ASPIS

international conference 2012

DESIGN///PARTICIPATION///SUSTAINABILITY///ICT
SUSTAINABLE PUBLIC OPEN SPACES AND PARTICIPATION THROUGH INTERACTION AND ICT

Luca School of Arts - Sint-Lucas School of Architecture Brussels/Ghent

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SUSTAINABLE PUBLIC OPEN SPACES AND PARTICIPATION THROUGH INTERACTION AND ICT

Proceedings of the colloquium of 'Sustainable Public Open Spaces and Participation through Interaction and ICT' at Sint-Lucas Ghent from 12th – 14th November 2012

LUCA

CONTENTS

CALL FOR PAPERS

The ASPIS partnership calls for contributions on the development/field of **design, participation, ICT, and sustainability of public open spaces.**

In the debate on sustainability, a lot of time and effort goes (righteously) to buildings. With this conference ASPIS wants to investigate initiatives, designs, research, proposals that challenge the sustainability of the public open space and the role participation plays is this.

It is anticipated that papers will fall into the topics below but other contributions are also welcomed:

ICT and DESIGNING for PARTICIPATION and public open spaces
We are looking for contributions that explore the relationship of participation and sustainability of public open spaces through ICT. Questions like: (how) Can we design participation? (how) Can designers use participative processes as a design tool? How do we ensure a qualitative feedback from participative processes into a design process? (how) Can we incorporate social media and ICT in the participative process? How do we ensure an integrated role of participation in a design (process)? What role does or can education play in this? How can ICT play a role in designing for participation?

ICT and DESIGNING for SUSTAINABILITY and public open spaces
We are looking for contributions that explore the relationship of design and sustainability of public open spaces. How does sustainability of public space differ from sustainability of buildings? Does it differ? What are elements crucial in auditing sustainability (post-design and execution phase) of public open spaces? What constitutes an optimal relation between a public open space and the city? What role is there for policies and planning practices? How can ICT play a role in designing a sustainable public open space?

We encourage contributions that are either more theoretical, either case studies or best practice examples of research by design. We hope to attract researchers, designers, planners, municipality officials, members of NGO's, both as presenters and audience.

The 'Sustainable Public Open Spaces and Participation through Interaction and ICT' conference is organized by Luca School of Arts - Sint-Lucas school of architecture Brussels/Ghent.

INTRODUCTION

Auditing the Sustainability of Public Open Spaces – the ASPIS project

Fouli Papageorgiou, Arch.
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ABSTRACT. The ASPIS project represents an effort to demonstrate how the sustainability of open spaces in cities, such as urban and peri-urban parks, squares, pathways, river banks etc can be promoted not only through informed design and planning, but also through the engagement of citizens following a "bottom-up" approach. An international team of 9 organisations fro 7 European countries – including universities, research institutes, NGOs, Secondary Education Authorities, Planning Consultants and IT companies have joined forces, supported by the European Commission through the Lifelong Learning Programme, Transversal Programmes – Key Activity 3 ICT. One of the first tasks of ASPIS was to work out a list of sustainability criteria, covering a wide range of design and management issues of open spaces, to be used as a "guide" for the development of auditing tools for professionals and the public, with a strong "learning" element. Fieldwork in all participating countries and an extensive literature review contributed to the construction of a list of criteria, which was subsequently used to formulate the three learning & auditing tools of ASPIS: the sustainability game, addressing mostly environmental education in schools and awareness raising among adult members of the public; the Star Rating Tool, addressing mostly professionals for a "quick audit" of open space design, but also teachers and environmental educationists in NGOs; and the memory game, aiming to familiarise the users with the terminology and concepts of sustainable design. All the tools have been piloted with four target groups: secondary schools, university students, planning and design professionals and NGOs/members of the wider public and the results informed us about their best use with each target group. Action groups of "key stakeholders" have been formed in each country and plans for the exploitation of the produced tools in learning environments – such as secondary schools, universities and NGOs' environmental education programmes- have been created and put in action. The results so far demonstrate the large potential the ASPIS tools in the context of environmental education, sustainable design and engagement of the public in decisions that concern open spaces in cities.

1. Introduction and aims

The ASPIS project represents an effort to demonstrate how the sustainability of open spaces in cities, such as urban and peri-urban parks, squares, pathways, riverbanks etc., can be promoted not only through informed

design and planning, but also through the engagement of citizens following a "bottom-up" approach. An international team of 9 organisations from 7 European countries – including universities, research institutes, NGOs, Secondary Education Authorities, Planning Consultants and IT companies have joined forces, supported by the European Commission through the Lifelong Learning Programme, Transversal Programmes – Key Activity 3 ICT, to address these issues.

ASPIS aims to stimulate dialogue between urban citizens and professional architects and planners, with a focus on the sustainability of public open spaces. To achieve this aim, innovative IT tools and methods are used, including games-based learning, while networking among different "actors" in the city is encouraged. The project also encourages critical thinking and the development of negotiation strategies through role-playing and interactive communication, preparing both citizens and professionals for active public participation in urban planning. Learning is central in this effort, to establish a common understanding of the sustainability concept and sustainability criteria; and to make people aware of what is at stake when public open spaces are planned and designed.

The benefits of ASPIS are directed to the following target groups:
- the general public;
- secondary school students;
- planners, architects, landscape architects and related professionals;
- students of planning, architecture, landscape architecture and related professions.

The ambition of ASPIS is to contribute to the improvement of urban planning and design practices, with emphasis on sustainable public open spaces; to promote democratic governance at local level through public participation; to encourage empowerment of urban inhabitants, through learning, so that they can influence the shape and use of their immediate environment, such as communal open spaces; and to promote learning for all, by making learning more attractive and relevant to real life situations.

2. The ASPIS tasks

The ASPIS team carried out a number of key tasks that helped to achieve the project aims. These included:
- Defining a "working model" for the assessment of the sustainability of open spaces, which would include the concerns of both designers and users of such spaces.
- Finding out the learning needs of all 4 target groups, so that learning about sustainability would be relevant and useful to all
- Creating the learning tools, in an online form, using a game-based learning methodology
- Piloting the learning tools with all target groups in 6 counties
- Creating informal networks of organisations and key individual in all

participating countries to promote the exploitation of the ASPIS learning products

2.1. Sustainability assessment tools

One of the first tasks of the ASPIS team was to work out a list of sustainability criteria, covering a wide range of design and management issues of open spaces, to be used as a "guide" for the development of auditing tools for professionals and the public, with a strong learning element. To achieve this, fieldwork and an extensive literature review was carried out in all participating countries, and the results were analysed and codified. The fieldwork was based on two focus group meetings as well as individual interviews with "stakeholders" in the ASPIS countries, which helped to work out extensive lists of issues pertinent to the assessment of the sustainability of public open spaces, reflecting the concerns of all target groups of the project.

In parallel, an inventory of best practice was compiled, totaling 66 case-studies of public open spaces in 7 countries, presented in a searchable database in the ASPIS website as "best practice library" (accessible in http://data.prismanet.gr/aspis-case-studies/search_form.php   ).   The information presented in the Library includes:

- Profile of public open space: location, type, history, responsibilities
- Cost of investment and upkeep, funding
- Sustainability factors: good and bad practice, problems and achievements
- The role of local communities in designing and sustaining the open space: initiatives taken from local inhabitants or from local authorities
- Transferability of the example

The analysis of the material collected from the fieldwork, the case studies and the literature, pointed to eight groups of sustainability criteria, each groups being defined by sub-criteria. The groups are:

1. Variety / multiplicity of users
2. Security/safety
3. Maintenance
4. Accessibility
5. Organic relationship of the open space to the surrounding areas/the city
   5a. open spaces serving local needs
   5b. open spaces serving city-wide needs
   5c. Connectivity of open spaces
6. Design of the open space
7. Environmental sustainability
   7a. Biodiversity
   7b. Sustainable management of resources
   7c. Pollution & waste management
8. Local Governance and public participation
   8a. Local governance

8b. Public participation mechanisms

The full list of sustainability criteria and indicators can be accessed in http://www.aspis-learn.eu/images/pdf/sc%20en.pdf

The list of sustainability criteria became the basis of the "auditing model" for assessing the sustainability of open spaces, from the users' point of view and from the professionals' point of view. This list was utilised to create an online tool, the Star Rating Tool, which allows the user or the facilitator of learning to check the result of the assessment and allocate a sustainability rating to the open space. However, the sustainability list of criteria can be also used in printed format as an auditing tool *in situ* in an open space or in the office or classroom, for educational and/or public participation purposes, to raise awareness about the multi-dimensional nature of sustainability and the different issues involved in assessing it. Professionals can also use the tool as a checklist for design and management issues concerning public open spaces. The sustainability list has inspired the "scenario" of the online sustainability game, a learning product that introduces the users to the different issues of sustainability and invites them to solve the problems arising in the best possible way.

2.2. Learning tools

Three learning tools have been developed by ASPIS and are available online:

The **sustainability game**, an online game consisting of 8 quests, telling the story of a group of young skaters, who see their skating ramp at risk of being removed, following the local Council's decision to redesign and refurbish the local park. Helped by the brother of one of them who is a student of Architecture, and supported by the advice of the brother's professors, the player is invited to propose a new design for the park, which would be sustainable and functional, so that the local Council cannot refuse to consider it. The player is taken along a sequence of tasks, which correspond to the 8 quests of the game:

1. consider the needs and activities of the park users,
2. collect their suggestions on how the park can be improved and meet their needs better,
3. collect evidence of the present state of maintenance in the park, and recruit volunteers to help them with presenting their case to the local Council,
4. raise awareness of the local residents about the park;
5. bring in the experts to obtain advice about such issues as biodiversity pollution, sustainable management of resources and waste management
6. solve the puzzle of satisfying the maximum park users and minimising conflict
7. select the new park features and furniture keeping to a specified budget, so that the maximum rate of sustainability is achieved, while most users are satisfied as well
8. negotiate with the local Council, supported by a group of local

"stakeholders" and try to make the Council accept as many of the proposals formed in the previous steps.

There is an introductory video and an animated instructions screen, aiming to give the players the necessary information to start playing, while instructions about the technicalities of playing are provided inside the quests. Each Quest is a "mini-game" which loads in a separate window from the main screen.

The **Star Rating Tool**, allows for a "quick audit" of open space design, based on the sustainability criteria described above. The user is offered four options to assess the given open space against each of the criteria, assigning a value of 1 (poor, very little) to 4 (excellent, very high) in a 4-point scale. The results are presented at the end on a criterion-basis and overall basis, assigning the open space an audit result from one to four. To supplement the evaluation matrix and provide a comprehensive data analysis, it is possible to export the data into an Excel Spreadsheet using the CSV export option.

The **memory game**, aims to familiarise the users with the terminology and concepts of sustainable design. It is a classical fun memory game, based on the basic rules of memory games, i.e. remembering names and matching items. It can be used for ice-breaking in a learners' group and as a preamble to the terms and notions introduced by the sustainability criteria.

The three tools can be accessed online in http://www.aspis-learn.eu/index.php?option=com_content&view=article&id=63&Itemid=47&lang=en

2.3. Using the tools

All the tools have been piloted with the four target groups of ASPIS: secondary schools students, university students, planning and design professionals and NGOs/members of the wider public. The results have informed us about their best use with each target group, in terms of setting, method of delivery of learning, and role of the teacher or learning facilitator. In summary, the many points that have arisen from the piloting are:

The best use that can be made of the tools is in a learning group context, where the learning, either formal or informal, takes a structured form aided by a teacher or learning facilitator. Individual use cannot be excluded of course, but the benefits are not as tenable as in a group settling. The 3 tools can be used individually or in combinations, depending on the needs of the group and the method adopted by the teacher or facilitator.

It was shown by the piloting that the **sustainability game** gives good educational results in formal education, mostly at secondary school level but also at the first year of university courses, as a challenging learning environment which promotes critical thinking, problem solving and negotiation skills, while offering at the same time some good grounded knowledge of core sustainability issues related to the design and management of public open spaces. The sustainability game can be also fun in informal learning settings, facilitated by NGOs or local authorities, given

that a competent learning facilitator is present during use, and that the application of the tools is not limited to one session only.

The **star rating tool** or the sustainability criteria form in printed version, proved an attractive tool for professional designers and planners and for university students who have already been introduced to the design of public open spaces. This tool is also very handy to introduce in informal learning settings, especially the ones that might take place in a local open space, offering good results and attracting interest from the side of the user. In schools, the criteria list can be also used, although the support of the teacher needs to be heavier and more persistent for the students to comprehend the different criteria correctly.

The **memory game** can be introduced as an icebreaking tool, giving also the opportunity to teachers and learning facilitators to explain the terminology and concepts that are central to a discussion about sustainability. It has been well used by the secondary school students and, by the general public.

A **Handbook** for teachers and learning facilitators has been also produced to accompany the application of the three learning tools. The Handbook, is focusing on the educational aspects of the games by providing an introduction to the learning principles that guided the development of the learning tools, practical guidelines for the best use of the learning tools by teachers and learning facilitators within a formal or informal education context. The Handbook offers also brief outlines of the optimal application of the learning tools within each of the four target groups of ASPIS.

2.4 Networking and action taken for the exploitation of the ASPIS learning products

Action groups of "key stakeholders" have been formed in each country and plans for the exploitation of the produced tools in different learning environments – such as secondary schools, universities and NGOs' environmental education programmes- have been created and put in action. The results so far demonstrate the large potential the ASPIS tools in the context of environmental education, sustainable design and engagement of the public in decisions that concern open spaces in cities.

Two issues are pertinent in the exploitation campaign: to make sustainability a more tangible, everyday concept offering hands on experience to people; and to promote dialogue between the professionals and the public, and encourage public participation in design and planning of open spaces. To achieve this, a strategy is necessary, which includes the following steps:

- Form an action group representing stakeholders: strategic partners and spirited individuals, aiming to create a network of individuals and organisations, committed to the sustainability of open spaces
- Recruit the most appropriate strategic partners: local and central government, education authorities or management bodies, NGOs that operate as key players in environmental education etc

- Involve Key individuals: teachers, local activists in community groups, professionals…
- Build a two-prong strategy:

A.	Establish direct contact with the target groups through ad hoc events in open spaces and other venues – schools, natural history museums, local authority premises. The events may be initiated and mediated by NGOs, schools, adult education institutes, museums, etc. Use the ASPIS learning tools - evaluation tool and the sustainability game during the events; encourage the participants to play the game at home (follow-up learning, e-learning) and share it with friends and family. Call them back for a second session to discuss their experiences and problems that may have arisen.

B.	Organise training of teachers and facilitators of learning on how to use the learning tools in a group situation and as e-learning resources.

- Make an effort to mainstream the learning tools in the education system and in the public participation practices of the local authorities.

3. Conclusions

The ASPIS project has created a number of diverse learning and design-auditing products, related to the issue of sustainability of open public spaces in cities. The ASPIS team approached these tasks with the aim to popularise the notion of urban sustainability, especially as it relates to the design and management of public open spaces; and offer opportunities for systematic study in formal education and informal learning settings. The learning tools have been produced with all four target groups in mind – i.e secondary school students, university students, professional designers and planners and the general public. The learning methodology has been approached under a scope that gives great emphasis to innovativeness and a hands-on learning philosophy, based on the use of and the opportunities offered by the internet. Given the great importance assigned to the use of the learning tools with the help and support of teachers and learning facilitators, a Handbook detailing the educational background and the methodology for using the tools to the best advantage of learners has been developed to accompany the tools. Finally, the use of these tools, which address social issues and practices that are close to the concerns of all society, cannot be promoted unless it is supported by key stakeholders and authorities, and this has been one of the main concerns of the ASPIS team, through the set up and implementation of an exploitation strategy and action groups to bring it forward in all participating countries.

ABSTRACTS

THEME 1: SUSTAINABLE PUBLIC OPEN SPACES
Auditing the Sustainability of Public Open Spaces – the ASPIS project
Fouli Papageorgiou

The ASPIS project represents an effort to demonstrate how the sustainability of open spaces in cities, such as urban and peri-urban parks, squares, pathways, river banks etc can be promoted not only through informed design and planning, but also through the engagement of citizens following a "bottom-up" approach. An international team of 9 organisations fro 7 European countries – including universities, research institutes, NGOs, Secondary Education Authorities, Planning Consultants and IT companies have joined forces, supported by the European Commission through the Lifelong Learning Programme, Transversal Programmes – Key Activity 3 ICT. One of the first tasks of ASPIS was to work out a list of sustainability criteria, covering a wide range of design and management issues of open spaces, to be used as a "guide" for the development of auditing tools for professionals and the public, with a strong "learning" element. Fieldwork in all participating countries and an extensive literature review contributed to the construction of a list of criteria, which was subsequently used to formulate the three learning & auditing tools of ASPIS: the sustainability game, addressing mostly environmental education in schools and awareness raising among adult members of the public; the Star Rating Tool, addressing mostly professionals for a "quick audit" of open space design, but also teachers and environmental educationists in NGOs; and the memory game, aiming to familiarise the users with the terminology and concepts of sustainable design. All the tools have been piloted with four target groups: secondary schools, university students, planning and design professionals and NGOs/members of the wider public and the results informed us about their best use with each target group. Action groups of "key stakeholders" have been formed in each country and plans for the exploitation of the produced tools in learning environments – such as secondary schools, universities and NGOs' environmental education programmes- have been created and put in action. The results so far demonstrate the large potential the ASPIS tools in the context of environmental education, sustainable design and engagement of the public in decisions that concern open spaces in cities.

Baltic perceptions on the sustainability of public open spaces
Friedrich Kuhlmann

In the ASPIS project certain sustainability criteria were agreed upon, generated from interview and questionnaire outcomes of
different European countries. Throughout Europe 'Sustainability' or 'Public spaces' are understood differently because of differences in culture, heritage or climate. Still, there is need to qualify criteria which can be understood on

an international basis. Should the specific local context be reflected much more in the sustainability criteria or does it contrast with the need to understand each other?

This presentation aims to compare different perceptions on sustainability and public space with the cultural, economical and ecological context in which they are made. The local context appears in form of existing public open spaces, while the criteria were generated from interviews and piloting meetings in Estonia and Latvia. Different case studies of public spaces in Estonia and Latvia will be presented to describe this specific character of Baltic open spaces, because Baltic public spaces have functions, which differ from the typical use of public spaces in other parts of Europe. In many ways their main functions can be reduced to short-term public representation and extensive outdoor recreation.

