary sources), empirical approach, applied approach derived from educational research,
- **objectives**: climate change, citizen engagement in urban planning and informal participation methods.

Research's approach complements also the **§6 (i)** from **New Delhi** work programme on of the **United Nations Framework Convention on Climate Change** (UNFCCC 1992 p.10) which recomments to "*seek input and public participation, including participation by youth and other groups, in the formulation and implementation of efforts to address climate change and encourage the involvement and participation of representatives of all stakeholders and major groups in the climate change negotiation process*". The reader is encouraged to study the whole handbook as well as to follow the efforts of UNFCCC and UN Habitat III as those institutions deliver a wide range of comprehensive tools for sustainable development.

Scope of the project
The project is divided into five phases where the first four (1-4) are a combination of theoretical and empirical methodologies and the last one (5) regards to applied approach.

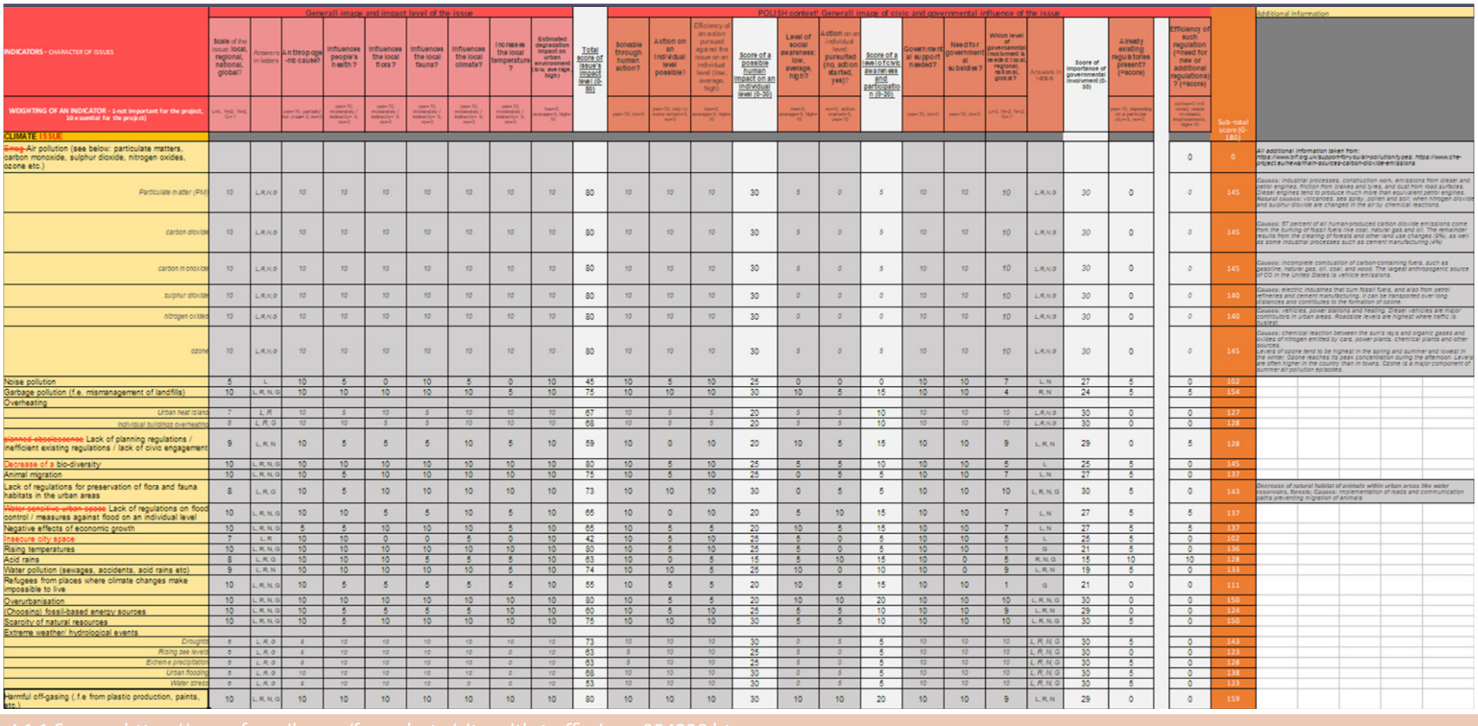
Phase 1: selection of three most pressing climate change issues that have an influence on a public space. **Participants:** all group members; **timeframe:** 12.2019 - 01.2020.
1A: Investigation of individually selected challenges through so called Issue Matrix with a scoring system (see: figure 2).
1B: closing voting of collected and pre-evaluated issues through a poll and selection of the final three issues (see: **Selected issues** on the next page).

Phase 2: Selection and analysis of best practices *(*case studies) done on an individual and national scale per each issue. **Participants:** students; **timeframe:** 02-03.2020

Phase 3: selection and analysis of global regulations/recommendations showing measures that can be done both on an individual and governmental level per each issue.