The frame for the sustainability criteria of public space is defined by the main pillars of sustainable development (social - ecological –economic), therefore, the context can be also questioned along these pillars (social/cultural context – geographical/ecological context – economical context). The sustainability of public spaces is associated to certain qualities mentioned by different stakeholders in the Baltic context: These perceived qualities contrast with the specific reality of the Baltic environment, as a sustainable public space should be attractive for people, to see or meet each other, while in reality a public space often serves as a recreation area more than as a meeting place to support Urban life. Furthermore a sustainable public space should not only enable active use by different users and enhancing public mixture, while in reality the active use of public spaces is often tied to events and limited by seasons.

Valencia, the city with no-river.
The relation between public space and city
Joan Noguera Tur, Hèctor del Alcàzar Indarte

The city of Valencia was founded by graduated Roman soldiers in 138 b.C. in a fluvial island configured by the two arms of the Turia river, slightly away of the sea in order to be protected from maritime attacks.

As time went by, the South riverbed was dried and this permitted the growth of the city, remaining the other riverbed as the single physical manifestation of the river. The city was protected by a fort that has been widening during history, keeping the part of it that was confluent with the riverbed. Because of that, the river was during nineteen centuries an important element that contained the growth of the city to the North until the demolition of the fort in 1868.

After that, the relation between city and river was transformed and enhanced in both sides of the river. However, following the devastating flooding of the river in 1957 (recurrent fact in the city history) a big inundation was produced

that caused extensive property and personal damage. The population of Valencia, traumatized, supported the political decision of creating a new riverbed in order to take the river outside of the urban area.

This is why the old riverbed, closely intertwined with the city since its origins, remained as a big linear space without use. Although the Franco developmentalism wanted to transform the old riverbed in a motorway that would link the West entrance to the city (that one coming from Madrid) with the seaport of the city, a strong citizen mobilization - even though this was a dictatorship- was able to influence the City Council to transform it into a large urban park. In 1986, three decades since the flood of 1957, under democracy, the first part of the present urban park was opened.

This new green element uses the physical structure of the river, that conditioned in the past the growth and the structure of the city, allowing a green, pedestrian and civic space that organizes

the city. This new green lung has led to increased permeability between the built-up area of both sides of the riverbed, conditioned in the past to the necessity of using the bridges to cross the river, and has solved the lack of green areas in the city. It's a public open space on which the different adjacent neighborhoods are overturned, and where also some of the best sport facilities and cultural buildings of the city are situated.

Thus the current no-river is transformed in a linear urban park for pedestrians that suture and organize the city of the XXI century, making it more livable. The river has changed from an element that was a barrier during centuries to become the main element of the city. And all this is due to the requirement of the future model that people wanted for their city.

Antonis Tritsis Park as a Center of a Future Environmental and Landscape Network, in the Metropolitan Territory of Athens
Konstantinos Moraitis

The creation of an environmental and landscape network in the Metropolitan Territory of Athens has to take in account not only existing parks and minor planted urban areas, but also any other possible urban void that could be revitalized.

Our presentation describes such a visionary attempt for an Athenian "green" network, having as one of its focal central points the Park Antonis Tritsis, at the north west of the Greek capital. For this final purpose the existing links of streets that could be planted at their sidewalks or that could augment their linear plantation, would be extremely useful. An even

more challenging environment and landscape project concerns the intervention on the side zones of the open railway lines. In this way, networks of open railroad lines and networks of urban streets may be transformed to networks of urban biotopes, creating not only pleasant

walking paths but also zones for the development of a new urban ecosystem. To this complex result a third linear system of great environmental and landscape importance may be added.

This could be the system of the existing streams still running through the urban territory, offering valuable bio-diversity zones.

In addition, it is crucial to remark that the creation of such a network in the metropolitan territory of Athens may present, beside its environmental value, an important historical validity as well. A number of environmental useful places in the Athenian metropolitan area constitute archeological sites of unique historical quality. It seems appropriate, while analyzing urban environment or urban landscape in general, to treat natural as cultural entities at the same time, having in mind that "environment" as well as "landscape", do not refer as terms to the natural condition of a place only. Their final character corresponds to the result of the action

and interaction between natural and human factors, presenting a complex reality that appears to be even more important for the geographical territories around Athens, related to dense historical references.

Evaluation of the urban open spaces in Istanbul
Handan Turkoglu, Meriç Demir

Urban population increase that have been seen as critical to the future of the cities, it is clear that urban open spaces are one of the important aspects of the urban life. In this point of view, urban open spaces can provide many important opportunities. Thus the study focuses on the relevance of the urban open spaces to people's everyday life.

Public nature of urban open spaces presents benefits and opportunities on different kind of activities and sociability. Creating good urban spaces will improve many attributes in reference to the city, people and the urban life itself. Hence, in terms of urban design it is fundamental that the issue why some urban spaces gain success while others fail has to be discussed in detail.

Accordingly, in this study, based on the typology of urban open spaces Istanbul's urban open spaces will be presented. The general differences from the developed countries and unique, characteristic

values have been indicated. In detail, Taksim Square has been analysed historically as a planned and designed urban open space and its current affordances have been questioned.

KEYWORDS. Urban Life, Theory of Affordances, Urban Open Spaces, Incidental Public Places, Sociability

THEME 2: DESIGNING PUBLIC OPEN SPACES WITH PUBLIC PARTICIPATION
The 'Community Development Training Program' in Latvia
Jonas Büchel

In spring 2012 a piloting process with the ASPIS involved researcher Friedrich Kuhlmann from Tartu, Estonia took place in Riga and involved participants of the project "Radi Rigu!" (Create Riga!), focused on public space as a lever for social revival. Due to our experiences based on the neighborhood involvement during the same program in Riga, the project authors of the 'Community Development Training Program' consider to use the elaborated tools of the ASPIS program. The methods should be implement within the terms of the
training program in 2013.

The 'Community Development Training Program' (CDP) concentrates on the impact of shrinking population figures, the decline of local economies and a lack of infrastructural development on the social cohesion in rural Latvian and Baltic States municipalities. The designed training program aims to train local capacities to support their local communities and its economy on behalf of methods of community development work, thus promoting the idea of an alternative and independent approach of municipal development.

The long-term experiences in Western and Northern countries, with libraries and cultural centers serving as centers of local civic engagement offer a crucial knowledge for the Baltic States. With respect to the ongoing financial crisis in the Baltic States, efforts have to be taken in oder to strengthen a synergetic strategy of community, cultural and education development in the neighborhoods and communities of the respective areas. Library or cultural-center located community work offers a straight intervention instrument in order to
promote the local development by its inhabitants. A sustainable network of community centered and located institutions, serving as 'Cultural-Social Centers', supports the idea of social integration and cohesion. The venues are neighborhood centers by definition and have the ability to carry out innovative, open-minded and modern cultural work, open for everyone, creating a space for social inclusion and intercultural dialogue, hence developing communities at its very core and supporting a direct measurable improvement.

The research and training project development is carried out by the the Urban Institute, Riga and its cofounding partner, the University of Latvia, Faculty of Geography and Earth Sciences. The project will be implemented in 2013 in collaboration the Ministry for Regional Development of the Republic of Latvia. Urban space is as relevant for big metropolitan areas as for shrinking, remote communities, thus the by the ASPIS project offered tools are evidently the right instruments in order to raise awareness for urban and community life

quality and the sustainability of public space especially among younger inhabitants.

The future community developers will receive an opportunity to start an attractive, understandable, easy to access oriented participation supportive tool concerning the design of their environment.

As the training program involves many layers of activity, independent community development, decision making processes as well as cooperation with experts and planners, the Games-based Learning (GBL) methodology could foster the acceptance of the envisaged inhabitant involvement radically.

The Strength of Codesign: Citizens as Community Builders
Jenny Stenberg

Transdisciplinary research, integrating practice and academia, and including citizens as knowledge producers in urban development processes can lead to successful community empowerment in urban design. In such approaches, citizens are considered community builders and therefore are invited by the authorities to build knowledge by codesigning artifacts in urban space. This paper will present experiences from a Swedish project in the context of stigmatized outskirts of metropolitan areas, where inhabitants have been involved in codesigning a stage in a local park, to be built during the winter 2012/13. The project is carried out as part of a municipal project called 'Development Gothenburg Northeast' funded by the European Union and supported by a research project called 'INTERPLACE—The interplay between citizen initiatives and invited participation in urban planning' Funded by Formas.

Download Lomap and let the world know what you think of your neigbourhood or city!
Caroline Claus, Bram Allegaert

Get out in the streets and take pictures of your neighbourhood or any other place you feel you have an opinion about. Is it a place that gives you the creeps, or on the contrary, somewhere you feel completely at ease? Your home, friends, favorite hangout, intriguing graffiti, but also that alley full of garbage, a street that screams for a sidewalk,... you decide.

By choosing the right colours and tags you do more than 'just take a picture': you give us your opinion. And thanks to the lomo-effect, the world doesn't only know what goes wrong or right, but with the same effort you have a cool foto documentary of your neighbourhood.

Lomap is used by JES as a tool in a variety of projects and workshops. Mostly within a youth work context. One goal of the tool is to make kids and youngsters (more) conscious about their own environment and to stimulate

them to speak up about it. Another goal is the implementation of this tool within a design and planning context. JES strongly believes the opinion of kids and youngsters has to be heard and that it can make a difference in different domains and on several levels in our society.
Yota!

Citadelpark, a participation track seen from the perspective of the municipality
Nele Vanhooren

The Municipality of Ghent allocates much importance to knowing what is happening in the city, in discovering the expectations of the inhabitants and other city users, so as to attune and achieve its policy. In order to pursue this aim, it needs to be informed of the desires, concerns and difficulties of its citizens. Consequently, the Municipality of Ghent has a vested interest in the communication to its inhabitants. The basic principle is that participation will only succeed if people are being well informed. By various means of communication, they are first and foremost informed of the policy and are subsequently involved in the participation process in the broadest sense of the word. Whenever possible, inhabitants/users are being asked to express their opinion, to take part in the decision making.

There are two key boudary conditions in larger strategic projects such as Citadelpark for a well organized citizen involvement. First, a participation track has to be set up at the beginning of the planning proces. Secondly,the participation has to be embeddedin the project organization.

THEME 3: SUSTAINABILITY AND CLIMATE IN PUBLIC OPEN SPACES
Towards Sustainable Cities: Improving urban environment, through open space bioclimatic interventions
Margarita Karavasili

This paper will present urban microclimatic changes caused after bioclimatic interventions in public open spaces to combat «Heat Island» effect providing considerable energy savings and in the same time a more sustainable future. It presents some best examples of bioclimatic interventions, in Greece, by the transformation of busy streets to vegetated and shaded pedestrian ways, or by the transformation of squares and other open spaces, referring to the design based on local climate, aimed at providing thermal and visual comfort, making use of solar energy and other environmental sources, (for example, sun, air, wind, vegetation, water, soil, sky) for sustaining public open spaces. In the other hand, adopting a more balanced approach to accessibility and security could help to sustain both, business and community interests and to

make open spaces not only "elements" that embellish the city's character, but also a central and vital urban element which will be a good indicator of high level quality, where more people will want to join. Public spaces can stimulate again social relations and interaction through the presence of music, art, food, discussion and festive day celebrations. Designing public open spaces in the urban environment we have to consider seriously the bioclimatic approach in order to ensure thermal comfort conditions and in the same time to minimize the urban heat island effect and its consequences, as for to make cities more sustainable. Various models and tools of different complexity have been developed, tackling different issues of the physical environment and the resulting environmental performance. These, provide insight on the different aspects of the environment, and means for analysis at different levels of complexity, for a range of users from beginner to expert.

KEYWORDS. sustainable cities, heat island, microclimate, bioclimatic approach, shading, vegetation, materials, water, outdoor comfort

Use of public space in Baltic countries and climate aspects
Jekaterina Balicka

The importance of public space has become a paradigm in the research field of urbanism. The sufficiency and quality of green public spaces in urban districts is considered as very important for social life, city liveability, public well being, tourism development etc (e.g. Ciesura 2004, Vanolo 2008). From the other hand, it is important to not only speak about the presence or absence of quality in public space, but furthermore about the local specifics and needs, which may define the quality criteria of public space for each particular case.

Such criteria might include the fitting of public space design to the climatic conditions of the region, where it is located. The public space use in Baltic countries in its conventional way is limited in many cases (e.g. picnics, open-air cafeterias, long-time stay) to 5-7 months in the year due to the harsh winter conditions. But, in contrast to many Southern- and Central-European countries the variation in public space use in different seasons is very manifold.

The climatic aspect is a limiting factor for the public space design from one hand, but from the other, indeed, is a factor, which may enhance the variety of different public space use types within the seasons. This means also, that the climatic aspect should have an impact on the public space design methods. The areas, used in one or in the other way, depending on air temperature, wind conditions, sun exposure, amount of snow etc. should dispose flexible design, enabling to transform the place according to particular seasonal or even temporary needs.

This presentation will reflect on how different seasonal and temporary public space use types occur in the existing public spaces and what is locally

required in public space design in order to make a place as suitable for different use types as possible in Northern climate conditions.

THEME 4: ROJM EXTENDED
Workshop at Sint-Lucas.
INT MA Students I, II

As students from the International Master in Advanced Architecture Design and Sustainability of LUCA School of Arts (Sint-Lucas Architectuur), we had the opportunity to take part into a workshop that lead up to the ASPIS conference on design, participation, sustainability and ICT. We have been working for a whole week preparing presentations for the conference. This way we got involved in divers aspects of the conference: content wise and logistics such as ICT, reporting, hosting and editing the proceedings.
This conference offers an opportunity to link our Design Studio work (ROJM EXtended) with the ASPIS international conference.
We worked in different teams, mixing students from four different design studios. The goal of making a conference presentation not on a specific design, but on some underlying principles or strategies made us consider specific aspects of design and communication.

A first team worked on different ways of explaining the Design Studio project. They explain it as raising the question of how as an architect, we can use / design visual connections within the built environment to enhance social interactions.
The second team mentions that there is more than one way to achieve sustainability. Considering the site, program and context of the design studio in Mechelen, three core-issues rise out of this broad spectrum. The emphasis for this specific design finds its origin in social, economical and ecological sustainability.
The third team shows what they have learned in this design studio, through working on a real project with real stakeholders, can be applied to real life. Applying what they have learned in the Design Studio (social sustainability, universal design, teamwork) has informed their design process not just for this but also for future real-life projects, helping them to think in a different way to produce designs that are more socially, environmentally and economically sustainable.
The fourth group was responsible for the editing and the proceedings. Their work resulted in the book of the ASPIS international conference 2012.

For us this conference is an exceptional opportunity to put our own design and design theories to the test and run them by current theory on sustainability and practice on an international scale. Hopefully this conference will be transmutable into an input for our design studio.

THEME 5: ICT LEARNING / PARTICIPATIVE TOOLS

The potentials of affordable Geoweb 2.0 applications to support the deliberation of urban projects
Burak Pak and Johan Verbeke

In this paper, we discuss the potentials of affordable Geoweb 2.0 applications to support the deliberation of urban projects. We first introduce the conceptual design of a web- based geographic virtual environment specifically developed for the Brussels Capital Region in the framework of a long-term postdoctoral research project. Then, we present two alternative open-source prototypes for the implementation of this conceptual design and compare their usability with experts. Furthermore, we share our experiences from two field applications in the form of a brief case study and discuss the potentials of the proposed prototypes with a focus on their usability and supported forms of design empowerment.

Re-using Serious Games by encapsulating them in Learning Objects
Maurice Hendrix

The use of games within educational contexts has been gaining in popularity. There is evidence in literature that the use of games in certain contexts can increase learning outcomes compared to traditional learning materials. These "serious" games have been used in different fields of study for training purposes, for example in sustainability, cultural heritage, healthcare, disaster management, general education. Most of these games have been developed as standalone games. This requires a teacher to take undertake activities to blend them into the learning environment. Learning Management Systems are web-based e-learning systems for the delivery of educational content currently in use by many institutes and universities across the world. An increasing area of research is how the systems can support the delivery of a blended approach to learning and adaptive systems focusing on adaptivity and personalization as well as systems focusing more on delivering established pedagogies such as IMS-Learning design have been developed and integrated into LMSs. Research of e-learning systems has also lead to a number of different standards such as ADL-SCORM for sharing courses among systems and IEEE LOM for sharing content in reusable packages, so called learning objects. Despite their potential, most well-established e-learning systems and standards were not designed for integration with serious games. Hence consideration of how this integration could be achieved could allow improvement of the whole learning process, stimulating and motivating the learner through integrated game-based elements or content, whilst taking advantage of established techniques via traditional e-learning materials. This integration could also increase the potential to reuse of serious games or parts of games, allowing content repurposing methods

to be applied to Serious Games within modern LMSs. This presentation will review emerging trends in serious games repurposing, and show how describing games as learning objects can significantly evolve the state of the art in game-based learning approaches.

Games-based learning in planning: training programs for professionals and students
Helena Gutmane, Marc Geldof

Rapid democratization of physical urban environment combined with increasingly easy access to all kinds of information is transforming the historically established relationship forms between the public and the private. The result is the appearance of new, socially, economically and semantically still instable types of urban spaces. This fact requires new skills and shared language for professionals who are dealing with spatial production. This paper is mostly drawn from the initiative of a multidisciplinary team of practitioners in planning, architecture, landscape architecture, transport engineering and academics. The Project RADI RIGU!. a number of innovative workshops undertaken in 2011 – 2012, actualizes the role of urban public spaces in social revitalization processes and shows the communicative character of the urban project as a process. Its aim is to plant the idea of spatial strategic planning and elaborate new, more communicative tools as well as an "emotionally rich language" (Sandercock, 2001) for planners. Finally, it verifies in practice an integrative educational form of lifelong learning for practitioners and academic education for future professionals in planning. The methodology elaborated during the Program is inspired by a series of workshops on public space at the Belgian coast (Schreurs, 2007) and is based on the reconstruction of "talka", the popular form of voluntary work in the USSR. It uses the role-playing game approach – EAR (educate, act, realize), where the students are invited to participate in a "real life" of temporary planning laboratory. An atmosphere of a "planning office" is created by using various techniques: briefings, open cafes, elevator game, open space technology, World Cafe for discussions and brainstorming; social diving, ethnographic investigations for the exploring the case territories, actual tasks formulated by the municipality/community and practical value of the outcome of the learning process.

The paper uses the following courses as case studies: the program "CREATE RIGA!", the course for the students of Master program in spatial planning by Latvian University, faculty of Geography and Earth sciences, as well as planned training international program between Flanders and Latvia, and planning studio within MaUSP program at KULeuven. Analyzing aforementioned examples, the authors undertakes attempt to show:

- the relevance of the integrative approach to professional education in the planning realm;

- the benefits from gaining experience through learning the processes of urban project from preparation and project definition to project management, maintenance and governance, interwoven in the design and participation process;
- the importance of tying together practical work and theoretical knowledge in the process of planning education for both - "real life" and learning process;
- the efficiency of applying the interactive approach of the role-playing game to planning education, which reflects the communicative nature of planning and design.

The methodology has a resilient character. It complies with a planning cycle which analyzes an existing situation, develops a vision about a better future, implies transformations and evaluates these in the light of a next cycle (Schreurs, J., Moulaert, F. 2012) and marks a shift towards ecological approach to planning education.

KEY WORDS. game based learning (GBL), spatial co-production, spatial quality, participatory design, public spaces, lifelong learning,

A locative urban game to collectively visualize spatial tactics
Discussion of a case-study
Simona Sofronie, Oswald Devisch

The demand for participatory practices within the field of urban planning in Flanders is increasing. This demand is a/o spurred by the increasing (apparent) self-reliance of individual citizens (Santens, 2006) and the growing complexity of urban planning a/o caused by the large number of players typically involved in a planning process. This demand is acknowledged within spatial policy documents such as Spatial Structure Plan for Flanders (1997), introducing the term co-production, Witboek Stedenbeleid (Boudry, 2003), introducing the concept of the urban debate, and Beleidsplan Ruimte Vlaanderen (2012), actually organizing such an urban debate. Also the Stadsvernieuwingsprojecten consider the range of instruments that a city plans to employ to actively involve the population and local actors in the preparation, execution and follow up of new projects as one of the criteria to grand subsidies. Apart from generating policy documents, this demand is also triggering a search for innovative tools to support participatory processes (von Borries e.a., 2007; Foth e.a., 2011; de Lange & de Waal, 2012). This paper presents such a tool, namely a tool to visualize aspects of spatial tactics that people employ when using public open spaces. Spatial tactics are defined as the way that people adjust their behavior to spatial and social settings (De Certeau, 1984). Existing tools to map tactics draw heavily on ethnographic participant observation (Soenen, 2006). The tool presented in this paper, on the other hand, is a locative urban game relying on recent developments within social and locative media. These particular ICTs are

selected because they connect the players with the physical settings, they facilitate both off-line and on-line interaction, they allow the game-master to redirect the game in real-time, they invite for long term engagement, etc. The paper will summarize the conceptual framework of the game, describe a case study and illustrate the three following contributions of employing locative urban games in spatial participatory processes:- the game is able to collect information on spatial tactics which may prove valuable for spatial experts having an assignment on the case-study location.

- the game is was able to increase the understanding among the players (being not spatial experts) of the spatial and social functioning of the case-study location.

- the game is was able to motivate people to engage in a spatial participatory processes.

The ASPIS learning tools.
David Wortley

Panel on the piloting of the ASPIS learning tool.
Marianna Tsemperlidou – Friedrich Kuhlmann– Tomas Ooms – Joan Noguera Tur

THEME 6: BEHAVIOURAL AND SOCIO-CULTURAL ASPECTS
Participation in public space. Projects in Brussels, some case studies.
Livia de Bethune, SUM Architects

The spatial organisation of public spaces in terms of communication and urban public life
Meriç Demir

Human are entities that are totally different and unforeenly variant by means of their individual attributes such as perception, personality, culture and habit besides their basic physical and mental attributes. Yet, in this variance, the most important common points are their search for the space which develops according to their similar needs and the need of living in groups since the era that man began hunting. This search and need appears as an absolute advance in collectivity and people's skills in protecting and thinking about each other, therefore sustaining a healthier communication process.

The term "communication" is derived from a Latin word "communis" which is defined as shared, common, universal and public in English. Considering the other terms that have been derived from the same word such as commune, communal, community etc. it is clear that the term communication refers to the term "public" in the sense of "concerning, or available to the people as a whole". In this aspect, the terms "communication" and "commun(al)" must be

deal together by realizing that communication is for commun inherently. In other words, communication itself must be received as a process that allows any individual to become socialized for the purpose of adapting them both to each other and also to the surrounding natural / artificial environment affecting all kind of public relations. As a matter of fact, a very unique type of urban public life emerges in consequence of the mentioned interaction of individuals through communication.

In terms of urban design, these two common traits of human that develop the main subject of this study is concealed in the problematic of the design of public spaces, yet the grade of quantitative, qualitative features of public spaces are prior in context of the relations of people with each other and the city that they live in. In consequence, this study discusses the relationship between spatial organisation, social communication and contentment of life, emphasizes that the guidance can be achieved through the intermediacy of urban design will be improving the degree of awareness concerning city and public by a user based organisation through the communication attribute of public spaces.

The comparison of tradition Otoman and modern Turkish open spaces
Dr. Guler Koca, Dr. Rana Karasozen

Use of open space differs at traditional Ottoman and Modern Turkish settlements. Open spaces at these settlements can be classified as the public and private spaces. Shopping and dwelling areas were separate in Ottoman settlements. Open public spaces of Ottoman towns were the open markets, trading courtyards, courtyards of the mosques, fountains and alleys. Promenades and squares as public spaces were not common during Ottoman Empire period until Westernization effects in 18th Century. Courtyards and gardens of the houses were the open private spaces of the towns. They were open spaces of the houses which were designed to protect the privacy of family life. Use of private open space also started to change with Westernization effects beginning from 18th Century. Shopping and dwelling areas started to come together during late Ottoman period and promenades and squares as public spaces started to be common especially in Istanbul. Urban plans of the cities started to be made after foundation of the Republic in 1923 and Ankara, the new capital city of the country, was a prototype for the others convenient to the modernism ideology. Wide boulevards, squares and parks were the main open public spaces of the modern town. In addition to this, private open spaces of traditional dwellings have changed into semi-private and semi-public spaces with increase of multi-storey houses, mass houses and isolated settlements surrounded with high walls. The comparison of open spaces at both traditional and modern

Turkish settlements as public and private uses will be examined in terms of social environment in this paper with their positive and negative aspects.

Building with society – Architecture as an instrument to affect social change.
Stefanie Cornut

Aspects of utilization and sustainability in a public space – a Hungarian example
Laszlo Jona Ph.D student

During my doctoral school studies I have dealt with open public spaces. One of them is the Batthyány square in the city centre which is a typical city park with many different functions, such as playground, walking paths with benches, public lavatory, lavatory for dogs, rules of road park with traffic signs for children. Therefore it fits properly to the ASPIS project examining sustainable public open spaces. In the first part of my presentation I describe the history of the Batthyány square, after that I present the assessment about the traffic of the square which was surveyed in 2011. In this survey we examined the number of the pedestrians, bicyclists, playground users, dog walkers, and the adults and mothers with small children sittings on benches. The results showed the utilization of the different functions and facilities in the park. In the second part of my presentation the results of the survey will be also described, which examine what functions are expected by the people in this park. The results of the traffic study and the survey of the Batthyány square have showed how fits the square of the requirements for the citizens in the 21st century. and why it can be called sustainable.

Theme 1:
Sustainable Public Open Spaces

Baltic perceptions on the sustainability of public open spaces

Prof. Dipl.-Ing. Friedrich Kuhlmann
Estonian University of Life Sciences
Department of Landscape Architecture

ABSTRACT. In the ASPIS project certain sustainability criteria were agreed upon, generated from interview and questionnaire outcomes of different European countries. Throughout Europe 'Sustainability' or 'Public spaces' are understood differently because of differences in culture, heritage or climate. Still, there is need to qualify criteria which can be understood on an international basis. Should the specific local context be reflected much more in the sustainability criteria or does it contrast with the need to understand each other?

This presentation aims to compare different perceptions on sustainability and public space with the cultural, economical and ecological context in which they are made. The local context appears in form of existing public open spaces, while the criteria were generated from interviews and piloting meetings in Estonia and Latvia. Different case studies of public spaces in Estonia and Latvia will be presented to describe this specific character of Baltic open spaces, because Baltic public spaces have functions, which differ from the typical use of public spaces in other parts of Europe. In many ways their main functions can be reduced to short-term public representation and extensive outdoor recreation.

The frame for the sustainability criteria of public space is defined by the main pillars of sustainable development (social - ecological –economic), therefore, the context can be also questioned along these pillars (social/cultural context – geographical/ecological context – economical context). The sustainability of public spaces is associated to certain qualities mentioned by different stakeholders in the Baltic context: These perceived qualities contrast with the specific reality of the Baltic environment, as a sustainable public space should be attractive for people, to see or meet each other, while in reality a public space often serves as a recreation area more than as a meeting place to support Urban life. Furthermore a sustainable public space should not only enable active use by different users and enhancing public mixture, while in reality the active use of public spaces is often tied to events and limited by seasons.

Valencia, the city with no-river
The relation between public space and city
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ABSTRACT. The city of Valencia was founded by graduated Roman soldiers in 138 b.C. in a fluvial island configured by the two arms of the Turia river, slightly away of the sea in order to be protected from maritime attacks.

As time went by, the South riverbed was dried and this permitted the growth of the city, remaining the other riverbed as the single physical manifestation of the river. The city was protected by a fort that has been widening during history, keeping the part of it that was confluent with the riverbed. Because of that, the river was during nineteen centuries an important element that contained the growth of the city to the North until the demolition of the fort in 1868.

After that, the relation between city and river was transformed and enhanced in both sides of the river. However, following the devastating flooding of the river in 1957 (recurrent fact in the city history) a big inundation was produced that caused extensive property and personal damage. The population of Valencia, traumatized, supported the political decision of creating a new riverbed in order to take the river outside of the urban area.

This is why the old riverbed, closely intertwined with the city since its origins, remained as a big linear space without use. Although the Franco developmentalism wanted to transform the old riverbed in a motorway that would link the West entrance to the city (that one coming from Madrid) with the seaport of the city, a strong citizen mobilization - even though this was a dictatorship- was able to influence the City Council to transform it into a large urban park. In 1986, three decades since the flood of 1957, under democracy, the first part of the present urban park was opened.

This new green element uses the physical structure of the river, that conditioned in the past the growth and the structure of the city, allowing a green, pedestrian and civic space that organizes the city. This new green lung has led to increased permeability between the built-up area of both sides of the riverbed, conditioned in the past to the necessity of using the bridges to cross the river, and has solved the lack of green areas in the city. It's a public open space on which the different adjacent neighborhoods are overturned, and where

also some of the best sport facilities and cultural buildings of the city are situated.

Thus the current no-river is transformed in a linear urban park for pedestrians that suture and organize the city of the XXI century, making it more livable. The river has changed from an element that was a barrier during centuries to become the main element of the city. And all this is due to the requirement of the future model that people wanted for their city.

The city of Valencia was founded by graduated Roman soldiers in 138 B.C. They occupied a fluvial island configured by the two arms of the Turia River, slightly away of the sea in order to be protected from maritime attacks. The new urban core was under the influence of Saguntum, an important Roman city founded in the Fifth Century B.C. located 35 Km to North.

The city soon was fortified to protect itself from possible attacks from the strength of the river on the occasions that it overflowed, leaving different gateways to the municipality. When the city was founded the river was navigable in the North arm, where a river port was located close to the access into enclosure. The fort was made tangent to the physical boundary of the two riverbeds, which were the limit of the fortification on the North and South.

Valencia went through different phases of domination, highlighting the Muslim times and the subsequent Christian. During the Muslim period (711-1232), the city had a moment of rise and development after the fall of the Caliphate of Cordoba in 1010. This fact allowed building a new fort. Today there are still some small buildings on the plot city from that time as well as some archeological remains in the underground floors of certain buildings in which action was taken, leaving visited.

In 1232 the city was conquered by Christian and went growing in population. Three communities were cohabiting in it: Christians, Jews clustered in a delimited zone (Jewry) inside the fortification and Muslims grouped in other extramural enclosure (Moorish quarter). In midfourteenth century a new fort was built which allowed not only to incorporate Moorish, but also to improve the defenses and to leave a generous foresight of land that would allow the growth of the city until the mid-nineteenth century. To allow this increase of land to the South, the South riverbed had to be dried. Thus, the rampart delimited the urban area (inside) of the rural zone (outside where orchards were developed). As a result of the construction of this latter fort, which had forced the removal of the river in the South riverbed, the physical characteristics of the initial site were transformed because Valencia went from being a city located in a fluvial island to be an inner city with a river at the northern boundary.[1]

In the fifteenth century the city experienced a period of economic, cultural and artistic splendor. At this time the local industry (with textiles in the lead)

had a great impact that transformed it in one of the busiest cities in the Mediterranean Sea. Taking advantage of this economic boom, it was in this period when some of the most emblematic buildings, that still survive, were built as Serrans Towers (1392-1398) or the Silk Exchange (1482-1498).

Despite the morphological change, the city continued to maintain a great relationship with the river. The built-up area was growing inside the fortification according to the population growth.

During the so called Independence War (1808-1814) the city suffered first the siege and then the defeat against Napoleon's troops (1812). Although the French domination was short, it had relevance to the structure of the city because some urban interventions were made to improve it, giving some public open spaces.

Once the invading troops were expelled, the city continued to grow within the limits set by the fort to the point of consuming all the available land. But the population continued to grow. It caused that to assume this population growth, constructed area was rolled leading to overcrowding, poor hygiene and unsanitary. In 1858 a widening project was conducted, which continues to highlight the river as a boundary to the North, the elimination of the medieval battlement and the new expansion area surrounded by a new fort.

This project was not carried out, but shows the will to increase the urban area given the need to break the suffocating corset and improve the living conditions of citizens.

Finally, in 1865 the fort was definitely demolished to allow the extension of the urban plot. From then, only two gateways to the city were left standing: Quart Towers and Serrans Towers.

1 More information about the genesis of the city until the fifteenth century: RIBERA, A.: *La fundació de València. La ciutat a l'època romanorepublicana (segles II-I a. de C.)*. València, Estudis universitaris 71, Institució Alfons el Magnànim, 1998; LLOPIS, A., PERDIGÓN, L., TABERNER, F.: VALENCIA: *138 a. C.- 1929. De la fundación de la ciudad romana a la configuración y colmatación de la ciudad burguesa. Síntesis de su desarrollo urbano y arquitectónico*, Faximil, 2009; or SANCHIS GUARNER, M.: *La ciutat de València.*

Sintesi d'Història i Geografia urbana, Valencia, 1976.

Despite the disappearance of the rampart, the river remained the northern edge as it acquired more prominence as a physical barrier to contain the growth of the city in that direction. The first urban expansion that can be considered modern was that one done in the early years of the twentieth century, when a wide area arose with the referent of the Cerda Plan developed in Barcelona. Then in Valencia, as in the Catalan capital, the grid was imposed, great importance was attached to the section of the street in relation to building heights and hygienists' criteria were prevailed to promote ventilation and lighting.[2]

Thus, with the realization of the extension it can be differentiated between the *old* Valencia (Roman, Muslim, Christian, Medieval and Pre-modern), which is result from its development restricted by the limits of the various fortifications along history, and the Valencia may be called *modern* which is configured by the construction of first expansion and is characterized by large pathways that structure the new area to which soon moved the agrarian and commercialbourgeoisie.

As shown in the graphic documentation of the city[3], the vision to the territory was expanded with the destruction of the fort. After the disappearance of the fortified belt, the river maintained a very important relationship with the city, as throughout its history, but also was increased the relationship with the sea and with neighboring municipalities, both North and East, which over time would be annexed.

It's easy to look at the drawings in the late nineteenth century and early twentieth century the appearance of other physical elements, as the implantation of the railway which conditioned the future growth of the city. In addition to the rail lines (to Madrid and to Aragon and Catalonia), the

road axis that connects the city with the seaport acquired a great importance. An important industrial growth in the city and the consequents workers' housing were supported on this axis.

In a more shy and demure, it was also produced an urban expansion beyond the left bank of river. This urban growth process determined that the riverbed stopped being a reality outside the city, to the extent that both sides were already urbanized and populated area.

2 To deepen in the first expansion: BLAT, J.: *Vivienda obrera y crecimiento urbano (Valencia 1856-1936).* Valencia, Generalitat
Valenciana – COACV, 2000; VV.AA.: *La manzana como idea de Ciudad. Elementos Teóricos y propuestas para Barcelona*. Barcelona,

2C Ediciones, 1982; or VV.AA.: *El ensanche de Valencia de 1884*. Valencia, Colegio Oficial de Arquitectos de Valencia, 1984.

The flood of 1957 and consequences

The relationship between Valencia and the Turia has been always mixed. The worst situations were the repeated flooding of the river. Between 1321 and 1957, 22 accomplished overflow, 11 floods and 15 news of flooding without reference to the magnitude of the event are registered.

The most devastating of these was held on 13 and 14 October 1957: a great flood caused extensive property and personal damage. This time, in addition to the larger city regarding previous floods, the disappearance of the battlement that had helped to contain the water in others overflows of the past left free passage to the water to some areas of Valencia.

The height reached by the water was very varied, reaching somewhere to 5.20 m. Maritime districts were especially punished. Instead, the area around the cathedral was free of water, demonstrating the good location chosen by the Romans to found the city. The number of fatalities was hidden by the dictatorship, but the various sources open a range of between 80 and 400 dead.

After this event, the Valencian society was traumatized and with the strong will and the need to avoid any possibility of a repetition of a similar situation in the future. A Special Technical Committee was created to conduct a study to propose and analyze different possibilities which

prevented flooding in the future. They raised three plans: North, Central and South. The first was the deviation of the river to the North, linking the Carraixet ravine; the second was the construction of an upstream regulatory dam and improving the existing riverbed; and the third was based on the deviation to the South, building a whole new riverbed.

3 Graphic documentation of Valencia: HERRERA, J.Mª. et al: *Cartografía histórica de la ciutat de Valencia, 1704-1910*. Valencia,

Ajuntament de Valencia, 1985; or LLOPIS, A., PERDIGÓN, L.: *Cartografía histórica de la ciudad de Valencia (1608-1944).* Valencia,
Universitat Politècnica de València, 2010.

Finally, in July 1958, the called South Plan was chosen. The works began in 1964 and were concluded in 1973, although the planned program wasn't completely done. Thus, a new riverbed was performed of 12 km long and 175 m wide, capable of draining 5,000 cubic meters per second in the new river mouth, located 3 km South of the city. Once this major water infrastructure was finished, the river was diverted, leaving the old riverbed unused.[4]

The large urban change which involved the decision to build this important infrastructure, forced the review of the envisaged planning for its impact on the territory. So in 1966, had already begun the construction of the new riverbed, a new Urban Development Plan (UDP) was performed, which emphasized the willingness of Plan's editors to use the old riverbed as a highway to cross the city from West to East, connecting the access to the city from Madrid to the seaport.