Issue I

Air pollution



INDICATORS - CHARACTER OF ISSUES	Generall image and impact level of the issue										POLISH context! Generall image of civic and governmental influence of the issue																Additional information
	Scale of the issue: local, regional, national, global?	Answers in letters	Antropogenic cause?	Influences people's health?	Influences the local flora?	Influences the local fauna?	Influences the local climate?	Increase the local temperature?	Estimated degradation impact on urban environment (low, average, high)	Total score of issue's impact level (0-80)	Solvable through human action?	Action on an individual level possible?	Efficiency of an action pursued against the issue on an individual level (low, average, high)	Score of a possible human impact on an individual level (0-30)	Level of social awareness: low, average, high?	Action on an individual level: pursuited (no, action started, yes)?	Score of a level of civic awareness and participation (0-20)	Governmental support needed?	Need for governmental subsidies?	Which level of governmental involvment is needed: local, regional, national, global?	Answers in letters	Score of importance of governmental involvement (0-30)	Already existing regulatories present? (=score)		Efficiency of such regulation (=need for new or additional regulations)? (=score)	Sub-total score (0-180)	
WEIGHTING OF AN INDICATOR - 1-not important for the project, 10-essential for the project)	L=5, R=2, N=2, G=1		yes= 10, partially/ not clear= 5, no=0	yes= 10, moderately / indirectly= 5, no=0	yes= 10, moderately / indirectly= 5, no=0	yes= 10, moderately / indirectly= 5, no=0	yes= 10, moderately / indirectly= 5, no=0	yes= 10, moderately / indirectly= 5, no=0	low=0, average=5, high= 10		yes= 10, no=0	yes= 10, only to some extent=5, no=0	low=0, average=5, high= 10		low=0, average=5, high= 10	no=0, action started=5, yes= 10		yes= 10, no=0	yes= 10, no=0	L=5, R=2, N=2, G=1			yes= 10, depending on a particular city=5, no=0		[illegible]		
CLIMATE ISSUE																											
~~Smog~~ Air pollution (see below: particulate matters, carbon monoxide, sulphur dioxide, nitrogen oxides, ozone etc.)																									0	0	All additional information taken from: https://www.blf.org.uk/support-for-you/air-pollution/types; https://www.che-project.eu/news/main-sources-carbon-dioxide-emissions
Particulate matter (PM)	10	L,R,N,G	10	10	10	10	10	10	10	80	10	10	10	30	5	0	5	10	10	10	L,R,N,G	30	0		0	145	Causes: industrial processes, construction work, emissions from diesel and petrol engines, friction from brakes and tyres, and dust from road surfaces. Diesel engines tend to produce much more than equivalent petrol engines. Natural causes: volcanoes, sea spray, pollen and soil; when nitrogen dioxide and sulphur dioxide are changed in the air by chemical reactions.
carbon dioxide	10	L,R,N,G	10	10	10	10	10	10	10	80	10	10	10	30	5	0	5	10	10	10	L,R,N,G	30	0		0	145	Causes: 87 percent of all human-produced carbon dioxide emissions come from the burning of fossil fuels like coal, natural gas and oil. The remainder results from the clearing of forests and other land use changes (9%), as well as some industrial processes such as cement manufacturing (4%)
carbon monoxide	10	L,R,N,G	10	10	10	10	10	10	10	80	10	10	10	30	5	0	5	10	10	10	L,R,N,G	30	0		0	145	Causes: incomplete combustion of carbon-containing fuels, such as gasoline, natural gas, oil, coal, and wood. The largest anthropogenic source of CO in the United States is vehicle emissions.
sulphur dioxide	10	L,R,N,G	10	10	10	10	10	10	10	80	10	10	10	30	0	0	0	10	10	10	L,R,N,G	30	0		0	140	Causes: electric industries that burn fossil fuels, and also from petrol refineries and cement manufacturing. It can be transported over long distances and contributes to the formation of ozone.
nitrogen oxides	10	L,R,N,G	10	10	10	10	10	10	10	80	10	10	10	30	0	0	0	10	10	10	L,R,N,G	30	0		0	140	Causes: vehicles, power stations and heating. Diesel vehicles are major contributors in urban areas. Roadside levels are highest where traffic is busiest.
ozone	10	L,R,N,G	10	10	10	10	10	10	10	80	10	10	10	30	5	0	5	10	10	10	L,R,N,G	30	0		0	145	Causes: chemical reaction between the sun's rays and organic gases and oxides of nitrogen emitted by cars, power plants, chemical plants and other sources. Levels of ozone tend to be highest in the spring and summer and lowest in the winter. Ozone reaches its peak concentration during the afternoon. Levels are often higher in the country than in towns. Ozone is a major component of summer air pollution episodes.
Noise pollution	5	L	10	5	0	10	5	0	10	45	10	5	10	25	0	0	0	10	10	7	L,N	27	5		0	102	
Garbage pollution (f.e. mismanagement of landfills)	10	L,R,N,G	10	10	10	10	10	5	10	75	10	10	10	30	10	5	15	10	10	4	R,N	24	5		5	154	
Overheating																											
Urban heat island	7	L,R	10	5	10	5	10	10	10	67	10	5	5	20	5	5	10	10	10	10	L,R,N,G	30	0		0	127	
Individual buildings overheating	8	L,R,G	10	10	5	5	10	10	10	68	10	5	5	20	5	5	10	10	10	10	L,R,N,G	30	0		0	128	
~~planned obsolescence~~ Lack of planning regulations / inefficient existing regulations / lack of civic engagement	9	L,R,N	10	5	5	5	10	5	10	59	10	0	10	20	10	5	15	10	10	9	L,R,N	29	0		5	128	
Decrease of a bio-diversity	10	L,R,N,G	10	10	10	10	10	10	10	80	10	5	10	25	5	5	10	10	10	5	L	25	5		0	145	
Animal migration	10	L,R,N,G	10	5	10	10	10	10	10	75	10	5	10	25	0	5	5	10	10	7	L,N	27	5		0	137	
Lack of regulations for preservation of flora and fauna habitats in the urban areas	8	L,R,G	10	5	10	10	10	10	10	73	10	10	10	30	0	5	5	10	10	10	L,R,N,G	30	5		0	143	Decrease of natural habitat of animals within urban areas like water reservoirs, forests; Causes: implementation of roads and communication paths preventing migration of animals
~~Water sensitive urban space~~ Lack of regulations on flood control / measures against flood on an individual level	10	L,R,N,G	10	10	5	5	10	5	10	65	10	0	10	20	5	10	15	10	10	7	L,N	27	5		5	137	
Negative effects of economic growth	10	L,R,N,G	5	5	10	10	10	5	10	65	10	5	5	20	10	5	15	10	10	7	L,N	27	5		5	137	
Insecure city space	7	L,R	10	10	0	0	5	0	10	42	10	5	10	25	5	0	5	10	10	5	L	25	5		0	102	
Rising temperatures	10	L,R,N,G	10	10	10	10	10	10	10	80	10	5	10	25	5	0	5	10	10	1	G	21	5		0	136	
Acid rains	8	L,R,G	10	10	10	5	5	5	10	63	10	0	5	15	5	10	15	10	0	5	R,N,G	15	10		10	128	
Water pollution (sewages, accidents, acid rains etc)	9	L,R,N	10	10	10	10	10	5	10	74	10	10	5	25	10	0	10	10	0	9	L,R,N	19	5		0	133	
Refugees from places where climate changes make impossible to live	10	L,R,N,G	10	5	5	5	5	5	10	55	10	5	5	20	10	5	15	10	10	1	G	21	0		0	111	
Overurbanisation	10	L,R,N,G	10	10	10	10	10	10	10	80	10	5	5	20	10	10	20	10	10	10	L,R,N,G	30	0		0	150	
(Choosing) fossil-based energy sources	10	L,R,N,G	10	5	5	5	5	10	10	60	10	5	10	25	5	5	10	10	10	9	L,R,N	29	0		0	124	
Scarcity of natural resources	10	L,R,N,G	10	5	10	10	10	10	10	75	10	10	10	30	5	5	10	10	10	10	L,R,N,G	30	5		0	150	
Extreme weather/ hydrological events																											
Droughts	5	L,R,G	5	10	10	10	10	10	10	73	10	10	10	30	0	5	5	10	10	10	L,R,N,G	30	5		0	143	
Rising see levels	5	L,R,G	5	10	10	10	10	0	10	63	5	10	10	25	5	0	5	10	10	10	L,R,N,G	30	0		0	123	
Extreme precipitation	5	L,R,G	5	10	10	10	10	0	10	63	5	10	10	25	5	0	5	10	10	10	L,R,N,G	30	5		0	128	
Urban flooding	5	L,R,G	10	10	10	10	10	0	10	68	10	10	10	30	0	5	5	10	10	10	L,R,N,G	30	5		0	138	
Water stress	5	L,R,G	5	10	10	10	0	0	10	53	10	10	10	30	0	5	5	10	10	10	L,R,N,G	30	5		0	123	
Harmful off-gasing (.f.e from plastic production, paints, etc.)	10	L,R,N,G	10	10	10	10	10	10	10	80	10	10	10	30	10	10	20	10	10	9	L,R,N	29	0		0	159	