Note that at this time in Spain, which was under a dictatorship since 1939, the called *Franco developmentalism* was prevailed, i.e., rapid, messy and unplanned growth of the cities through a very strong speculation and a bad urban policy determined by private interests. So, in the decades of the 60s and 70s, many suburbs were built lacking any urban planning (lack of green spaces, endowments, ...), inhabited mainly by native workers from neighboring counties that are integrated into the new industry, trade and services of the city and fundamentally by migrants
from inland Spain leaving poor agriculture in search of a better life for themselves and their children.[5]

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4 To learn more about the floods in Valencia and their consequences, consult: ALMELA, F.: *Las riadas del Turia (1321-1949).* Valencia,
Exmo. Ayto., 1957; CARMONA, P. et OLMOS, J.: "Río y ciudad: El caso de Valencia", *OP Revista del Colegio de Ingenieros de*
Caminos, Canales y Puertos 28, 1994; or ALMELA, F.: "Observaciones al margen del Turia": in "Las inundaciones de Valencia en 1957.
Historia de la riada y perspectivas de la ciudad", *Propiedad y Construcción, 21 y 22*, 1959, pp.17-30.
5 More information about the influence of dictatorship in the city: GAJA, F., BOIRA, J.V.: *Planeamiento y realidad urbana en la ciudad de*
Valencia (1939-1989). Cuadernos de Geografía 55, Valencia, 1994; VV.AA.: Historia de la Ciudad II: Territorio, Sociedad y Patrimonio.

Valencia, CTAV-Ajuntament de Valencia-Universitat de València, 2002; or CARNERO, T., ARCHILÉS, F.: *Europa, Espanya, País Valencià. Nacionalisme i democracia: Passat i futur*. Valencia, Universitat de Valencia, 2007.

In this atmosphere, and with the solution adopted by the City Council to pass a highway by the old river bed, there was an extraordinary mobilization of citizens who opposed such action and demanded the ownership of the riverbed as green space for enjoyment of citizens. The civic movement, in which neighborhood associations had great weight, was coalesced and mobilized in the final moments of the dictatorship under the slogan "El llit del Túria és nostre i el volem verd" (The riverbed of the Turia is ours and we want it green). The mobilized people required the transformation of the riverbed in a linear park that palliated the great shortcomings of green areas and public spaces of the city. This claim of great social support was the result of a deliberate policy to improve the lives of the inhabitants of the city by the improvements in the urban environment.

The strong popular pressure that was supported by major professional groups, such as the Architect Association, obtained that the City Council would backtrack and request the central government the transfer of land from the old riverbed to the city of Valencia. The transfer of the property was materialized in 1976 through a decree sign by the King, while in 1979 final approval of consigning this space before river as green area and public park occurred, coinciding with the first democratic elections which were victors left parties, socialist party and communist party. In 1980 the Amendment of 1966 UDP was made to capture the change of use of the riverbed from highway to green area.

A competition of ideas was performed in 1978 when it had been already agreed to use as a city park. But it was sanctioned by the first democratic council in 1979. In 1981 the Advancement of the Special Interior Reform Plan of the Old Riverbed Turia was commissioned to Ricardo Bofill's Architecture Workshop. The vast linear project was broken into 18 stages to be developed in different phases. On February 27 1986, nearly three decades after the terrible flood, the work of the park began. With them a new phase of urban history of Valencia began: after that one, we called *old time* (until 1865 with the demolition of the fort), and the other one, we called the *modern era* (from that time until the 1957 flood), the era of the current Valencia began. So the old riverbed has become perhaps the most prominent active urban of the city of no-river.[6]

6 To further explore the transformation of the riverbed: BOFILL, R.: *El jardí del Túria*. València, Ajuntament de València, 1982; DE

INSAUSTI, P., VTiM: *El Turia y la ciudad de Valencia. Propuestas y Proyectos de utilización del viejo cauce como parque urbano*.

Valencia, Colegio Oficial de Arquitectos de Valencia, 1990; or VV.AA.: *El jardí del Turia*. Valencia, Ajuntament de Valencia, 1982-1986.

The current no-river

The river diversion and the transformation of its old bed in open public space triggered other important consequences for urban and spatial planning of Valencia. The elimination of the river from its natural course allowed the redevelopment of the East area of the city near the riverbed, because it could start to build on land previously unthinkable. As it was the natural outlet to the sea of Turia, it was forbidden to build on them for being floodplain. In this area near the river mouth the street and the river bed tend toward the same height, so it had always been difficult to contain water between flimsy lateral limits, even carrying little water.

Beyond the impact on the area close to the sea, called maritime towns of Valencia, such an intervention as important as this one mentioned, has produced many changes in the city and the surrounding territory. Among them, the most important were: a) the creation of a territorial infrastructure (new riverbed of South Plan) which established a new southern boundary of the city, b) the achievement of an urban park for the large city (so we can speak of successful citizenship struggles); c) the possibility of building on land due to its proximity to the river were until then, it had been forbidden because these were flooded areas; and d) the possibility of expanding the port to the South, by appropriating the river mouth without worrying about the consequences of stationary floods.

The conversion of river in urban park is now, together with the renewed and expanded relationship of the city with the sea, the two elements that articulate and represent Valencia in the twenty-first century. The relationship with the sea was enhanced by the construction of a pedestrian seafront, from 1990 to 1994, which runs parallel to the coast around the waterfront of the city to meet the port.

As for the no-river, it is a new green element, which uses the existing infrastructure of the old riverbed to develop itself. The large deficit of public space, and in particular green space, in Valencia (a city of over 700,000 inhabitants, reaching the million and a half if we count the population of the metropolitan area) was achieved palliate by obtaining this longitudinal park.

The geographic element which delimited the city on the North for twenty centuries has become, thanks to the change of use from river to urban park, in the backbone of the city, crossing it from West to East along the sinuous route always configured by water. This park has become the green lung of the city, connecting and interacting with the other two major historic green

areas of the city: the Botanical Garden of the University of Valencia and Viveros Garden.

The new park links the two banks of the ancient river, sewing the fabric of the city on both sides, as well as becoming a magnet for recreational activities of its inhabitants. The garden is a continuous linear element which has exponentially increased the availability of public open space in the adjacent neighborhoods, causing them to tip over toward it. That's why we talk about a park that could be described as a series of parks, which has enriched and oxygenated the adjoining neighborhoods of both river sides Futher to the Green area use, also the space of the old river is used to place sports facilities lacking in the neighborhoods built in the last fifty years, result of the lack of urban planning during the *Franco developmentalism*, when was promoted speculation property without the slightest pretension to create city.

The importance acquired by the green and structuring axis was enhanced further when a number of cultural facilities were located on its scope. Some were new constructions but others were rehabilitated historic buildings to receive this function. Among them we should mention the IVAM (Valencian Institute of Modern Art), the Museum of City History, the Museum of Fine Arts St. Pius V and the Music Palace. In addition, the no-river offers other emblematic equipment of the Valencia of the twenty-first century, as the City of Arts and Sciences (the Hemispheric, the Aquarium and the Palace of Arts) that, unlike the rest, are not located on the perimeter of the old riverbed in street level but are built to the height of the bed of the ancient river.

The conversion into green area has also allowed increasing the permeability between the builtup areas on both sides of the river, conditioned before by the need to use the bridges to save the old bed, because a lot of pedestrian accesses have been done for descending to the park on both banks. It allows getting across without using the bridges. Moreover, this union has been also boosted by building new bridges in the last years to reach the figure of 18 today. As it has been already noted, the garden is developed at a much lower level compared to the height of the perimeter streets. This fact would make the relationship with the city, once inside, it would be dematerialized and would allow the passer abstract from being in the middle of a city. This is due to the fact of being in lower bound, and thanks to the presence of a large number of trees, the disturbing traffic noise would be perceived with low intensity and, in addition, the visual relationship of the walker is basically with the vegetation and with the delimited recreational and sports facilities which are inside too.

In 2004 Cabecera Park was completed, last action so far, which is the beginning of the action in the no-river. It is in the west extreme of the linear park, the furthest from the sea, unlike other tranches where water has been relegated to an anecdote, this part has been worked to create a lake and to modify the existing topography in some cases for establishing several different environments. In Cabecera Park it is also found a footbridge that

crosses it perpendicular in height, connecting the entry and the administrative area of the new zoo (Bioparc) with area where the animals are.

The last stretch of the river, where it meets the coast at the eastern end of the park, is unfinished but it was raised the future connection with the inner harbor in some unrealized projects. If this proposal is made the citizenship of the popular Nazaret neighborhood will win a very large green playful area. It would also be a form of urban justice, because this

neighborhood -one of the maritime towns, perhaps the most degraded- has been the most affected by the expansion of the port and the construction of the new riverbed of Turia.

Thus the current no-river has become a linear and pedestrian urban park which sews and structures the city of the twenty-first century, making it more habitable. It has gone from an element which for centuries was a barrier and a focus of danger by their periodic overflowing, to an element that organizes the city. And this great performance, which has completely transformed the structure of Valencia, is due in great measure to the will of the citizens of the mid-seventies of the last century; men and women who despite living under a dictatorship that repressed and punished with extreme hardness everyone whom were considered opponents, were able to fight with their demonstrations to participate in the design of a future model city in which public use of urban space was prominent, especially in the old river bed. That is, a model city whose growth will be based on the strengthening of public space that allowed the conversion of the Turia's riverbed in a park. A riverbed in which a river discoursed in the past, a river that has been closely linked to the history of the city where the old Roman legionaries raised as a resting place two centuries before our era.

Drawing of the different forts

Valencia 1704. Padre Tosca

Valencia 1944.
Direccion general del Instituto geografico y catastral

Flood 1957

Flood 1957

Proposed Highway

Exposition 1982: Turia Park

Inside the riverbed

Relation between riverbed
and perimeter street

Athletics track in the riverbed

Inside the riverbed

Riverbed in relation with City of Arts and Sciences

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Drawing of the different forts Valencia 1704. Padre Tosca Valencia 1944. Dirección general del Instituto geográfico y catastral Flood 1957

Flood 1957 Proposed Highway Exposition 1982: Turia Park

Inside the riverbed Relation between riverbed and perimeter street Athletics track in the riverbed

Inside the riverbed Riverbed in relation with City of Arts and Sciences

Antonis Tritsis Park as a center of a future environmental and landscape network, in the metropolitan territory of Athens

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ABSTRACT. The creation of an environmental and landscape network in the Metropolitan Territory of Athens has to take in account not only existing parks and minor planted urban areas, but also any other possible urban void that could be revitalized.

Our presentation describes such a visionary attempt for an Athenian "green" network, having as one of its focal central points the Park Antonis Tritsis, at the north west of the Greek capital. For this final purpose the existing links of streets that could be planted at their sidewalks or that could augment their linear plantation, would be extremely useful. An even

more challenging environment and landscape project concerns the intervention on the side zones of the open railway lines. In this way, networks of open railroad lines and networks of urban streets may be transformed to networks of urban biotopes, creating not only pleasant

walking paths but also zones for the development of a new urban ecosystem. To this complex result a third linear system of great environmental and landscape importance may be added.

This could be the system of the existing streams still running through the urban territory, offering valuable bio-diversity zones.

In addition, it is crucial to remark that the creation of such a network in the metropolitan territory of Athens may present, beside its environmental value, an important historical validity as well. A number of environmental useful places in the Athenian metropolitan area constitute archeological sites of unique historical quality. It seems appropriate, while analyzing urban environment or urban landscape in general, to treat natural as cultural entities at the same time, having in mind that "environment" as well as "landscape", do not refer as terms to the natural condition of a place only. Their final character corresponds to the result of the action

and interaction between natural and human factors, presenting a complex reality that appears to be even more important for the geographical territories around Athens, related to dense historical references.

A cursory inspection of the map, presenting the metropolitan territory of Athens, will confirm that the non-built area of Antonis Tritsis Park occupies a central position amongst other important non-built areas of the city formation. However the importance of the park zone has not only to do with its identity as an extended urban void amidst a highly populated metropolis, but also

with its natural bas-relief form. The zone of the park, being lower in comparison to the higher neighboring mountain territory which extends to the west and north-west, seems to offer an immediate receptacle for the natural water drainages.
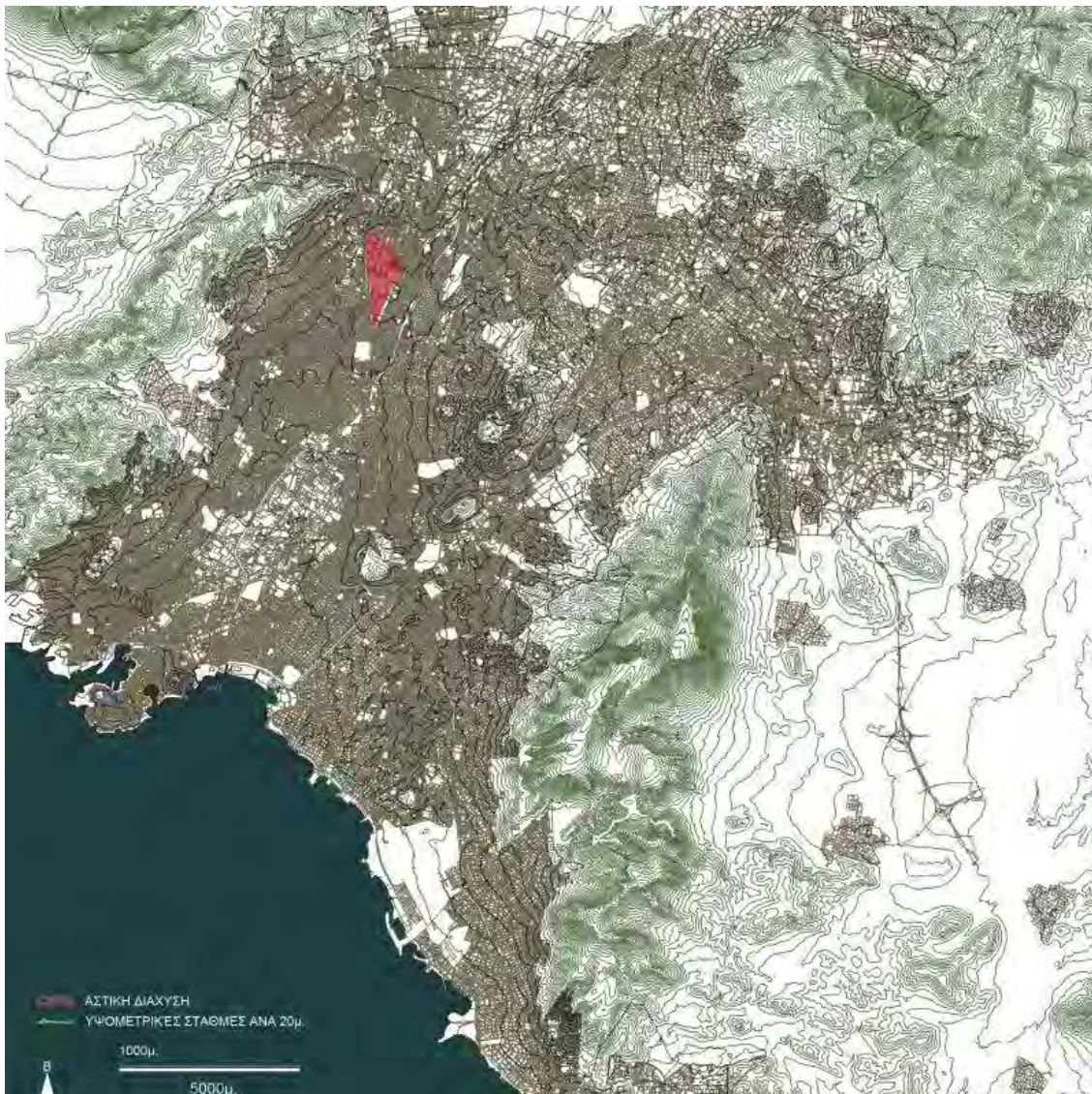
Figure 1. Tracing the Natural Limits of the Metropolitan Area of Athens.

A historic review concerning the use of Tritsis Park zone during the last two centuries

The above mentioned advantages of the bas-relief may be one possible reason for its past use as a royal estate. Amalia, spouse of the first king of the Modern Greek State (Otto of Greece), decided, around the middle of the 19th century to obtain the country area which comprises the contemporary park site and a larger surrounding territory. We have to remind of course that by that time the contemporary park zone was a part of a larger rural territory situated outside of the Greek capital, to the west side of the city.

The aim of the queen was to build there a manor house, for her hunting activities, and to create at the same time a royal farm, "une ferme royale", as it is clearly written in French, on the old master plan of the queen's estate. On

the same map the word "Eftalofos" is also written; a name meaning "place of seven hills", also used to identify Rome, as well as the "new Rome", the byzantine capital of Constantinople.
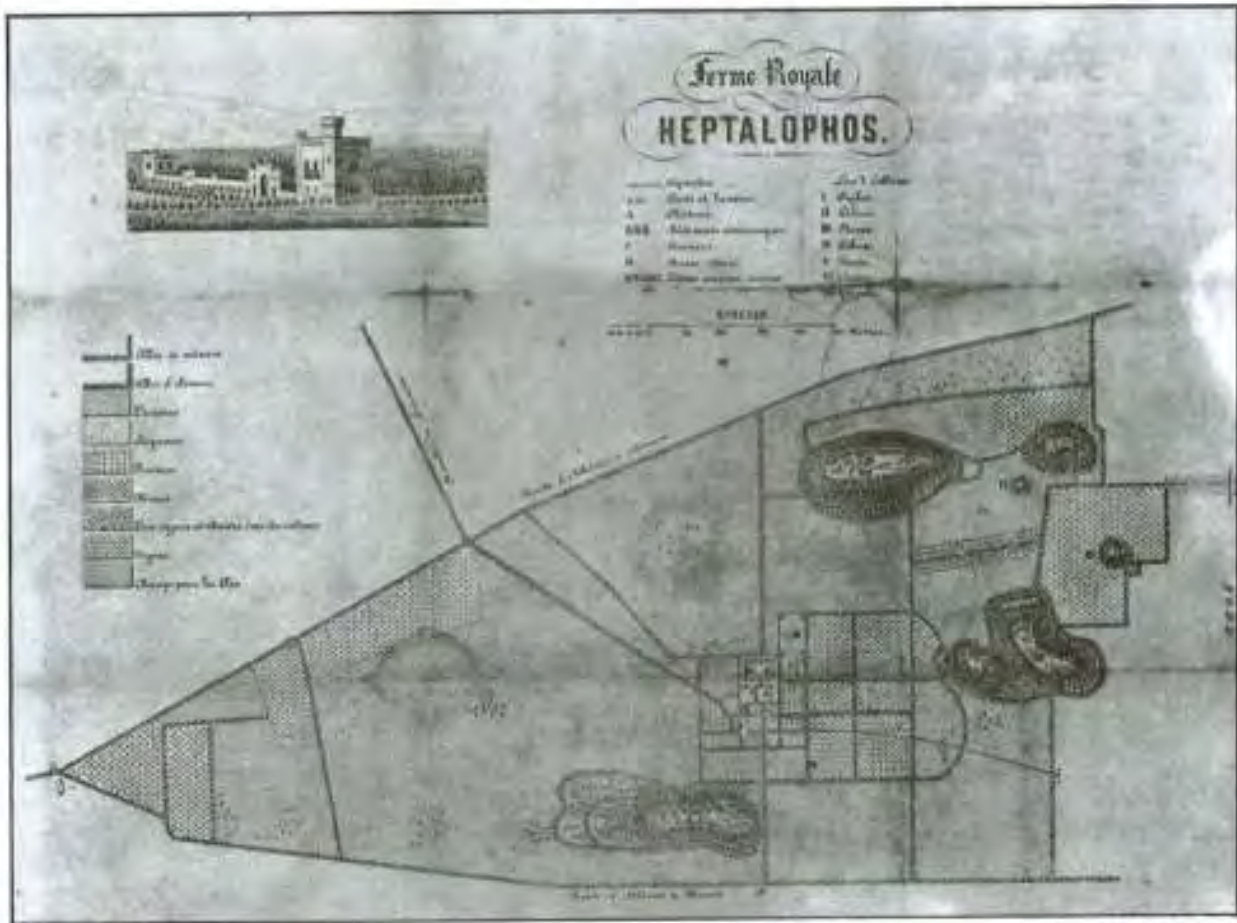
Figure 2. The map of the royal estate.