4.1.1 Source: https://www.freepik.com/free-photo/city-with-traffic-jam_954238.htm

4.1.2 Issue matrix. Patrycja Sankowska, 2020

ABOUT THE RESEARCH / ISSUE 1: AIR POLLUTION

Participants: project coordinators (mentor and PhD students); **timeframe:** 03.2020.
Phase 4: cohesion of case studies and regulations to build preparatory conclusions for the applied phase. Layouting works. The results of phase 4 are the content of this manual.
Participants: project coordinators (mentor, PhD students, 1 student): **timeframe:** 04.2020.

Phase 5: on-site workshop where the theoretical part will be evaluated through a real interaction with diverse city stakeholders. **Investigated site:** Gdańsk, Dolne Miasto, Poland.
Participants: all group members incl. citizens and governmental representatives; **timeframe:** initially 23-24.04.2020, but due to the COVID-19 the workshop was postponed and will be probably held in August 2020. The final outcomes will be summarized in a form of an open-source handbook, case studie cards[2], recommendatin cards[2] (see: Research outcomes forther on this page) avaible for workshop participants prior to the event.

[2] Due to the limitation of pages, **only a half of undertaken case studies and a one third of recommen-**
dations are published in this book. The complete
documentation with usefull additional sources and data is avaible on this website:

Selected issues (climate change challenges):
[1] **Air pollution**, [2] **urban heat island** and [3] **decrease of biodiversity**. All of the issues occur in the urban space simultaneously and reinforce one another: air pollution causes higher CO_2 emission which is one of the reason for urban heat island – urban heat island changes the local microclimate which inevitably leads to decrease of biome and local biodiversity having a negative effect on quality of living incl. public health.

Research outcomes
There are two main deliveries of the project:
- manual of measurements that can be undertaken in civic participation processes on collaboratively designing changes in the urban space that would help in overcoming the climate change crisis,
- Citizen-friendly handbook (brochure) in a sketch-drawing style that shows (1) the actions that can be undertaken on the individual level to help fight the climate change and (2) their positive influence on the public space, hence reshaping the public space through collaborative action. Such a form of expression (handbook and playful informative approach) has been proven to be a cost-saving and highly effective tool awareness-enhancing campaigns, design thinking and participatory processes (cf. Al-Kodmany 1999, pp.38-39). The pages from the handbook will be printed on pos-ters and exhibited on-site during the workshop.

ISSUE 1: AIR POLLUTION

Recommendations
The topic of air pollution was analyzed within the scope of sustainable development goals and their general directions. The legal arrangements which were chosen for further analyses and review were: **Gothenburg Protocol of United Nations Economic Commission for Europe's (UNECE) known also as Convention on Long-Range Transboundary Air** and **Paris Agreement** from 2015 with its further amendments. As the topic of air pollution is multidisciplinary wide-ranging, dependent among others from geographical locations and individual state of the situation, it is challenging to outline several universal guidelines resulting from international agreements. Generally, all the parties agree on several points which are tightly joint with urban planning context.

ISSUE 1: AIR POLLUTION

The Convention on **Long-Range Transboundary Air Pollution** is an international treaty that deals with air pollution on a global and regional basis. The Convention is represented by fifty-one parties and has eight protocols addressing specific pollutants. Within the scope of this legal constraint it aimed to protect the human environment against air pollution and to gradually reduce and prevent air pollution, including long-range transboundary air pollution. The treaty is implemented by the European Monitoring and Evaluation Program (EMEP), directed by the United Nations Economic Commission for Europe (UNECE). The Convention provides access to emission, measurement and modelling data and information on the effects of air pollution on ecosystems, health, crops and materials. One of the most prominent aims of the convention is assessing observed trends in air pollution at the various scales and in this way finding linkages between global and regional air pollution and assessing the health and ecosystem impacts at the local and urban levels of air pollution measures.

The further document, **Paris Agreement** (PA) is an agreement within the United Nations Framework Convention on Climate Change (UNFCCC) and is signed by almost 97 percent of the countries all over the world. It is dealing with greenhouse gas emissions mitigation, adaptation and financing of it. The PA is bridging contemporary climate-neutrality policies - key elements addressed to temperatures, financing, specialization, emissions goals, burden sharing, review mechanism, climate-related losses. It also aims to respond to the global climate change threat by keeping a global temperature rise this century well below 2C° above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5C°. Under the PA, countries have promised specific contributions to the ambitious environmental goals - formally known as **Nationally Determined Contributions (NDC)**. These pledges define key challenges and measures to be taken in order to mitigate causes and adapt to its effects. Member States committed to share knowledge, technologies, and resources to confront these global challenges. 113 of 164 NDC show relevant urban key words in the context of national priorities and ambitions for reducing emissions and adapting to climate change. The exact pledges and urban aims depend from geographical context-those differences in approach are shown in many EU-projects[3].

Most of the NDC refer to the: **urban adaptation (1)** or **mitigation measures (2)** and **national priorities and ambitions for reducing emissions**:
(1) As adaptation priorities, mostly mentioned as NGCs there were: **food security**, **water management**, **vulnerability and disaster prevention**, **biodiversity and ecosystem conservation**, **health and healthcare**, **proper land use management**.
(2) As mitigation priorities understood were **actions within energy production, agriculture, forestry, reduction of non-CO_2 greenhouse gasses, transport and waste management.**

Previously mentioned legal agreements underline the crucial role of cities, regions and local authorities in shaping less air polluted environment. Both documents also address their actions in local, regional, national and global level as having equally prominent importance in collaborative arrangements. Therefore, the recommended actions are not always transferable and universal and depend specifically form the local context.

[3] A very interesting European project that investigates various adaptation and mitigation strategies against air pollution that are mplementable on **citizens' level** is **ClairCity (2013-2020)** with 6 municipalities:

- Amsterdam, Nederlands
- Aveiro, Portugal
- Bristol, UK
- Liguria, Italy
- Ljuliana, Slovenia
- Sosonowiec, Poland

http://www.claircity.eu

ISSUE 1: AIR POLLUTION

Case Study 1.1: Jakarta, Indonesia
Civic involvement: **yes,** govermnetal involvement: **yes**

Description of the problem:
One of Jakarta's biggest climate-change-related challenges is air pollution caused mainly by **heavily overloaded transportation**. Every morning and afternoon, at the same time milions of Jakarta's citizens choose to use their prviate vehicle - lack of deman-oriented public transport accessibility (both in quality and qunatity) make many of them solely dependent on private vehicle use (around 75% of total modal share with growing tendention). This situation leads to congestions that scored as one of the highest in the world - according to TomTom Traffic Index (2020) in 2018 Jakarta has ranked 7th and in 2019 10th most congested city globally. Together with other causes of air pollution like **coal-fired power plants**, **industrial activities** and **households**, it leads to health and life threading consequences. "*Throughout 2018, Jakarta's PM2.5 reached 45.3 micrograms per cubic meter (..) more than four times the maximum standard set by the World Health Organization (WHO) and three times the maximum level allowed by the Indonesian national standard*" (Mustasya, Andriyanu 26.06.2019). In addition, based on data from State Ministery for Environmental Impact Agency (BAPEDAL) the fuel energy consumption is dominated by transportation use, making private transport the main contributor in unsustaibale natural resource use.

The most pressing problem caused by such high level of air pollution is the **poor health condition of the citizens**. The low air quality creates **risk of respiratory illnesses, heart attacks**, **cancers** and **strokes**, naturally increasing sick leave, hospital admissions and health subsidies. It affects most ofall the older people, individuals with long-term conditions, children as well as pregnant women. The city and the neighboring provinces **lack in air quality monitoring systems**, **well researched and up-to-date regulations and standards** as well as a **consequent political** agenda that would **prioritize people's health and well-being** (cf. Mustasya, Andriyanu 26.06.2019).

List of undertaken measures (*global*, ***individual*.*** * For more see: footnote 2)**:**
- ***Use of "pedestrian ways and bicycle path*** *circulation (f.e. widening sidewalks by using road space through decreasing the width up to 3–3.25m but maintaing the number of lanes; using closed sewerage system as sidewalks; average width of existing sidewalks (+2m) are going to be widened to 9-14m mixed land use within walking a distance),*
- *investment and* ***broader use of MRT[4], LRT[4] and BRT[4]*** *corridors,*
- *trying out new Traffic Restriction Method (f.e. Odd-Even Rationing Policy)*
- *due to limited land, parking buildings are to be built in a more creative design*
- *private sectors must contribute in improving transport sector to support speeding up of infrastructure provision which sometimes meet obstacles in land acquisition, government budget, or time consuming bureaucracy. (f.e. in the form of: Corporate Social Responsibility, Obligation from permits issued to the privat sectors, PPP[5],*
- *Smart Tech enables public to monitor, evaluate and involve more in Government's activities (f.e. Android app QLUE, smartcity.jakarta.go.id or e-planning and e-budgeting (online platform that records the process for developing Government Budget*)" (Ginting 2015 pp. 6-16)

[4] MRT - Mass Rapid Transit (underground, metro)
LRT - Light Rail Transit (tram, city/metropolitan train)
BRT - Bus Rapid Transport (bus-based public tran.)

[5] Public Private Partnership

ISSUE 1: AIR POLLUTION / ISSUE 2: URBAN HEAT ISLAND

ISSUE 2: URBAN HEAT ISLAND

Recommendations

As the occurrence of an urban heat island (UHI) is rather an effect and not a direct cause of climate change, the recommendations and regulations regarding this matter are normally a set of measures used in diminishing the direct actuation. On the other hand, it is interesting to observe how only a few, well chosen, actions can help overcoming multiply issues. Although there are several reasons for UHI, it is usually associated with dynamic urbanization with a large share of non-permeable surfaces and blocking of winds. Both surface and atmospheric urban heat islands are an underlying problem in terms of climate action in urban planning. Indirectly, they are addressed in the documents focusing on general prevention of global warming a climate change, such as United Nations Framework Convention on Climate Change with its further protocols and Sustainable Development Agenda 2030 . With this account taken part of the country began to develop national guidelines on the prevention of the UHI effect. In general, one of the main functions on a range and regional scale, individually developed guidelines for planners and other stakeholders are used. Available in the offer can be successfully adapted by other countries or become available to the best practices.

For those reasons, some countries have started to develop national guidelines for the prevention of UHI effects. They play a crucial role on a local and regional scale, as they contain individually developed guidelines for planners and other stakeholders. Some of the national guidelines can be successfully adapted by other countries or can deal as examples of good practice. On the right side the reader can find additional complimentary information[6] regarding the UHI character and its negative effects on health, economy and environment.

A concise set of planning suggestions on mitigtion of UHI was released in 2015 by the City of Cambridge. This particular document is therefore so important, as it points put exact data collection, analysis and monitoring methods (1) and implements different policies, best practices, measures (2) and recommendations from around the world:

(1) data infrastructure

- "*(..) land surface temperature map and heat index map for the entire city for the climate vulnerability assessment*",
- analysis of existing and potential tree canopy cover based on LiDAR (Light imaging, Detection, And Ranging) data,
- "*(..) analysis of all vegetative cover by neighborhood using Cambridge GIS data*",
- "*(..) analysis of city and park trees"* for estimating public shade trees,
- GIS data of existing impervious area (roads, sidewalks, driveways, and buildings),
- data-to-indicator devived from national standards (LEED ND and STAR Communities).

(2) measures (selection)

*"**Expand tree/vegetative cover programs and policies**:*
While new trees can be planted, they take years to fully develop into a shade providing Camb-

[6] 1. United Nations University, online article: "Heat is an Urban Killer", Tan ad Siri 12.10.2016 https://unu.edu/publications/articles/heat-is-an-urban-killer.html

2. United States Environmental Protection Agency, online article: What You Can Do to Reduce Heat Islands? https://www.epa.gov/heat-islands/what-you-can-do-reduce-heat-islands

bridge's mature trees have developed extensive canopies that take decades to replace. Any removal of vegetated/pervious surfaces should be discouraged, as it is difficult and costly to revert to those surfaces at a later time,
- *assess existing threats to tree cover, such as disease, pests, methane leaks, and climate-change induced stress, and develop strategies for addressing any them,*
- *review existing utility tree removal/trimming procedures,*
- *identify the points at which the City can influence removal of private trees and vegetative surfaces and develop intervention plans/strategies,*
- *waiving existing fees for tree planting,*
- *intensifying training and outreach to residents and property owners about new tree care and maintenance,*
- *increasing financial and personnel resources to carry out (..) robust tree planting program,*
- *identify possible locations for trees, what species of trees would be appropriate, how long it will take for the trees to mature and how much additional canopy cover they could provide once mature,*
- *account for new planting mortality, and loss of existing canopy due to age, disease, natural disaster,*
- *develop design specifications for landscaping that increase tree canopy, improve tree survival/health, and decrease use of hardscaping.*