Amalia was undoubtly an enthusiast of the garden and landscape art. Eftalofos was her country farm adjacent to an area rich in hunting prey, on the outskirts of the town. In the very center of the Athenian capital, next to her royal palace, which is now the contemporary Parliament of Greece, she created what is now called the National Garden of Athens, also known as Amalia's garden. Both landscapes, Eftalofos and the palace garden, may be described as places dedicated to royal recreation. However it would be wiser to examine much more profound purposes, connected to their construction. For the queen of Greece who was born the Duchess of Oldenburg, Germany, garden and landscape architecture seemed to be an indispensable central part of the overall European civilization. In comparison, landscape interest was rather unknown to the newly born, still "oriental" Greek State, which was struggling to gain the place it deserved in the group of the politically and culturally developed western countries. Therefore, in the middle of the 19th century, landscape constructions presented a cultural statement for the European orientation of Greece, side by side to the neoclassical buildings

built during the reign of Amalia and her husband king Otto, a former royal prince of Bavaria.

It is in relation to the above general cultural meaning that Eftalofos acquired its recreational use and that it developed, in addition to this first purpose, a second important function. A part of the surface of the estate was devoted to agricultural activities organized by the queen in order to exemplify, for the sake of her uneducated subjects, new methods for the cultivation of the land that had to be introduced from the western developed world to the backward agrarian economy of Greece.

After the expulsion of Otto and Amalia from the throne of Greece, in 1862, the territory of Eftalofos remained, in the majority, a public property commonly known to contemporary Athenians as "Queen's Tower", harking back to the days that the existing old mention was used as a royal hunting lodge. It was only recently however, in the 1980's, that the zone of the former royal estate has been transformed to an organized public park, by Antonis Tritsis, a Greek urban planner and politician who served as a Minister of Urban Planning and Environment. In this way an important zone of a thousand acres has been preserved in direct contact with a densely populated area and has been offered as organized parkland to the inhabitants of the metropolitan territory of the Greek capital.

It is not by mere accident that the park zone has transformed little by little to a precious environmental zone; the most important avifauna biotope in the whole Attica region. The geomorphology of the place creates a natural basin, where water coming down from the nearby mountain is collected, as we have already mentioned, fertilizing the soil and supplying the artificial lakes of the park.

A first conclusion, at the end of this brief historical review, concerns the importance of the contemporary Tritsis Park zone. Having preserved the natural quality of an unbuilt green and waterscape zone amidst the densely built metropolitan areas, the park seems to be a valuable piece of the urban landscape, for reasons of recreation and environmental importance.

A second conclusion however, at the end of this first historical review, may focus on the cultural value of landscape in general. The term "landscape" doesn't refers to the natural condition of a place only. It corresponds, according to the European Landscape Convention, to any area "as perceived by people, whose character is the result of the action and interaction of natural and/or human factors". It seems therefore more appropriate while studying landscape, to treat natural as cultural entities at the same time. That appears to be even more important for geographical territories around Athens, related to dense historical references.

We have founded this small dissertation on the grounds of a central idea that, in the future, Tritsis Park has to constitute the central part, or at least an important crucial part, of a major net of green places revitalizing the metropolitan area of Athens. However, we need to enrich this first founding

idea by the addition of a final net of cultural and historic connotations, superimposed on the surface of the natural entities of the places.

Creating "green necklaces" in metropolitan areas

Creating isolated focuses, "islands" of green urban places, is of course an ambition of great landscape and environmental importance. It presents however, if treated as a general strategy, a number of disadvantages.

The first disadvantage concerns the infrequency of the urban voids in a metropolitan area as densely built as Athens. Unbuilt places, convenient for green development are rare and those which exist may be described, viewed in such a general context, as disarticulated sites that cannot be organized into a general response to the problem. However, if it was possible to install unifying "lines" between the random dispersion of these isolated green fragments, a composed answer could be achieved. The total environmentally useful surface would be augmented through the addition of linear green connections. Even smaller spots, seemingly unimportant, could claim an urban significance and could be added to the total green network.

The second disadvantage of the isolated environmental interventions, in an urban context, results from the fragmented perception of the whole scheme of those isolated places of intervention. The inhabitants do not only enjoy a smaller total result, but even more it is difficult for them to perceive it as a total composed entity. The creation of a total system, composed of a number of places of bigger or smaller surfaces connected through linear green zones, such as planted streets or avenues, could offer a more intelligible, coherent "green" system for urban citizens.

Nowadays green networks, such as proposed above, seem to be generally accepted internationally. Isolated green spots seem important to be connected through "green corridors" and terms such as "green infrastructure", much in use recently, declare the volition for the formation of organized systems of green nodes and green connections that have to support the urban life in general.

However, this is not the first time "green" orientation of urban societies and orientation of urban design toward environmental or landscape qualities have occurred in modern history. The vision of a "green" substratum of urban life was rather common in modern western societies for the time span between the middle of the 19th and the beginning of the 20th century. A peak instant of this landscape and environmental reform is related for sure to "garden cities" but, even before this reforming effort an extended "park movement" (an intense movement for the creation of urban parks) flourished in the developed countries of the Western world[1]. European garden and landscape architects, such as the Englishmen John Claudious Loudon or Joseph Paxton, Frenchmen as Jean-Charles Adolphe Alphand as well as the Americans, working at the other side of Atlantic Ocean, Andrew Jackson Downing and Frederick Law Olmsted, had enriched the leading western cities

with green open spaces. Those parks have been considered, at that time, both as recreational and sanitary urban necessity.[2] It was in the United States that the idea of an street that was a park in the same time, of a "parkway", of an avenue lined at both sides with parallel zones of trees, was introduced by Olmsted. Olmsted also designed, in addition to Central Park, the "emerald necklace" of Boston, United States, in 1984.[3] This great American landscape architect used the metaphor of the necklace to describe a group of interconnected green, "emerald" places, that not only offered an opportunity for recreation in wooded areas, but were also ecologically important urban wilds that improved the quality of the urban environment and provided nesting places for migratory birds, as Tritsis Park does in the Athenian basin.

1 See Chadwick, Georges Fletcher: *The Park and the Town: Public Landscape in the 19th and 20th Centuries*. London: The Architectural Press,1966.
2 See Beveridge, Charles V. και Rocheleau Paul: *Frederick Law Olmsted. Designing the American Landscape*. Νέα Υόρκη: Universe Publ.,1998.
3 Ibid.
4 For the figurative, intratextual use of the term "palimpsest" see Genette, Gérard: *Palimpsestes. La littérature au second degré.* Paris: Editions du Seuil, 1982. For the figurative approach of the city as a text see Gandelsonas, Mario: *Urban Text*. Cambridge: The MIT Press, 1991.
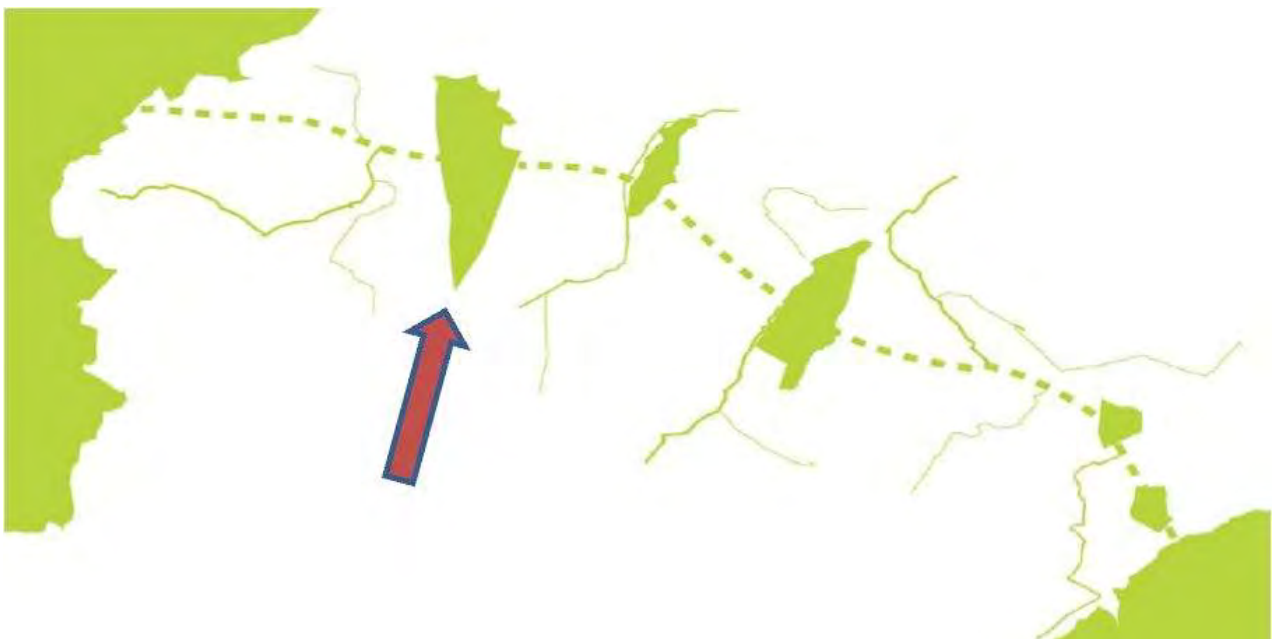
Figure 3. Tritsis Park as a part of the possible "emerald" necklace in the Athenian basin. Students' project proposal - International workshop "Urban Futures", Athens, November 2012

Tritsis Park as an important node for a future environmental and landscape network in the metropolitan area of Athens

If we try to imagine an analogous "emerald" network for the metropolitan territory of Athens, we should first note that it could be not only a system of interconnected nodes, but also a "necklace" of precious historic areas. What is rather common for inhabitants of the Mediterranean countries is the "multileveled" historical significance of their urban settlements. A great number of them, usually the more important cities, present an impressive "thickness" of historic existence, sometimes described through the textual metaphor of a palimpsest.4 It would be extremely interesting to unveil the neglected intratextual relations of the different historic layers of such urban settlements; Athens probably being among them one of the richer in terms of cultural heritage.

A view on the metropolitan map of Athens, already used as an introductory proposition for the present essay, offers the schematical figure of natural reserves extended at the mountain territories to the west and east side of the Athenian basin.

In the middle of those reserves, a continuous flux of building territories comes down, in the central part of the basin, heading to the southern limit of the sea, to the bay of Phaleron. In this way the Athenian metropolis seems to be enclosed by nature, by mountainous landscape or by the "waterscape" of the sea. However, even the central built area of the city, though dense in urban constructions, contains smaller or larger "stains" of unbuilt urban voids. We may insist on the environmental validity of those voids but, additionally, we should not overlook the cultural significance of the most important among them. The hill of Acropolis, the archeological site of Keramicos, and the archeological site of Thission may be described as exceptional historic sites, which are important, not only for Greek history but for Western history as well. They may be undoubtedly classified among the most important historic places of the international cultural heritage, consisting parts of the unique Athenian historic landscape.

It is because of this dual importance, environmental and historic as well, of the archeological sites in the central area of Athens, that the Greek company EAXA has tried to organize unification programs for them. EAXA, standing for Unification of the Archeological Sites of Athens S.A., is entirely owned by the Greek Ministry of Culture and the Greek Ministry of Environment, Energy and Climate Change, and has already carried out a number of successful urban projects. It would be immensely advantageous to augment this unification effort with all the possible useful urban places of both historic and environmental importance or of environmental value only, and even more to think of a final result expanded to the whole metropolitan area of the Athenian basin.

It is according to this final visionary proposal that the position and the environmental quality of the Tritsis Park seem central. Calculating the distances between natural reserves at the limits of the city complex, urban voids in the built areas, and important parks that could be related to an extended network, we may see that Tritsis Park is situated in the immediate vicinity of Pikilon Oros, Mountain Pikilon to the west. It is also situated at a distance of only two kilometers away from the important urban park of New Philadelphia, and what is more, its distance from the important huge area of Eleonas that could be environmentally reorganized, is only four kilometers. According to these calculations, the distance between Tritsis Park and Eleonas is only as long as the total length of the Tritsis Park itself and the distance between Tritsis Park and Philadelphia Park is only the half of the Tritsis Park length.

We could imagine that urban movements of pedestrians or bicycle riders are rather easy if they decide to wander around, between Pikilon Oros, Tritsis Park, Philadelphia Park and Eleonas territory (if this last one was environmentally upgraded). However, the immediate reality appears rather more obscure. What are absent nowadays are the linear connections between those primer destinations and a system of intermediate minor places of nodal function with appropriate environmental and landscape quality; appropriate that could attract normal pedestrian movement or city "flâneurs".

Figure 4. The Network of the Environmentally Useful Urban Elements.
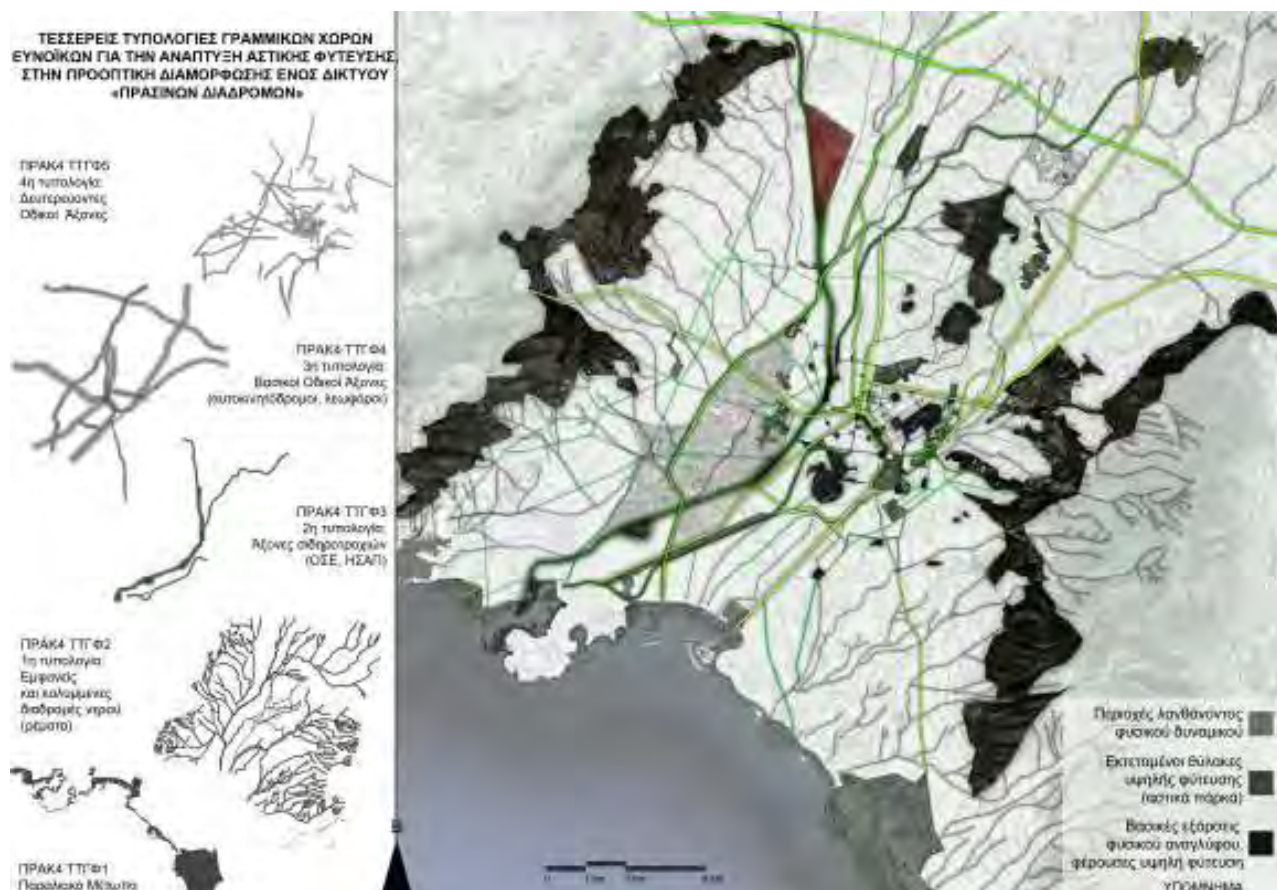
The first as well as the forth image have been originally used in the research program "Changing Characters and Policies in the Center of Athens and Piraeus" - Minister of Environment, Energy and Climate Change in collaboration with National technical university of Athens/2011 -Drawn by architect S. Mouzakitis.

Research Scientific Coordinator: Professor P. Tournikiots. Ass. Professor K. Moraitis participated as a Researcher.

Figure 5. Transforming Urban Streams into Active Urban Biotopes.
Diploma project in the School of Architecture, NTUA.
Students: A. Androulakakis and T.Tzanavara. Rsponsible
Professors: M. Markou, K. Moraitis – November 2011.

This seems to be the purpose of a unification pattern to invent and to create new green paths and intermediate green places. For this final purpose the existing links of streets that could be planted at their sidewalks or that could augment their linear plantation, would be extremely useful. An even more challenging environment and landscape project concerns the intervention on the side zones of the open railway lines that cross the urban area and offer linear zones of continuous growth in the built city areas. Networks of urban streets and networks of open railroad lines may be transformed to networks of urban biotopes, creating not only pleasant walking paths but also zones for the development of a new urban ecosystem. To this complex result a third linear system of great environmental and landscape importance may be added. This could be the system of the existing streams still running through the urban territory offering valuable bio-diversity zones.