***Develop additional UHI reduction programs and policies**.*
- *Adopt municipal policies that will increase the use of strategies in municipal projects,*
- *develop new design specifications for use of cool/reflective surfaces in buildings, roofs, roadways, walkways, and parking lots,*
- *develop plans to retrofit the public right of way and municipal properties,*
- *(..) citywide cool roof ordinance with standards for reflective roofs on new buildings,*
- *develop other UHI reduction guidelines for buildings, roofs, roadways, walkways, and parking lots in new development that can become policy/be included in zoning. Consider appropriate incentives in new development.*

***Evaluate program progress**:*
The amount of urban tree canopy and vegetative cover should be tracked over time, using a consistent methodology. The City should also track the number of buildings with cool/ reflective surfaces and monitor the extent of UHI effect over time, taking climate change into account.

(..) ***Support and conduct pilot projects and research on UHI mitigation.*** *The City should:*
- *assess and compare the effect of different mitigation strategies,(..)*
- work with diverse research intitutes [here with: MIT and Harvard],
- *(..) assess the feasibility and effectiveness of green walls in reducing UHI effect and impacts on building energy performance (..),*
- *develop an understanding of the storm water management and other co-benefits*

***Coordination:** the City should coordinate the integration of UHI mitigation efforts with other related initiatives*" (City of Cambridge 2015, pp. 3-5).

4.1.3 Case 2: Urban heat Island
Source: www.freepik.com/free-photo/elderly-men-find-fish-dry-ground-global-warming_5469301.htm
4.1.4 Decrease of biodiversity
Source: https://www.freepik.com/free-photo/winding-road-through-city-park_1270290.htm

ISSUE 2: URBAN HEAT ISLAND

Case study 2.1: Heat Action Plan and India's post-2020 climate goals, Delhi, India
Civic involvement: **yes,** govermnetal involvement: **yes**

Description of the problem:
Delhi both urban and rural areas suffer from extreme heat. Based on UrbClim measurements and simulations *"the intensity of heat wave (..) for urban land uses increases from 40 °C in reference time frame to 45 °C in short-term projection to 49 °C in far future. These values for non-urban land use were 33 °C during the baseline time period and are expected to increase to 42 °C and 46 °C in near- and far-future time frames. The results clearly indicate the contribution of UHI effects in intensifying the impacts of extreme heat and heat stress in the city* "(Sharma el at. 2018).

Main **causes** of such situation are:
- unsustainable land use,
- land cover changed due to urbanisation - soil is covered by concrete/asphalt surfaces,
- emission of waste heat from transportation, commercial, residential, industrial,
- rise of population from 9.42 million in 1991 to 16.7 million in 2011 - growth in number of vehicles, residential areas, commercial complexes and infrastructure facilities,
- air pollution – burning of coal and wood for cooking in poor households (especially in urban slums); using fossil-fuel sources for electricity generation.

L**ist of measures implementable within a neighborhood**:
- light color paving (cool pavement programmes like in Los Angeles),
- porous green roads and cool roofs,
- tree covers,
- people in green areas could be encouraged to grow climbing plants and curtains of vegetation outside their windows,
- greenbelts around cities,
- highly energy-efficient and disromoting conventional air conditioning in households,
- passive cooling - architectural design that use energy from the natural environment to dissipate heat,
- research on alternative building materials and thei accessibility,
- "*public awareness and community outreach to communicate the risks of heatwaves,*
- *early warning system and inter-agency coordination to alert residents of predicted extreme temperatures,*
- *capacity building among health care professionals to recognise and respond to heat-related illnesses* (Heat Action Plan 2019, pp.1-2). The authors encourage further lecture[7].

The above written measures are a part of India's bigger strategy called **post-2020 climate goals** that were made in response to the decisions of the Conference to the Parties, India submitted its Nationally Determined Contribution (NDC) to the UNFCCC on 2nd October, 2015, outlining the climate actions intended to be taken under the Paris agreement. The eight goals put forth by India in its NDC are to:
- "(..) *put forward and further propagate a healthy and sustainable way of living based on traditions and values of conservation and moderation.*

[7] Heat Action Plan "Expanding Heat Resilience Across India", 05.2019. https://www.nrdc.org/sites/default/files/india-heat-resilient-cities-ib.pdf

ISSUE 3: DECREASE OF BIODIVERSITY

– *adopt a climate friendly and a cleaner path than the one followed hitherto by others at corresponding level of economic development.*
– *reduce the emissions intensity of its GDP by 33 to 35 percent by 2030 from 2005*
– *achieve about 40 percent cumulative electric power installed capacity from non-fo-ssil fuel based energy resources by 2030 with the help i.e. from Green Climate Fund, create an additional carbon sink of 2.5 to 3 billion tonnes of CO2 equivalent through additional forest and tree cover by 2030.*
– *better adapt to climate change by enhancing investments in development programmes in sectors vulnerable to climate change, particularly agriculture, water resources, Himalayan region, coastal regions, health and disaster management.*
– *mobilize domestic and new & additional funds from developed countries to implement the above mitigation and adaptation actions in view of the resource required and the resource gap.*
– *build capacities, create domestic framework and international architecture for quick diffusion of cutting edge climate technology in India and for joint collaborative R&D for such future (..)*" (INDC 2015 p.29).

ISSUE 3: DECREASE OF BIODIVERSITY

Recommendations:
For this topic, the authors have chosen three main recommendation providers: United Nations' **Convention on Biological Diversity** (CBD), I**ntergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services** (IPBES) and the **Biodiversity Indicators Partnership** (BIP). Additional reading for education purposes is encouraged[8].

The CBD is seen as one of the most important global initiatives that promotes an integrated sustainable development through broader inclusion of biological diversity aspects into the planning, decision-making and execution practices on local, regional and national levels (cf. CBD International 2020). "*The IPBES is an independent intergovernmental body established by States to strengthen the science-policy interface for biodiversity and ecosystem services for the conservation and sustainable use of biodiversity, long-term human well-being and sustainable development"* (IPBES 2020). Lastly, the BIP "*is a global initiative to promote the development and delivery of biodiversity indicators*" (BIP Indicators 2020). Its mission focuses short-term on slowing and long term on stopping g the pace of biodiversity loss through undertaking strategic and operative measures from macro to micro level (global-national-local).

Although all three initiatives represent slightly different backgrounds (CBD operates on a global level, IPBES is science-driven and BIP creates evaluation instruments for measuring the success rates of sustainability undertakings), they share several common measures:
– *"urban parks and vegetation reduce the urban heat island effect. There is additional potential for lowering temperatures through construction of green roofs and walls,*
– *increase in tree canopy - 10% increase may result in a 3–4°C decrease in ambient temperature and save large amounts of energy used in air conditioning,*
– *interception of rainfall by vegetation to promote infiltration and interception, thereby*

[8] United Nations University, UNU-IAS Policy Report, UNU-IAS/2014/No.12: "Integrating biodiversity with local and city planning: the experience of the studios in the development of local biodiversity strategies and action plans – LBSAPs". Puppim de Oliveira et al.

ISSUE 3: DECREASE OF BIODIVERSITY

reducing pressures on drainage system and lowering the risk of surface water flooding,
- *using integrated urban planning concepts,*
- *urban mangroves and other wetlands as a biofiltration systems for sewage,*
- *enforcement of appropriate land-use planning,*
- *conservation guidelines for urban ecosystems,*
- *monitoring of biodiversity (..) to conserve and manage the urban biodiversity,*
- *planting native plants in parks, roadsides, gardens, vertical and rooftop gardens, etc.*
- *creating small wetlands, such as ponds or marshes,*
- *creating urban gardens (regardless the size) in order to provide the habitat for native pollinators such as bees, which have declined alarmingly in recent years,*
- *creation of inner-city biosphere reserves,*
- *creation of green belts around cities, and the "green" reengineering of major highways and infrastructure projects"* (SCBD 2012, pp. 13, 25, 27).

Case study 3.2: Renewal of medium-to-high level greenery, Developing adaptation plans for climate change in cities over 100,000 res. (44 polish cities), Legnica, Poland
Civic involvement: **yes,** govermnetal involvement: **yes**

Description of the problem:
- loss of natural habitat of local plants and animals,
- loss of local biomes due to habitat destruction,
- increase of wastelands within the urban limits and lack of respestive, proper policies that would prevent the creation of non-vegetation areas due to waste toxicity,
- lack of gardens in neighbourhoods (a longt-term soil misuse leads non-vegetation).

List of undertaken measures:
- in 2017, nearly 400 trees and over 6,000 trees were planted under the 'Medium and high greenery renewal program,
- in 2017, as a compensation, the municipality planted 91 trees with a trunk circumference of 20-25 cm,
- in 2017 and 2018, over 900 trees and almost 33 thousand trees were planted in Legnica as part of the "Medium and High Greenery Renewal Program*".

The „Odnowa zieleni średniej i wysokiej*" program has been implemented for over a dozen years with the active participation of, among others, property managers, housing associations and cooperatives, road authorities, educational establishments, health care facilities, allotments, services and other local organizations. New green areas are being established on wasteland. Complete yourself with trees and shrubs that are available for reasons or due to loss of viability. The city has developed the principles used in the program: all participation units undertaking the program including applications for the allocation of plant material. In the application, city provide selected plant species, their positions, expected work schedule, deadline for site preparation and planting. Exemplary interventions are: insulation greenery, renovating the playground in the field of accompanying greenery, greenery restoration of the block interior, creating parks and pocket gardens located in residential zones, green alleys, etc. (cf. 44MPA 2020).

CONLUSIONS / TAKE-AWAY FOR THE PHASE 5 (WORKSHOP)

CONCLUSIONS

Throughout the first four phases of the research the team noticed that despite the varying socio-political and geographical characters of cities around the world, most of them already are faced with consequence of unsustainable growth and subsequential global warming. In addition, the causes of the current and future struggles share also a similar nature, as many of them, like types of used energy sources, manufacturing practices, or transportation modes, although varying in technological progress, are unformal around the world. Therefore, the cities and their stakeholders that are currently relatively unaffected by a climate change, are urgently adviced to use the given time advantage and work on design diverse localy-tailored measures to prevent the upcoming challenges.

Many of measures, regardless the issue, have much in common. Therefore, in group's view, **to design a climate-friendly, high quality public space the city stakeholder would possibly not need a wide range of different actions, but rather a few carefully selected.** An overwhelming number of those measures are connected with land restoration and conservation of local biodiversity that can be done in a private garden or in the neighbourhoods, in the space between the buildings. With community funds a façade on a multi-family house can be covered with affordable green walls that contribute positively in the fight against air pollutions (see: further case studies on the website mentioned in the footnote 2 - scope of the project, phase 5). Through tree funds, the municipalities can encourage private landowners to plant new trees there where the city would have no right to do that itself. And above all the most effective way is to start on an individual lvel by making more informed decisions - rethinking the type of transportation taken on the way to work or school, switching to renewable energy sources, or working more from home if possible and therefore limit the taken routes. Openess is here an important asset!

On the other hand, **the municipality needs to work closely with citizens to understand their needs and understand how to meet the demand on options they are lacking in**. As the idea of participative action is relatively new but the time pressure of climate change very high, **it is crucial to work as much as possible on finding most effective collaboration formats** to sustainably solve the pressing urban challenges. The choices and their consequent implementation bring numerous benefits for the local community and its future. And the power of local action has a significant global impact.

TAKE-AWAY FOR THE PHASE 5 (WORKSHOP)

In preparation for the workshop the group is going to analyse which collaboration methods between citizens and municipalities together with digital communication platforms/ methods have been proven to be the most effective in working on urban-related matters.
The results will be a base for creating a workshop format that will be concentrated on rethinking Gdańsk's Nowy Port public spaces in the context of providing its neighbourhood with esthetical, climate-friendly and community-bounding investive and non-investive measures. The workshop will be organized in a design-thinking with a few elements from agile working methods like time boxing or sprint planning.

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EDUCATIONAL ROLE OF REGENERATIVE PUBLIC SPACES IN RAISING ENVIRONMENTAL AWARENESS

Public Space is merely an empty space the public has access too. It is the activities this space offers that make the difference. Activities commercial, arts, cultures, sports have been the norm. Here, we take a step forward by enabling this place for people to work, to collaborate on arts, also on technology and the environment. So that the public can come, learn, put their hands together to make into works of art, to experiment on technologies, joining their minds to improve, to invent, to conceive what can be done, can be done easier, can be made useful, more useful.

Our vision is for everyone in the community to share public spaces as inspiring and educating platforms for reaching sustainable development goals by art and innovation in everyday life. With this motivation, our chapter focuses on encouraging re-thinking of existing public spaces as regenerative public spaces.

For this purpose, we analyzed the role of art for education in public spaces and how we can use it in re-thinking of our public places in the framework of public art. Secondly, we focus on plastic waste, one of the most widely known environmental problems as a case study. In this context, we tried to develop an approach to show innovative ways to solve plastic problems and increase the environmental awareness in public spaces.