Reaching a Final Conclusion

As we have already stated, at the beginning of this brief presentation, an inspection of the map, presenting the metropolitan territory of Athens, will confirm that the non-built area of 10

Antonis Tritsis Park occupies a central position amongst other important non-built areas of the city formation.

The above introductory remark seems to retain its validity, even if applied to the final image of our exposition. According to this final image, various urban landscape parts, as existing parks, unbuilt urban voids, continuous linear zones of railway routes, existing streams, avenues and streets, may be interconnected creating an expanded network of environmentally important relations, a significant constellation of urban loci that have to be revitalized. Antonis Tritsis Park, even as part of such a complex system of green nodes and green corridors, still preserves its primal environmental and landscape importance.

Figure 6. Antonis Tritsis Park a site of great environmental and landscape importance.

Evaluation of the urban open spaces in Istabul

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ABSTRACT. Urban population increase that have been seen as critical to the future of the cities, it is clear that urban open spaces are one of the important aspects of the urban life. In this point of view, urban open spaces can provide many important opportunities. Thus the study focuses on the relevance of the urban open spaces to people's everyday life. Public nature of urban open spaces presents benefits and opportunities on different kind of activities and sociability. Creating good urban spaces will improve many attributes in reference to the city, people and the urban life itself. Hence, in terms of urban design it is fundamental that the issue why some urban spaces gain success while others fail has to be discussed in detail. Accordingly, in this study, based on the typology of urban open spaces Istanbul's urban open spaces will be presented. The general differences from the developed countries and unique, characteristic values have been indicated. In detail, Taksim Square has been analysed historically as a planned and designed urban open space and its current affordances have been questioned.

KEYWORDS. Urban Life, Theory of Affordances, Urban Open Spaces, Incidental Public Places, Sociability

1. Introduction

There has been a growing concern about the quality of urban open spaces that affects the development and the sustainability of the social and spatial environment. Parallel to this concern there have been many research and study that discuss/highlight the meaning and organisation providing useful information for creating more successful urban open spaces. These researches have taken an important role producing theoretical and physical information on the organisation of the use urban open spaces.

In addition to this, this paper briefly introduces the role of urban open spaces on social and spatial environment, indicating that these spaces are formed both as planned or incidentally. Then discusses the reason why these spaces are also formed incidentally relating the issue the fundamental principles of "The Theory of Affordances", and finally proposes a typology of the urban open spaces of Istanbul which is adapted from the study "A Typology of

Contemporary Urban Open Spaces" (Carr et al, 1992) evaluating these spaces by four defined criteria.

2. Urban open spaces, urban life and theory of affordances

There are several definitions of urban open space. However, the primary definition on open space provided by "The Open Spaces Act 1906, London" in respect The Metropolitan Open Space Act of London, in 1877 as "The expression "open space" means any land, whether enclosed or not, on which there are no buildings or of which not more than one-twentieth part is covered with buildings, and the whole or the remainder of which is laid out as a garden or is used for purposes of recreation, or lies waste and unoccupied." (http://www.legislation.gov.uk/ukpga/Edw7/6/25/section/20)

Urban open spaces are defined also as publicly accessible open places designed and built for human activity and enjoyment. (Francis, 1987:76) These open spaces may include parks, neighbourhood playgrounds, community gardens, downtown plazas, streets and malls.

In 1981, Lynch argued in "Good City Form" that open space is open when it is accessible. According to Lynch, a fenced waterfront or a mall locked at night is not open space. Following this definition, the quality of being open and closed may be to distinguish between accessible and inaccessible open space. (Lynch, 1981:220)

Open space is also an essential part of the urban heritage, a strong element in the architectural and aesthetic form of a city, plays an important educational role, is ecologically significant, is important for social interaction and in fostering community development and is supportive of economic objectives and activities, In particular, it helps reduce the inherent tension and conflict in deprived parts of urban areas of Europe; it has an important role in providing for the recreational and leisure needs of a community and has an economic value in that of environmental enhancement. (Council of Europe, 1986:2)

Urban open space is also the part of urban life. The streets and parks of a city support communal life and relaxation and there is a need for that open spaces can help people to satisfy. (Carr, 1992:20) In all communal life there is dynamic balance between public and private activities. Although the public-private balance is unique to each culture it will shift under the influence of cultural exchange technology, changing political and economic systems. (Carr, 1992:33)

Urban open space generally contain public amenities such as walkways, benches and water, physical and visual support elements and some are under public ownership and management whereas others are privately owned but open to the public. (Carr, 1992:50)

Meeting other people has been the most important function and attraction of the city, and urban open spaces have had a central role as meeting place throughout the history. Today, urban open spaces draw the framework for people's meetings with society and each other. According to Gehl, in a

society where concepts such as democracy, diversity and feelings of personal safety are considered important 3 dimensions, the extended use of urban open spaces must be seen as a very valuable and for the assets. (Gehl, 2007; Thampson & Travlou, 2007:3)

Urban open spaces are formed as planned spaces or incidentally. Planned spaces have different origins, although the functions they serve may be similar to unplanned. Planned spaces frequently emerge from the offices of city planners, architects and landscape architects. (Carr, 1992:50-51)

Urban life in urban open spaces is desirable for people and good for societies. (Carr, 1992:43) Urban open spaces afford casual encounters in the course of daily life that can bind people together and give their lives meaning and power, offers relief from the stresses of work, providing opportunities for relaxation, entertainment, and social contact. (Carr and Lynch, 1968; Carr, 1992:45)

The action of creating the space can be defined as the man's shaping the environment according to their needs. Hence, the reason why urban open spaces are also formed as incidentally is because the existing designed spaces are not able to answer or satisfy all the needs of people undoubtedly. Consequently, another issue which has to be handled is the possibilities that the space offers for action to its users according to their needs. This issue is important especially in terms of public spaces which are designed or planned by somebody who is not the real or permanent user of this space unlike the private spaces. Yet, the needs and expectations of the current or potential user profile and their changing demands have to be discussed and questioned. Otherwise, the space has to be reorganised repeatedly and this would cause waste of time and money and above all non-functionality during each organising process.

In this perspective, this study also discusses the possibilities that the space offers. Emphasizing the importance of the possibilities, The Theory of Affordance which originates from the field of perceptual psychology finds increasing popularity in a variety of disciplines including the area of urban and architectural design. In terms of the definition of Gibson, affordance of the space is a very important and essential principle of urban design theory as a very substantial concept.

The Theory of Affordance was coined by Gibson first in his book "The Senses Considered as Perceptual Systems" and also later in "The Ecological Approach to Visual Perception". Deriving from the verb "afford" which means "to provide or supply an opportunity or facility" he made this term up and defined the noun affordance as; "an action possibility available in the environment to an individual, independent of the individual's ability to perceive this possibility". (McGrenere and Ho, 2000:1)

According to Gibson's Theory of Affordances, the world is perceived not only in terms of object shapes and spatial relationships but also in terms of object possibilities for action. Affordances, or clues in the environment that indicate

possibilities for action, are perceived in a direct, immediate way with no sensory processing. Examples include: buttons for pushing, knobs for turning, handles for pulling, levers for sliding, etc. (www.learningtheories.com; Gibson, 1979).

The built world provides a rich array of behavioural and experiential possibilities – possibilities for activity systems and for group identity (Lang, 1987: 84) and the built world can best be considered to be the afforder of human activities, shelter and comfort, meanings and aesthetic experiences. The affordances have to be perceived with reference to individual species and their individual members in terms of their competencies, their capabilities, physical and emotional, their motivations or needs and what they perceive to be the consequences of any action. (Lang and Moleski, 2010: 50) On the other hand, if there is no spatial affordance then there will not be any possibility for any action to occur.

An important fact about affordances of the environment is that they are in a sense of objective, real and physical, unlike values and meanings, which are often supposed to be subjective, phenomenal and mental. An affordance is neither an objective property nor a subjective property; or it is both. An affordance cuts across the dichotomy of subjective-objective and helps people to understand its inadequacy. It is equally a fact of the environment and a fact of behaviour. It is both physical and psychical, yet neither. An affordance points both ways, to the environment and the observer. (Gibson, 1979:129)

The action itself must be perceived as possible before one act, which is, the perception of an affordance motivates the doing of an action. Although the initial interest was in understanding what motivates human behaviour, this theory has the potential to be approached in terms of urban design regarding the mutual relation between space and human.

This concept therefore has the potential to be extended to comprise even emotional, social, and cultural opportunities that the individual perceives in the environment. As it comprises features of both the environment and of the individual, it is located at the interface between the setting and the person. (Kytta, 2004:181; Gibson, 1979)

In this context, the concept of affordances becomes a useful reference to explore the multi-place system of activities and to examine the relations between evaluations and actions. When addressing specific environmental elements such as existence and usage of urban open spaces, streets, routes and presence of other people and their effects on the quality of life, a useful question to ask is how these elements support people's daily activities and personal projects. (Bonaiuto and Alves, 2012: 224; Little, 1983) Everyday life and its physical, social and temporal affordances become necessary issues to address. Affordances are possibilities or preconditions for action

expressed as properties of objects and layouts that are available to the perceiver's perceptual system. (Bonaiuto and Alves, 2012: 224; Gibson, 1979) Affordances as bound on physical/spatial properties, time, people's goals and capabilities and inter-group perceptions are a means to frame "quality of life" in reference to everyday patterns of activities. (Bonaiuto and Alves, 2012: 224) In brief, space has a guiding quality on human behaviour and this quality has been defined as the affordances of space.

In this sense, spatial design appears as a substantial tool and opportunity in terms of the interaction and communication of people with each other and also between people and space. In particular, affordances of public spaces have a greater importance on the spatial organisation of these spaces as not being designed by the user himself. Therefore, the prerequisite for evaluating space is the presence of affordances that differs in direction of the changing needs and demands of people. Hence, in the following section, four main criteria are suggested to overlay these changing demands with the action possibilities (affordances) and to evaluate the space in terms of these criteria.

3. Evaluation of urban open spaces in Istanbul

Urban open spaces can be classified according to different criteria in detail. Carr et al have provided "A Typology of Contemporary Urban Open Spaces". (Carr, 1992:79) Based on this typology of Istanbul's urban open spaces have been classified. (see Table 1) In this classification it has been seen that there are two main points; first of all, due to the social and the spatial organisation differentiations there is no example for some of the types and the subtypes which had been defined in the Typology of Contemporary Urban Open Spaces that defined by Carr et al. Besides, the characteristics of the examples of Istanbul also differ according to the same reasons.

As the second step of this evaluation of the typology urban open spaces in Istanbul types and subtypes were evaluated in terms of ecological sustainability, economic and social liveability and accessibility by walk or public transportation. Ecological sustainability is related to the protection of ecological processes and natural systems, economic liveability defines the indicators of the economic activity level and the amount of consumers also the affordability capacity, social liveability explains the maintenance of cultural, historical, economic, spatial and social wellbeing of human and the society, accessibility refers to the availability of service and/or environment, in terms of transportation the ease of reaching destinations by public transportation or walking.

Based on the evaluation, parks, recreational areas, waterfronts and urban wilderness support ecological and social sustainability while squares, streets, market places, and atriums support economic and social liveability. Playgrounds also support social sustainability. Incidental or spontaneously developed urban open spaces support economic and social liveability.

(Narkar, 2006:38-39) Parks, waterfronts and forest area have importance for ecological sustainability.

Social and economic liveability are heavily dependent upon accessibility by walking and public transportation. Around 60% of people who live Istanbul use public transportation and most of the people use neighbourhood parks, playgrounds and market places by walk. (Türkoglu, et all, 2011).

4. Conclusion

The quality of spaces affects the usage of the urban open spaces. Either planned or incidental the role of urban open spaces on social and spatial environment of the cities is important and desirable for its users. The concept of affordances becomes a useful reference to explore the multi-place system of activities and to examine the relations between evaluations and actions. Affordances of public spaces have a greater importance on the spatial organisation of these spaces. Evaluating space belongs to the presence of affordances that differs in direction of the changing needs and demands of people. In this paper, based on four basic criteria which are related to quality of life different urban open spaces were evaluated to be discussed in detail through given examples. This study opens questions on the importance of these spaces to the city; considering the differences of the typologies we question whether these spaces are a result of local culture or the necessity of urban living conditions or not. Also this question has to be handled with the quality of the contribution of these spaces to the cultural production of the city in terms of urban public life. Besides, this study emphasize the question of if the study of incidental spaces can be an important exercise for planners, urban designers and architects in developing an alternative approach to planning and design of urban open spaces.

Types	Characteristics	Examples	Ecologically Sustainable	Accesible by walk and public trans.	Economically Livable	Socially Livable
Urban Parks						
City Parks	Open space of city-wide importance with international potential, located in the center of fcity, large, often historic but newly organised open spaces	Taksim Park				
Neighborhood	Open space developed in residential environments, often owned and maintained by a local government or new private residential development; may include playgrounds, sport facilities, etc.	Abbasaga Park				
Squares and Plazas						
City Squares	Square or plaza; often part of historic development of city center and formally planned or exist as a meeting places of streets; large, often important transportation node, open space of city-wide importance with international potential, owned and managed by central or local government	Taksim Square				
Neighborhood	Squares developed generally in residential environments, often in spatial relation with public services like schools, mosques etc., historic or a part of new private residential development, often owned and maintained by a local government.	Moda Square				
Markets						
Farmer's Markets	Open space or streets used for Farmer's Markets; often temporary, occur only generally weekly	Neighborhood Markets				
Streets						
Sidewalks	Most commonly along sidewalks and paths with trees, shops, stores, pubs and cafes	Cumhuriyet Avenue				
Pedestrianized Street	Street closed to auto traffic; planned streets or avenues of city-wide importance with international use, located in the center of city, historic with fashion garment stores, boutiques, music&book stores, art galleries, cinemas, theaters, cafes, pubs etc.	Istiklal Avenue				
Playgrounds						
Playgrounds	Play area located in neighborhood; frequently includes traditional play equipment such as slides and swings;	Neighborhood				
Urban Wilderness						
Urban Wilderness	Undeveloped or wild natural areas in or near cities housing many plant and animal speices. Visited for recreational	Belgrad Forest				
Waterfronts						
Waterfronts	Open space along waterways in cities; increased public access to waterfront areas; open space of city-wide	Bosphorus Shores				
Atriums/Indoor Markets						
Atrium/Indoor	Private space developed as indoor atrium space; lockable plaza or pedestrian street; hted as part of open space	Milli Reasurans Building				
Incidental						
Incidental	Developed naturally, in ad hoc fashion, over a period of time due to their repeated usage for a specific function; characterized by informality, spontaneity and an alternative nature; formed and shaped by the	Insidental Spaces				

Table 1. Evaluation of urban open spaces in Istanbul

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Theme 2:
Designing Public Open Spaces with Public Participation

The 'Community Development Training Program' in Latvia

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ABSTRACT. In spring 2012 a piloting process with the ASPIS involved researcher Friedrich Kuhlmann from Tartu, Estonia took place in Riga and involved participants of the project "Radi Rigu!" (Create Riga!), focused on public space as a lever for social revival. Due to our experiences based on the neighborhood involvement during the same program in Riga, the project authors of the 'Community Development Training Program' consider to use the elaborated tools of the ASPIS program. The methods should be implement within the terms of the training program in 2013.

The 'Community Development Training Program' (CDP) concentrates on the impact of shrinking population figures, the decline of local economies and a lack of infrastructural development on the social cohesion in rural Latvian and Baltic States municipalities. The designed training program aims to train local capacities to support their local communities and its economy on behalf of methods of community development work, thus promoting the idea of an alternative and independent approach of municipal development.

The long-term experiences in Western and Northern countries, with libraries and cultural centers serving as centers of local civic engagement offer a crucial knowledge for the Baltic States. With respect to the ongoing financial crisis in the Baltic States, efforts have to be taken in oder to strengthen a synergetic strategy of community, cultural and education development in the neighborhoods and communities of the respective areas. Library or cultural-center located community work offers a straight intervention instrument in order to promote the local development by its inhabitants. A sustainable network of community centered and located institutions, serving as 'Cultural-Social Centers', supports the idea of social integration and cohesion. The venues are neighborhood centers by definition and have the ability to carry out innovative, open-minded and modern cultural work, open for everyone, creating a space for social inclusion and intercultural dialogue, hence developing communities at its very core and supporting a direct measurable improvement.

The research and training project development is carried out by the the Urban Institute, Riga and its cofounding partner, the University of Latvia, Faculty of Geography and Earth Sciences. The project will be implemented in 2013 in collaboration the Ministry for Regional Development of the Republic of Latvia.

Urban space is as relevant for big metropolitan areas as for shrinking, remote communities, thus the by the ASPIS project offered tools are evidently the right instruments in order to raise awareness for urban and community life quality and the sustainability of public space especially among younger inhabitants.

The future community developers will receive an opportunity to start an attractive, understandable, easy to access oriented participation supportive tool concerning the design of their environment.

As the training program involves many layers of activity, independent community development, decision making processes as well as cooperation with experts and planners, the Games-based Learning (GBL) methodology could foster the acceptance of the envisaged inhabitant involvement radically.

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The Community Development Training Program in Latvia
The 'Community Development Training Program' (CDP) concentrates on the impact of shrinking population figures, the decline of local economies and a lack of infrastructural development on the social cohesion in rural Latvian and Baltic States municipalities. The designed training program aims to train local capacities to support their local communities and its economy on behalf of

methods of community development work, thus promoting the idea of an alternative and independent approach of municipal development.

Main aims of the project
▪ Strengthening communities per se!
▪ Fostering change-management
▪ Training community developers and developing a strong network of professionals
▪ Empowering existing local communities - setting a concept of best practice
▪ Popularizing the idea of community capacity building and the need for action

The research and training project development is carried out by the Urban Institute, Riga and the University of Latvia, Faculty of Geography and Earth Sciences. The project will be implemented in 2013 in collaboration with the Ministry for Regional Development and Environmental Protection of the Republic of Latvia.

Why Community Work?
Community Work is a powerful tool for social inclusion, promoting an intercultural dialogue between different target groups of society, fostering our community values, such as communication, tolerance, social dialogue, an active work combating isolation, exclusion and marginalization of individuals/society groups

Why Community Development?
Community Development is an urgently needed instrument, raising awareness by supporting individual self-conscious, responsibility and knowledge regarding its unique individual needs, interests and expertise and how to cooperate and collaborate with society and its systems

Our communities
Our communities are at risk, especially small urban structures and rural or remote areas in Eastern Europe and certainly other countries affected by the world economical crises are currently facing enormous and even threatening problems.