Mentor: Solvere Lim

SM(MIT) MBA(Law) 2000 Cognized world peace need new growth engines. 2006 Handed to Mr Lee Kuan Yew new engines are Cities Planning, Building Design, Water, Energy with enabling breakthrough inventions. Book 6-The Gold beyond Green & Eco.

Katarzyna Klancko

Master student of Landscape Architecture at Wageningen University & Research. Interested in regenerative and participatory design. Inspired by Jaime Lerner and all about urban acupuncture. Loves good food and backpacking.

Mentor: Karolina Wojnowska-Paterek

Polish architect and artist, Phd in Fine Arts, member of National Chamber of Polish Architects. Her works span several disciplines: architecture, experimental artistic installations, painting. Her public artistic installations addressed environmental issues.

Aleksandra Rudnicka

A bachelor student of Architecture in Gdańsk University of Technology. Aspiring to use the power of design to make a good cause for the people and the Planet. In a free time a massive pop culture and musical theatre lover.

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1. USE PUBLIC (ECO) ART TO INCREASE ENVIRONMENTAL AWARENESS

5.1.1."Skyscraper" in Bruge, Belgium

5.1.2. Fish mural in Lisbon by Bordalo II

Public art should not only be used for increasing the aesthetic value of public spaces or place/city branding, but may and should provide an important message and have educational value. Art presents problems in a symbolic and emotional way thus remains in people's memory and while does not teach directly by giving instructions, aims to make people interested in the subject and start a discussion. Public spaces, visited by many people, may offer possibilities to contact and experience art even unintended, thus its educational potential is enormous. Following Hochritt et al. "Since the streets give access to the collective, contemporary culture, but in ways that seem ordinary or everyday, then people's lives are shaped by what is offered by the streets" (Hochritt et al., 2018, pp. 291).

Eco-public art (or public eco-art) is a new concept - a type of public art that aims to address environmental issues. Like the public art can be represented in different forms and types of arts such as sculptures, paintings or performances, can be either permanent or temporary and involves professional artists, creative crafts, people's or citizens creating artworks (Walter & Earl, 2017). That is why it is crucial in this case to work with at least one of these groups while creating or changing a public space.

One of examples illustrating use of public eco art is the Skyscraper placed in Bruge - a large blue and white sculpture in shape of a whale that is made out of plastic waste and that aims to spread awareness about plastic pollution in the oceans. Another examples can be the works of a portuguese artist Bordalo II, whose murals made with use of nearby collected waste are present in many cities and bring attention to the difficult situation of these animals worldwide.

Eco-public art can also take the form of a part of the design of public space and have utility functions such as benches and tables made out of recycled milk bottles in Chicago created by Dan Peterman or the Silt house in Singapore designed by Wolfgang Weileder and made of recycled plastic waste.

5.1.3. Bear mural in Turin by Bordalo II

5.1.4."Running table" by Dan Petermann in Chicago

5.1.5. Silt house in Singapore by Wolfgang Weileder

2. CONSIDER OPEN ENDED/ INCREMENTAL DESIGN

The "closed"/end-product oriented design is connected with the creationist paradigm, which goal is to create a finished product and where everything is planned from A to Z. It is related with top-down relation, where the designer has the greatest influence on the final product (Marshall, 2009). An example of that are most art pieces or architectural structures and master plans.

Since in end-product oriented design, there is very little or no room for changes and adjustments and which works only if the external conditions are easy to predict or controlled the public spaces of tomorrow most likely can not be designed with this approach, but with a more flexible one. External factors such as progress in the development of technologies as well as may uncertainties how the world will look like even in the future makes it difficult to design for the long term. Fixed structures designed even with the use of the newest technologies can get quickly outdated. That is why there should be room for flexibility and adjustments.

Therefore designers should consider using another, more flexible approach - open ended/incremental design. This approach takes changing conditions and adaptations to them into account. According to a famous geographer Doreen Massey "are not static, but they are processes" (Massey, 1994, pp. 8), thus they are undergoing constant changes and it is difficult to claim that a place will not change after the implementation of a design. The open-ended approach comes from evolutionary paradigm of urban planning, which states that the cities are not stable features and they can work better only if the design can be changed/adjusted in time (Marshall, 2009).

It is a more experimental approach and often it gives more a direction or a strategy that a plan and see what happens in the future. Therefore even though the result in general is partly predicted the precise outcomes are unknown in the beginning. In incremental design goals are not set in the beggining, but chosen alongside with means what enables flexibility, easy adjustments as well as gives room for experiments. For instance,innovations can be tested in real life, not only in a lab and then based on the results decision of permanent implementation can be made. Good examples of open ended design are: modular, temporary, incentive or "elastic".

5.2.1. HEX-SYS - modular project, where a set of hexagons assembled together create a building and a pa-

5.2.2. LX Factory in Lisbon - an incentive and temporary project in an old textile factory made in time of crisis was so successful that it not onlybecame permanent, but initiate regeneration of the entire neighbourhood

5.2.3. A pop-up park in Barcelona - an example of temporary design

5.2.4. Visualization of inflatable office designed by

3. EXPERIMENT WITH INNOVATIONS

5.3.1. De Ceuvel in Amsterdam - a living lab, where circular solutions and innovations are being tested

5.3.2. Floating recycled park in Rotterdam made out of hexagon elements from nearby collected and recycled plastic waste

5.3.3. Visualization of Danish Recycling Centre

For design of public spaces of tomorrow innovations and experiments are important. They are the methods of testing new solutions in real life and to investigate which ones work best, especially if it comes to regenerative and circular approaches. In this way public spaces can become "living labs", which not only try to solve environmental issues in a physical way - such as reuse or recycle of waste, but also provide an educational function, which is equally important.

A good example of innovative design can be De Ceuvel located in a polluted site of a former harbour in Amsterdam. Project created by Delva Landscape Architects was designed to be an urban innovation playground for circular solutions. The main idea was to examine an alternative and regenerative method to clean polluted areas - phytoremediation, instead of using traditional methods, such as excavation of contaminated soils. Additionally various circular solutions have been implemented and tested there such as dry compost toilets, aquaponic greenhouse from which herbs are used in the cafe, metabolic lab or biogas boat. Another example from the Netherlands is floating park in Rotterdam, where plastic waste, collected from a local river, is being used to build hexagonal blocks linked together that create a floating structure with greenery and leisure spots.

A project of danish architectural studio Bjarke Ingles Group shows completely reverse well-known view of recycling place. Besides locating the multiple containers that people can look inside while standing on the hill, there is going to be also fitness facilities, running tracks and picnic areas - creating a lively and utilitarian new public space. Designers tried to "orchestrate all aspects of daily life, from consumption to recycling, from infrastructure to education, from the practical to the playful into a single integrated urban landscape of work and play" (Rosenfield, 2015).

Sometimes the only thing that a good public space needs is not an innovative technology, but an innovative idea. In 2016 in India opened a school where children pay an attendance fee with not money, but a bag full of plastic waste, which they further reuse by creating different objects. It did not only enable children from poor families to afford education, but helped to clean the community and raise awareness.

5.3.4. Children working on reuse of plastic waste in a school in India - each child brings in at least 25 items of plastic waste per week, as their contribution to their community and the environment

4. COLLABORATE WITH PROFESSIONALS FROM DIFFERENT FIELDS

In creating public spaces of the future it might be beneficial to work together with experts from fields outside of architecture and planning. Engineers, scientists, artists and others can pose knowledge and/or skills that are priceless and can contribute to the design process in many ways. Working in a multidisciplinary team may be very inspirational, widen the horizons, help to think outside of the box and see issues and potential solutions from a very different perspective. In many cases collaboration can be fruitful and beneficial for each side and bring much better results than working only among people from one proffession.

5.4.1.

Solvere Lim - engineer and inventor

IDEA OF ZERO PLASTIC WASTE

Zero Plastics Waste, stopping plastics waste from entering the environment is the project here. It identifies plastic can be shaped and made into products, easier, using less energy, water than tires, glass, metals, wood, paper. Plastics, by itself, can function as a binder, while wood and paper need adhesives, adhesives that emit harmful gases. A new process was recently conceived and a patent was filed as FRU-P (Full Reuse of Plastics),. The machines and processes are painstakingly simplified so that not only plastic waste can be processed by any community, it can be processed by even villagers in less developed regions, it can be processed into something useful, sellable, not limited to boards, rods, boxes, shelves, outdoor furniture, etc.

This process is designed so that every community can set up one in their public space, for everyone to see, understand, learn, be interested, putting their hands on, make into something, and befriend with others, work together, improve the skills, conceive new ideas - resulting in an ever progressing community, not only we stop plastic waste from entering the environment, we unleash the talents embedded in everyone, teaming them up, developing them into a greater, ever improvement community (Lim Swee K, 2020).

Solvere's recommendations:

1. Work with local communities, developers, governments, charity organizations, social enterprises, industries(drinks, logistics, constructions, public works) to effect this project.
2. Set up the first station in Gdansk, other cities in Europe, Africa, Turkey, Singapore to share the ideas.
3. Reaching out to universities, high schools, vocational institutions to share, and collaborate on the development of processes, machines, products and evolve into standard curriculums.
4. Reaching out to international leaders, not limited to UNESCO, Industries such as Furniture (e.g. IKEA), Drinks, Beverage, Dairy industries (e.g. Tetrapak), Logistics, Civil Engineering.

5.4.2.

Karolina Wojnowska-Paterek - architect and artist

NEW PLANET ARTWORK

An eco artwork was created in order to increase the awareness of plastic pollution in the oceans and its influence on animals living there.

"Affected by temperature increase, plastics are taking organic shapes, similar to the forms of living organisms. Remains of plastic containers are similar to the remains of animals.This is an artistic reflection about what we are going to leave for next generations. Except for plastic wastes, moving sculpture also contains fragments of animal's skeletons which are hard to distinguish from synthetic polymers debris…."

5. USE TACTICAL INTERVENTIONS

5.5.1. A Build a Better Block installation in Kansas City

5.5.2. Guerilla gardening in public space using the old jugs as planting pots

5.5.3. A road in Porto Alegre, Brazil, before and after a tactical intervention

Following Massey its "social interactions that construct a place" (Massey, 1994, pp. 8), which may be seen as it is the people who really "design" the space. It is the users that define a place, might change it and use it in many ways even unintended or planned. Very often the popular public places in the city are chosen by people for certain reasons and naturally become a famous meeting and leisure place. Many of those public spaces were not planned from A to Z by designers. The mood and character of such a place appear with time and is very often created by people and artists.

Tactical urbanism is an application of temporary, low cost, small-scale and often community initiated interventions in public spaces, which often changes character and liveability of a space completely (Lydon and Garcia, 2015). By small interventions, such as guerrilla gardening, park(ing) day, open streets, play streets, pop-up parks and parklets, tactical urbanism tries to explore the impact it has on the space, the site itself and on the behaviour of people and therefore, it is an ongoing dynamic process. Tactical interventions are very often based on reuse of existing materials, including waste, therforecontributes to circular economy and promotes environmental awareness.

The challenge for planners and designers is to answer the question to what extent should we design public space. It is very important to take into consideration the interaction between the space and its users. The main role of the planner here might be then to give the direction of development of public space and let it develop involving the local communities.

5.5.4. A pop-up park by karres+brands and Ghilardi+Hellsten arkitekter in Fosnavåg, Norway

6. SELECT AN APPROACH BASED ON THE SITE CONTEXT

5.6.1. Social campaign about waste segregation in a public space in Warsaw, Poland

The differences of geographical, cultural and economical contexts make it impossible to come up with one list of solutions that would work out everywhere. When developed countries can afford big, expensive projects and low-cost, small scale interventions are one of alternative, in most of developing countries, due to lack of funds, the latter ones are often the only option.

In case of reducing waste problem with use of public space different approaches will work differently in differnt countries. In most of developed countries trash segregation is commonly known and is a daily habit. Nevertheless, with the diveristy of waste types and where segregation is relatively new, not all of them are thrown away into the right containers. In order to prevent that, the cities very often use social campaigns, and advertisements in public space to educate their residents. One of such initiatives has been made in Warsaw, when the new restrictions for segregating the waste had been legislated.

5.6.2. A man using a card for identification at a"Sustainability station" in order to get a symbolic reward in Curitiba, Brasil

In contrary in less developed countries, where segregation of waste is not well known and where littering is socialy and culturaly accepted, education and first of all provision of proper equipment is crucial. It is unlikely, that a placement of an eco artwork will change the behavior of residents for instance of an informal settlement, if there are no recyling bins provided and where people struggle with everyday life.

The situation changes if waste become a source of income. It is what happend in the brazilian city of Curitiba, which became world's leading city in recyling. Curitiba's succes behind the idea of turning waste into a resource lays in its simplicity and use making use of win-win mentality. Since the city's waste department did not have funds for a recycling plant, it came up with another concept, which was creating a compatibile currency to reward people for separating trash. Waste is collected at the waste or "sustainability" stations and exchanged for basic goods such as transportation tickets, school-books or food.

5.6.3. "Sustainability station" in Curitiba, Brasil

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