Latvia and several other countries are in need to promote the interests of their communities; a race of ten years of economical development and the deep impact of the financial- and state-crisis in the course of events of the last two years has left out to find answers on the most important needs and opened the question, whether direct communicative and participative methods are needed more urgent than ever before.

For years, economical growth has been fostered but the aspect of a general community development has been set at disposal; now the respective communities are eagerly searching for alternatives, in need to build a stable social structure, a platform for basic wealth and a possible future development within times of heavy budget cuts or bankruptcy.

Due to the fact, that the younger and working age groups of societies have either been leaving the areas or are unemployed as well as rural declining birth rates in most of the regions in the Baltic States, social structures, communities and complete urban settlements are at the edge of their existence. So far achieved social inclusion is endangered and communities are strongly incoherent.

The lack of serious adopted social integration programs and improved intercultural communication, thus the lack of Community Work practice – both as, virtually (programs, approaches, tools) and physically (practicing creative and modern cultural, educative and social work, thus providing participation opportunities for all groups of society) supports social inequality, cultural isolation and marginalization in our neighborhoods and communities.

Nevertheless the civic engagement and society activity had been growing silently and guaranteed a minimum of community development. These light and sensitive plants are now as well as the public and state services in great danger and therefore are in the need of immediate support.

Libraries and cultural institutions
Libraries and cultural houses are social networking centers by definition and have the ability to carry out innovative, open-minded and modern cultural work, open for everyone, thus creating a space for social inclusion and intercultural dialogue, hence developing communities at its very core and supporting a direct measurable improvement.

- Anticipated as independent institutions
- Existing in nearly all communities
- Meeting places for youth and elderly = inter-generative and inter-cultural
- Inter-connected with existing formal & informal institution
- Space for local movements
- Networking centers
- Information sources
  - Linked with education
  - "Citizen-near" & "easy access"
  - "barrier-free" & "neutral character"

Based on the long-term experiences in the Northern countries, where libraries are crucial centers of local civic engagement as well as based on the results of three decades of modern community development in the Western European countries and with respect to the ongoing financial- and state-crisis in the Northeastern European states, the Urban Institute in Riga suggested a synergetic strategy of community-, library, cultural-, adult- & political education development:

Library or cultural houses located Community Work as an effective and efficient tool for a direct and straight intervention in order to promote the local, especially rural and remote community development!

Community Work

Based on the background of experiences in addressing communities gained in many European countries, an activating cultural-social program specifically aimed to concentrate on the social inclusion of marginalized target groups should be immediately implemented. International partners have been successfully working with Community Work methods for the last four decades.

As most East European countries have no institutionalized Community Work centers so far, both as, independent or public institutions, professionals, local social actors and most of all the inhabitants are lacking places and locations where local communities and certain cultural and social groups can practice their cultural creativity and spontaneity, thus being involved, welcomed and appreciated in their own community.

Although Community Work is structurally not yet developed, many streams in society are in the meanwhile eager to change relevant questions of community development and to disseminate an independent understanding of Community and Social Work. The project aims towards transforming existing trends and ideas into an elaborated conceptual strategy of Community Work for Latvia.

The Strength of Codesign: Citizens as Community Builders

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ABSTRACT. Transdisciplinary research, integrating practice and academia, and including citizens as knowledge producers in urban development processes can lead to successful community empowerment in urban design. In such approaches, citizens are considered *community builders* and therefore are invited by the authorities to build knowledge by codesigning artifacts in urban space. This paper will present experiences from a Swedish project in the context of stigmatized outskirts of metropolitan areas, where inhabitants have been involved in codesigning a stage in a local park, to be built during the winter 2012/13. The project is carried out as part of a municipal project called 'Development Gothenburg Northeast' funded by the European Union and supported by a research project called 'INTERPLACE—The interplay between citizen initiatives and invited participation in urban planning' funded by Formas.

Background and context

This paper discusses the early outcomes of a project called 'INTERPLACE— The interplay between citizen initiatives and invited participation in urban planning' (mellanplats.wordpress.com), a transdisciplinary interaction research project with one of its roots in the architecture and planning realm to which I belong. We have focused on citizen participation and empowerment issues in a specific context: the stigmatized outskirts of European metropolitan areas. One of our case study areas is Hammarkullen, situated in the northern part of Gothenburg, Sweden, in an area called Angered. Here, almost half of the 48,000 inhabitants were born abroad, as compared with the corresponding figure for Gothenburg of one-fifth. The population is also very young compared with the rest of the city. Among Hammarkullen's approximately 8,000 inhabitants, nearly 40% are under 25 years of age.

The architecture is characterized by grey and white high-rise buildings in the centre, surrounded by semidetached houses and villas. Public transport to the inner city is provided by trams and takes about 15 minutes. Hammarkullen is often labelled – by the mass media, scholars, municipal employees and the public – 'peripheral' and 'different', and attributed a

'territorial stigma' (Wacquant 2003). Today, Sweden is experiencing a severe education problem related to housing segregation: a considerably larger proportion of pupils in lower secondary school in stigmatized suburban centres in Sweden (sometimes as high as 70%) do not pass the subjects of maths, English or Swedish. This means they do not qualify for admission to upper secondary school. Moreover, the socioeconomic and educational gaps in Swedish society are increasing alarmingly. Related to these problems, rapid changes are taking place in society that are leading to a weakened public sector, which finds it difficult to tackle the complex challenges posed by the current organizational structures and strained financial situation.

The present article does not focus on stigmatized suburbs as a problem, however, but instead on trying to understand the possibilities of increasing citizen participation in urban development processes. The overall reason for this interest is that citizens' rights have not been taken sufficient advantage of in governance processes related to urban planning and city management (Stewart and Taylor 1995). This is a great mistake, as it has been stressed by planners and designers that architecture does not only have the potential to be a vehicle of empowerment through community participation (Marschall 1998) but also that inhabitant participation can enhance the quality of our cities and make them more human (Gehl et al. 2006), develop new aesthetic ideals (Blundell Jones et al. 2005) and lead to real future building development initiatives (Lyons et al. 2001). What all of these processes have in common is the concept of 'empowerment' (Andrews et al. 2006) – and a belief in the great value of empowerment in the planning and management of local communities and in inhabitants serving as key actors in governance processes aimed at developing the city (Swyngedouw 2005; Faga 2006). Our focus derives from our long history in the study area of Hammarkullen and our way of approaching the local community. After many years here, we have become part of the continuous dialogue taking place within and between groups, organizations, companies, the local public sector and the political sphere.

The focus on understanding possibilities rather than problems does not imply the absence of a critical perspective. This paper thus starts off with the difference between, as sociologist Mustafa Dikeç expresses it, *noise* and *voice* (2007: 153), which means being aware of the power aspects determining what information is seen as trivialities and what is perceived as the 'people's voice'. Furthermore, awareness of the concept of *space making* (2007: 172) implies an understanding that it is the government that can define spatial order, as it is the authorities that investigate, identify, name, categorize and put a denotation on different parts of the city – thus distinguishing 'included' from 'excluded'. Understanding possibilities hence implies incorporating this kind of social knowledge into the making discipline

of planning and architecture – and in our case also focusing on stigmatized suburbs built in the 1960s and 70s. Planning researcher Lina Olsson, referring to Lefebvre's *Right to the City*, describes it well:

> The modern city is a place where everyday life is divided into fragments, both spatially and temporally, and the feeling for the city as a collective work has been lost. Most people live in residential enclaves – high-rise areas and suburbs – where the residents got a place to stay (habitat), but are hindered to live socially (inhabit). The homes are objects with an exchange value rather than use value, thus housing has been reduced to a kind of unproductive consumption (Olsson 2008: 67).

The kinds of neighbourhoods this paper focuses on thus have a double weakness considering citizen participation: the people in them suffer from not being heard due to social exclusion and from living in a fragmented modern city built mainly for market and production reasons rather than for social life – one might say that they seem to have been built not to be heard from. As is obvious to many inhabitants living in suburbs like Hammarkullen, this is fortunately not the only perspective on local life, however, this type of knowledge is still important to consider and include in disciplines that focus on the physical environment. As sociologists Callon and Latour put it: the physical environment / the material / the artefact exercises power in itself – it speaks to the surrounding world (Callon and Latour 1981: 284). In everyday life, this is not hard to grasp. For example, if one goes into detail, it is quite clear who has the power over the park spaces in New York where the benches tip forward if anyone lies down on them.

A transdisciplinary approach

The continuous dialogue in Hammarkullen mentioned above began 25 years ago in the 1980s when the University of Gothenburg initiated field-based education in the northeastern part of the city – starting with university students in social work and continuing with art and teaching students. In 2008, Chalmers followed with a place-based Master's course for architects and other designers entitled Suburbs—Design & Future Challenges (suburbsdesign.wordpress.com). In the course, participants learnt to codesign with citizens to develop a basis for their urban design proposals. The field-based design education employs a transdisciplinary tradition, in a close and intensive dialogue with citizens and employees in the area; networking with people outside the area is also of great importance. The university students play an important part in this dialogue. As a result of these experiences, in 2010, the University of Gothenburg and Chalmers jointly started the Centre for Urban Studies in Hammarkullen (www.chalmers.se/urban), the aim being to advance our knowledge in three specific areas: widening participation in higher education, promoting professional and organizational development, and focusing on the role of

citizens in urban change. The strategy was to work in a transdisciplinary manner – creating links between education, research and public outreach.

One of the research projects associated with the Centre is called Urban Empowerment: Cultures of Participation and Learning (www.urbanempower.se). This is a pilot project spanning the period 2010-2011, funded by Mistra Urban Futures (www.mistraurbanfutures.se), an international transdisciplinary centre for sustainable urban development in Gothenburg (2010-2022). With its participatory approach (Argyris and Schön 1995; Krogstrup 1997) and project partners from spheres of the university as well as the municipality, the overall aim of Urban Empowerment has been to develop capacity-building processes that include citizens, analyse how these processes have worked, and critically reflect on how such capacity-building processes could be implemented and supported. The project resulted in ten capacity-building processes per se – in elementary schools and with NGOs – and contributed to built artefacts such as an exhibition hall at the tram stop and plans to build a covered meeting place in the square to prevent continued degradation. The primary and concrete result of the project was its support of and involvement in the capacity-building processes per se. However, the way these capacity-building processes functioned has also been analysed as case studies, leading to critical reflection and theory development on how such processes can best be implemented and supported. On a broader scale, society needs to undergo a change we chose to call institutional *transformation*, which may be considered the social counterpart of the generally accepted environmental concept of *transition* (Stenberg et al. forthcoming). The INTERPLACE project has been involved in the further implementation of the results, e.g. it has led to the employment of a person who in 2011-2013 will work on informing city district staff of what the pilot project has taught us about citizen participation. The same person was also given responsibility for implementing the covered meeting place in the square. This paper will focus on the last-mentioned initiative and our role in the INTERPLACE project, which has been to support it in different ways and also to learn from it in an interactive way.

For us in the Urban Empowerment project, coming from different institutions, working in a transdisciplinary way has implied, as Callon and Latour would put it, exposure of each others' *black boxes* (1981). This is where certain elements are put that do not need to be re-negotiated from scratch all the time. We use these taken-for-granted assumptions hidden in black boxes to win new negotiations. Challenging these to get to know them, understand them, question them, interfere with and, perhaps, help to develop them is time-consuming, but this is what is needed to work with wicked planning issues such as widening gaps between rich and poor, and increased inequality, housing segregation, social exclusion, gentrification and

stigmatization. In addition, for us, working in a transdisciplinary way has implied including inhabitants/citizens in this knowledge-building process.

The strength of visualization

When Chalmers Architecture joined the University of Gothenburg with students in Hammarkullen we realized the strength of visualization. Students in social work and teaching had been involved in community outreach activities with local practitioners and inhabitants for many years before we came, and most people were not aware of their presence. When architects and other designers presented their design proposals based on citizen participation dialogues, however, they had immediate impact and interest locally. Sociologist Bruno Latour might explain this by stressing that artefacts make it possible for the participants to act from a distance (Latour 1998). The most powerful tools for dialogue by the students were models and other three-dimensional expressions such as photo montages, perspective drawings and aerial photos – floor plans and sections were generally worthless because the inhabitants did not understand them. This effect is not unknown by designers. Here, planning researcher Nabeel Hamdi describes the strengths of visualization when the inhabitants built models of their dream houses and how this made them go through a critical reflection process and learn:

> When all the models were made, we laid out a big site plan (same scale as the models) on the floor and asked everyone to put his/her cardboard house on the plot. Suddenly, we had a community in front of us. /…/ When I asked the people whether they would like to live in this community, there was a chorus of unhesitating 'No's'. Then they started talking about how their new community should be. I did not have to tell them anything, no lectures about density or open space or setbacks. /…/ A set of site rules began to emerge (2004: 30).

With this kind of exposure, we initially experienced a period of much interest from the inhabitants in Hammarkullen and great newly awakened focus on the physical environment – the buildings and outdoor urban space – deriving partly from complaints of long-term maintenance neglect of the stigmatized housing area and interest from the people living there, most of them immigrants, in becoming community builders of their society. Their intention was to solve urgent problems and to further develop the society in a direction the inhabitants thought would be sustainable. The strength of visualization thus implied open doors locally and, in this way, the design students functioned as engines for urban empowerment (Stenberg and Fryk 2012). However, the visibility also led to problems: high hopes arose that the students' seductive images would be realized. The inhabitants thought these were realistic expectations as nice environments such as these were to be built in the harbour areas of the city centre, so why not in a stigmatized suburb when the government had stressed for so long that it would make

every effort to solve the problems? The students' work in itself thus empowered the inhabitants to discuss what the right to the city should mean in their environment. The problem was that such a discussion – if not transferred higher up in society – would just hit locally. Hamdi labelled this kind of understanding of the profession *action planning*:

> The rationality of action planning, the workshop, street work and plan-making, lies in the proposition that once sufficient work is done at the neighbourhood level, pressure begins to build up to act at city level and emergence to take place (Hamdi 2004: 101).

We therefore realized quite quickly that the design disciplines obviously could not handle this situation on their own. This was one of the reasons for the interest in the transdisciplinary work, including collaboration with the students and their teachers in social work and teaching, and the outreach activities they had had for many years in the area. Their didactics applied very well to action planning:

> This cycle of doing and learning, learning and doing, acting and reflecting involves a kind of 'activist pedagogy' which is systemic to becoming skillful and wise. The purpose, then, of teaching, given this setting 'is fundamentally about creating the pedagogical, social and ethical conditions under which students agree to take charge over their own learning, individually and collectively', to create their own knowledge, much in the same way as later, in practice, we would expect people to take charge of their own development (Hamdi 2004: 127).

Integrating physical and social aspects at the most local level in Hammarkullen was rewarding. For example, in one specific workshop on participatory architecture, led by a highly skilled South African architect, the students acted as assistants in co-designing a café that ten unemployed women wished to start as a cooperative business in an empty building in the square. The teaching and social work students in each group took on the role of translators, and the architect students took on the role of designers – of the ten unemployed women's ideas. The translation carried out by the teaching and social work students was not about ethnic languages but about helping the designers understand what the women wanted to happen, with the building in focus and vice versa, as they soon discovered that architects and inhabitants clearly did not speak the same language when trying to communicate about the physical environment. The students brought to the workshop was the skills in supporting cultures of participation and learning that they had acquired in their respective courses.

As part of the outreach approach, one local social worker took part in the workshop. He had done his training as a social worker in one of the field-based classes in 1986, and the specific project he was in charge of, the women who wished to start a café, was his way of further developing his

skills, linking spatial and social aspects of the women's ambitions. When inhabitants become co-actors in urban governance and development, they also become producers rather than mere consumers of the urban fabric. Empowerment thus releases and redirects energy and, to a certain extent, can also be considered a source of new energy. What the actions of the social worker gave to the women was time to learn some of the skills they lacked. Thus, he made it possible for them, while on welfare, to acquire training in catering, business economy and health issues. In addition, this training was organized to empower them as a team, which was why he had decided to take part in the workshop with the design students in the first place. In this way, he also made it possible for the social work and teaching students to be part of the learning process – which was very much in line with the learning objectives of their courses.

As is hopefully obvious above, the integration of physical and social aspects in education, research and outreach activities opens up opportunities, not only to make use of visualization in urban design processes but also to use the strength of *codesign* as an engine for urban empowerment to take place.

The strength of codesign

This concept brings us back to the focus of this paper: the employment of a person whose work is to inform city district staff of what we learnt about citizen participation in the earlier mentioned Urban Empowerment project and the implementation of building of a covered meeting place in the square. Both activities were part of a much larger mission of 11 million euro in Angered called Development Northeast (www.utvecklingnordost.se), funded by the European Union through the Swedish Agency for Economic and Regional Growth. The woman who was employed to carry out this mission in Hammarkullen was both an architect and a social worker, moreover she had recently been deeply involved locally as a student in social work, an intern at the Centre for Urban Studies and responsible for a project in which youth as paid summer jobs were working as researchers. Her ambition was therefore high: she was going to carry out the square project in a codesign manner and intended to learn from it not only for herself but also for her colleagues in the city district administration.

What then is codesign? The concept of codesign (*medskapande* in Swedish) may have been used earlier in various ways by designers and researchers but was first mentioned in Hammarkullen as a result of a lecture and workshop carried out by the South African architect Carin Smuts, mentioned above (csstudio.co.za), when teaching participative design methods to students. With Carin Smuts's interpretation, codesign implies architects and inhabitants *designing together* and the design process being shaped in a way that *empowers* the participants (Lyons et al. 2001). In Smuts's view, as she often

works in poor townships, this means becoming involved as an architect also in the funding of the building project because it would not be empowering to carry out codesign and then not build it – the state/municipality in South Africa does not often invest in buildings in townships. There are close points of similarity with Sweden when talking about investments, at least the inhabitants in exposed suburbs such as Hammarkullen tend to see some likeness. We will return later in the text to the importance of actually building something after codesigning it.

In the following, I will be describing what the process looked like when the project leader implemented her tasks. She started the process by carrying out about 15 in-depth interviews in March-April 2012 with local actors – employees and inhabitants. The unison message was: do not build a covered meeting place in the form of a tent in the square, which was requested in the funding application, because it will be burnt down immediately. The proposal had not been anchored enough when the application was sent in more than a year earlier and, after that, heavy cuts/reorganization of the local schools had been decided on by local politicians to be carried out during the spring – so there were many inhabitants who were extremely angry and frustrated about the situation in Hammarkullen. Just building the covered meeting place would have been an example of what tends to happen in our fragmented society: 'jumping to solutions – reorganization, replanning – without spelling out what the problem was or if there was one' (from Popper quoted in Hamdi 2004: 12). Changing the use of EU funding is not easy, but the project leader succeeded even if it took some time. In the beginning of the summer, she had anchored at all levels that the funding could be used for building 'something' in the park instead, which had been asked for recently, as the municipality just the year before, to the people's great frustration and as a result of a new law for public companies (an EU adaption it was said), had withdrawn a refurbishment initiative in the neglected park in the middle of the housing area. The new project became labelled the 'patio' and had a total budget of 220,000 euro.

After that, the project leader had engaged two part-time architects to carry out the design process of the 'patio'. They were two former students from the Suburbs Master's studio and they formed a process that started in May and ended in October. The aim was codesign of the 'patio', thus the whole process was to be capacity-building, hence empowering the involved actors and improving the urban space of the park. The design process consisted of a number of tools that were put together:

▪ May-June: *Interviews* with more local actors (inhabitants and local employees at the youth centre, schools etc) about the park and what activities people were interested in doing there.

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- June: *Information and invitation* to the inhabitants to take part in the design process via email and posters put up in the area, and to a very large extent also word of mouth through all the local associations (there are 46 of them in Hammarkullen), which informed their participants in various ways, some via social media but most of them by word of mouth, which seemed to be the most effective way to reach out in Hammarkullen. There was also intensive information and lobbying before each activity.

- June-July: *Interviews* with municipal actors who needed to be involved in the design and building process, and traditional information collection about the prerequisites.

- August 19: Public '*idea party*' in the park on a Sunday when nine different tools were used during the day to collect information and hold a dialogue with the inhabitants:
  - *music* (rap, break-dance, pop, rock) from a stage to attract people to come and stay
  - *refreshments* in the form of salad, coffee, tea, juice and fruit also to attract people to come and stay
  - '*storytelling tent*' with old photos and people knowledgeable about the history of the area and the park aimed at hearing more stories from the inhabitants
  - '*your say map*' on which people could mark with stickers what they used the park for today, what they wanted to be safeguarded and what things could be taken away – they could also propose new functions by writing them on post-it notes and putting them on the map
  - '*idea wall*' which was a) an exhibition with design proposals for the park, b) inspirational photos from other urban spaces – a and b both consisted of pictures with ideas from former architect students and the aim was to hear what people liked and disliked (they put red and green sticky notes on them), and c) a place for free comments on post-it notes
  - *roundtable conversations* with the aim of hearing in more detail what activities people would prefer in the park and for them to discuss them between themselves
  - '*treasure hunt*' for children 5-12 years old with the aim of hearing what they liked and disliked about the park (they were given tasks related to the senses in certain places, which made them explore it and comment on it, and in the end they found the treasure)

In total, about 200 inhabitants were involved to some extent, of which 50 were children, and quite a few passers-by took a quick look without staying as the park is in the middle of the passage between the tram stop and the housing.

▢ August 28: *Workshop*, three hours with 13 adult inhabitants with mixed backgrounds who had volunteered and formed a focus group. There were 5-6 other participants, including me, who followed the process and staff from the park and nature administration who will later take over responsibility for building the 'patio' – they followed almost every activity in the process. Sandwiches and coffee/tea were served at the start. The theme was what *activities* to focus on when designing something in the park. The architects guided the group through a common selection process in which five groups of activities were finally chosen out of the large number suggested earlier and during the evening:

- sit and rest, converse, watch the greenery and people, listen to the water
- paint, draw, graffiti
- dance, listen to music, climb, have coffee, barbeque, eat
- swing, ice-skate, play chess, watch a film
- play beach volleyball

▢ August 29: *Open discussion* for a couple of hours at the youth centre. The architects used *inspirational photos* for communication and the youth liked the electronic equipment such as lights in ground plates to step/dance on. Overall, they stressed the need for outdoor spaces to 'hang' in and also thought the park should be better designed for barbeques. Two of the girls became deeply involved in the design process of the 'patio' and came up with detailed suggestions for the form *sketched on post-it notes*.

▢ September 2: *Workshop*, three hours on a Sunday with the focus group again, this time with 11 adult inhabitants of whom 7 were new (which was not presupposed but solved by the architects briefly running through the previous process). The theme for the day was feelings: what would the place feel like and what should it express? *Inspirational photos* were used for the dialogue and the discussion ended by choosing five photos with *descriptions of feelings* that represented the group. On this day they also focused on which place in the park to choose for the 'patio'. Based on all the previous activities, two places had been chosen and the group *went out to inspect* them. Then they went through a minor *swop analysis* together, putting pros and cons on the table. They agreed on one of the places as probably being the best choice.

▢ The two architects continued the design process on their own, with '*ordinary' design tools*, as they had done between the workshops all the time.

▢ September 15: '*Test party*' in the park. The aim was to present a midway design proposal for the inhabitants involved and discuss it with them. This was presented on a Saturday afternoon as a *full-scale model* in the park, in a place constructed by chicken wire and corrugated cardboard. Passers-by

were also informed about the 'patio'. The shape of the curved seating area had been inspired by the Gaudian sofa in Parc Guell in Barcelona. Afterwards, 13 inhabitants, this time adults and children, quite a few of whom were new to the process, sat down indoors for a relaxed and not very controlled *discussion* of the proposal. Overall, they liked the 'patio' but also came up with disruptive proposals for changing everything. Many of the inhabitants emphasized the importance of lighting if the place were to be usable in evenings and in winter time. They also discussed whether the large trees were in the way.

▢ September 19: *Workshop* with the focus group, three hours in the evening. The South African architect Carin Smuts happened to be in town and had planned the workshop together with the two architects. There were many more people than expected, 21 inhabitants, the majority of whom were new to the process, and the tools for the evening had to be changed hastily. The idea was to go into detail on the design, and focus on colour scales and pattern, but instead it became quite a chaotic process in which the inhabitants in three groups *sketched* what they wanted the 'patio' to look like. One '*dream place*' was thus drawn by the youth group, one by a group of children and adults, and one by a group of local artists.

Perhaps the most interesting outcome of this workshop was that it was obvious to all participants – including the project leader and the employee from the park and nature administration – that many of the inhabitants would like to be part of the actual building process of the 'patio'. This had been discussed earlier as a definite possibility but was heavily stressed this evening by the local artists as they came to the workshop very annoyed that they had not been involved in the recent process of adding art to the underground tram stop in the area. At the workshop, even though they thought the 'patio' would be much better placed in the square, they participated and contributed much of their knowledge and aesthetical views to the design process of the 'patio' in the park. The workshop was thus organized in a way that gave them a voice, and their critical opinions were listened to and used creatively. This was an interesting (perhaps subconscious) example of how a so-called *deep democracy* approach (deep-democracy.net) handles negative voices. This approach emphasizes that every voice matters and by including the knowledge of the no-man/woman, it avoids not only being stabbed in the back afterwards (which is what policy-makers most often refer to as the meaning of citizen participation: avoiding appeals) but more importantly the decision is wiser. This happens because the no-man/woman expresses a fear that he/she shares with everyone else, but it is hidden in the subconscious of most people. Inviting a no-man/woman thus opens a black box. In this way, conflict is a trigger for learning (Krogstrup 1997) and release of knowledge production.

October 5: *Exhibition* held on a Friday afternoon at the tram stop, which is the only stop in the district and therefore many people pass – and many stopped to take a *sweet,* which was a useful tool for reaching not only children but also youth. The comments from people were generally positive. The woman from the park and nature administration also came with great news: they had decided to budget some money for refurbishing the park also around the 'patio' to give the limited effort, given the needs, a greater impact. There were also doubtful comments from inhabitants about the 'patio'. Some of the artists came and mentioned that they themselves would actually like to design a statue in the square – they thought it was wrong just to focus on the park when the square had so many problems. Another voice came from an employee at the youth centre who was extremely worried about the worsening situation for the youth with a significant local increase in drug dealers and threats to young people and adults who reported crimes. He argued that the 'patio' would become a place for the 'bad guys' if it was just built by a contracted company. Then again, those responsible for the 'patio' had reason to consider the building process and in fact an interesting discussion about 'social tenure' took place there at the tram stop – what it is and what it could be in Hammarkullen – and anything seemed possible.

I will return to social tenure/procurement later in this paper, it would just be very interesting to reflect briefly on why this quite free conversation took place at the tram stop. Partly it had to do with timing. The employee from the youth centre happened to be passing and left his comments just when the exhibition drew together a number of powerful stakeholders involved in the design and building process of the 'patio'. The reason for the timing, however, had to do with space. The exhibition was held in an urban space that was not 'owned' by any of the participants. It was a space for passing inhabitants and local employees in as much as it was the space of the two architects, the project leader, her boss, the employee at the park, the nature administration and the academics. Anyone could say anything without asking permission from anybody. There was no predicted agenda and no time constraints. The furnishing of the space gave no one ascendancy over another. The aural conditions were terrible if all those who attended the exhibition wanted to hear the others well, but favourable if someone wanted to say something informal to three or four persons. It was a place for spontaneity and for testing ideas. From a reflective perspective, these circumstances may be described as giving shape to an 'interspace' or 'interplace' (Stenberg and Fryk 2012) between different professional bases – such as the city district administration, the parks and nature administration, the municipal project funding the 'patio', academia and civil society. In the interspace/interplace, abilities such as listening, curiosity, respect, confidence-building and 'negative capability' (Keats 1899) – the ability to act

in uncertainty and chaos – serve as a basis for the prevailing mode of communication.

⬜ After the exhibition, the two architects *completed the sketches and turned them into CAD drawings,* and the project leader handed them over to the park and nature administration for tender and construction. The two architects worked on this assignment together for approx 700 hours. My description of the process stops here as it is still ongoing. The 'patio' was first planned to be built before May 2013 when the Carnival will take place in Hammarkullen, but as the project was widened with new funding it is now planned for completion of the building process in autumn 2013.

This description of a codesign process may be referred to as putting together certain tools in a toolbox suitable for a specific task. Knowledge of the tools is of course crucial for designers/planners, as Abraham Maslow put it: 'For those who only have a hammer in the toolbox, every problem looks like a nail'. There are hundreds of communicative tools to choose from (see e.g. Steyaert and Hervé 2005) and to become skilled in – in peaceful situations as well as in uncertainty and chaos. However, the tools cannot be considered on their own but as part of a process carefully designed for knowledge production in which all the actors are involved. This is what transdisciplinary work has been about for us: a knowledge view implying that all the actors, as well as the inhabitants, are knowledge *producers*, knowledge *bearers* and knowledge *users* – a strategy in which citizens together with the other actors *build* society and community as part of their everyday life (Stenberg et al. forthcoming). In this view, the question about domination of space is one about who has the right to put knowledge on the table in a design/planning process.

The handbook 'Methods for meetings' (Ranger and Westerberg 2004) includes not only a series of tools for collaboration and investigation but also a description of which tools are appropriate for specific phases of a project. The phases they mention are

1. Reflect on the prerequisites
2. Search for partnerships and be visible
3. Create togetherness
4. Produce a joint strategy
5. Go from strategy to action
6. Evaluate and learn from the project
7. Care about what happens afterwards

Quite often when architects and planners are involved as consultants for participatory design they are hired just for phase 4 of the process, at best

phases 3-5. Professionals who are not skilled in participatory tools and process design may take care of the rest, or it may be left in a state of uncertainty, which creates a great deal of frustration and is an important cause of 'betrayal debates' afterwards. The first phase, reflection on the prerequisites, is crucial as this is when the consultants negotiate with the client the aim of the mission, which governs which actors to involve and how. Knowledge about participatory tools and process design is extremely important to include in this part of the decision-making. The same applies to the last phase, caring about what happens afterwards, which leads us to the final part of this paper: social tenure.

The strength of coproduction

In the case described above, the project leader will most probably take responsibility for all seven phases, and, with her double competence in architecture and social work, she is quite knowledgeable in the area, even if she may not be as skilful as the two consultant architects who have taken part in the participatory design course mentioned earlier. The 'tunnel vision' or 'down pipes' approach of many municipalities when it comes to implementing projects is a threat, however, now that the park and nature administration take over responsibility for the project. Will the 'rain gutter' approach with crosswise communication and knowledge production remain? Will they succeed in 'taking care of what happens afterwards'? The first difficulty, which was to actually build at all, which is important after a codesign process, seems to have been overcome – and with the extension of the project even more will be built in the park. The next step is to meet the needs and knowledge of the worried local actors mentioned earlier: Can the 'good guys' be involved in the building process and can the process facilitate them making the 'patio' their place? With the 'good guys', the youth worker meant local institutions having close cooperation with the surrounding society as part of their ordinary weekdays: youth and employees at the youth centre and in local schools, local artists, local NGOs, community-based social workers, local shop owners, etc. and including their knowledge in the building process through coproduction of the 'patio'.

To support such a development, the municipality recently changed its regulation for city district committees, and in 2011 it gave the ten districts far-reaching responsibility for citizen participation in urban design processes – thus decentralization of responsibility for the physical environment in the city has been implemented. Moreover, this strong focus on citizen participation has been stressed in the written budget documents for Gothenburg during recent years, and in 2012 the budget also stated that tenure of services with social considerations should increase. These facts are important as they actually go towards the EU Commission legitimizing tenure in a way that supports the view presented above: it gives the municipality the right to carry

out social tenure (Upphandlingsbolaget 2012: 6) or, in EU language, SRPP – socially responsible public procurement (Europeiska unionen 2011: 7).

Social tenure can be many things, however, and the legal position in Sweden is developing. In Gothenburg, the municipality distinguishes between ethical standards and social responsibility, with the first-mentioned being about the production of goods and the other referring to our focus: it is about (a) supporting increased citizen participation in society and (b) facilitating the unemployed getting jobs (Upphandlingsbolaget 2012: 4). Examples of social tenure in stigmatized Swedish suburbs include the contracted company undertaking to either hire unemployed construction workers living in the area or involving youth from the area as interns during the construction phase. This kind of social tenure is thus legitimized to carry out when the construction of the 'patio' is being procured.

It would be very interesting, however, to search for knowledge locally of what the actors actually meant when stressing that the building process must involve 'the good guys' and saying that otherwise the construction of the 'patio' would contribute to the park being an even more scary place than it is today and increase the barrier effect it has in the area between the square/tram stop and the housing. If done as before in Sweden and to the extent we are talking about here, social tenure may actually just imply that one or two inhabitants get involved, which would be great for them if they get a job, but the effect on the community would be very limited. How can social tenure be implemented in a way that involves people more? Including many of the youth coming to the youth centre? Attracting all ten local artists? Inviting an entire class from one of the local schools? Involving all the students at the local music college? Including inhabitants and local employees as community builders and making use of their knowledge when changing public open space? What would such a tool in social tenure look like? How can it be scaled up? Developing this kind of knowledge would be the start of answering the question 'What is the strength of coproduction in urban empowerment processes?'

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Download Lomap and let the world know what you think of your neigbourhood or city!

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ABSTRACT. Get out in the streets and take pictures of your neighbourhood or any other place you feel you have an opinion about. Is it a place that gives you the creeps, or on the contrary, somewhere you feel completely at ease? Your home, friends, favorite hangout, intriguing graffiti, but also that alley full of garbage, a street that screams for a sidewalk,... you decide.

By choosing the right colours and tags you do more than 'just take a picture': you give us your opinion. And thanks to the lomo-effect, the world doesn't only know what goes wrong or right, but with the same effort you have a cool foto documentary of your neighbourhood.

Lomap is used by JES as a tool in a variety of projects and workshops. Mostly within a youth work context. One goal of the tool is to make kids and youngsters (more) conscious about their own environment and to stimulate them to speak up about it. Another goal is the implementation of this tool within a design and planning context. JES strongly believes the opinion of kids and youngsters has to be heard and that it can make a difference in different domains and on several levels in our society.

Yota!

Citadelpark, a participation track seen from the perspective of the municipality

Nele Vanhooren

ABSTRACT. The Municipality of Ghent allocates much importance to knowing what is happening in the city, in discovering the expectations of the inhabitants and other city users, so as to attune and achieve its policy. In order to pursue this aim, it needs to be informed of the desires, concerns and difficulties of its citizens. Consequently, the Municipality of Ghent has a vested interest in the communication to its inhabitants. The basic principle is that participation will only succeed if people are being well informed. By various means of communication, they are first and foremost informed of the policy and are subsequently involved in the participation process in the broadest sense of the word.

Whenever possible, inhabitants/users are being asked to express their opinion, to take part in the decision making.

There are two key boudary conditions in larger strategic projects such as Citadelpark for a well organized citizen involvement. First, a participation track has to be set up at the beginning of the planning proces. Secondly,the participation has to be embeddedin the project organization.

Theme 3:

Sustainability and Climate in Public Open Spaces

Towards Sustainable Cities: Improving urban environment, through open space bioclimatic interventions
The ASPIS project

Margarita Karavasili
Architect d.p.l.g., urban & spatial planner
President: "Citizens' Inspectorate for Sustainable Development"

ABSTRACT. This paper will present urban microclimatic changes caused after bioclimatic interventions in public open spaces to combat «Heat Island» effect providing considerable energy savings and in the same time a more sustainable future. It presents some best examples of bioclimatic interventions, in Greece, by the transformation of busy streets to vegetated and shaded pedestrian ways, or by the

transformation of squares and other open spaces, referring to the design based on local climate, aimed at providing thermal and visual comfort, making use of solar energy and other environmental sources, (for example, sun, air, wind, vegetation, water, soil, sky) for sustaining public open spaces. In the other hand, adopting a more balanced approach to accessibility and security could help to sustain both,

business and community interests and to make open spaces not only "elements" that embellish the city's character, but also a central and vital urban element which will be a good indicator of high level quality, where more people will want to join. Public spaces can stimulate again social relations and interaction through the presence of music, art, food, discussion and festive day celebrations. Designing

public open spaces in the urban environment we have to consider seriously the bioclimatic approach in order to ensure thermal comfort conditions and in the same time to minimize the urban heat island effect and its consequences, as for to make cities more sustainable. Various models and tools of different complexity have been developed, tackling different issues of the physical environment and the resulting environmental performance. These, provide insight on the different aspects of the

environment, and means for analysis at different levels of complexity, for a range of users from beginner to expert.

KEYWORDS. sustainable cities, heat island, microclimate, bioclimatic approach, shading, vegetation, materials, water, outdoor comfort

1. Introduction

Roughly half of the energy consumed in Europe is used to run buildings. A further 25 % is accounted for by traffic. Large quantities of non-renewable fossil fuel are used to generate this energy, fuel that will not be available to future generations. The rocesses involved in the conversion of fuel into energy also have a lasting negative effect on the environment through the emissions they cause. In addition to this, unscrupulous, intensive cultivation,

a destructive exploitation of raw materials, and a worldwide reduction in the areas of land devoted to agriculture are leading to a progressive diminution of natural habitats.

The growth of towns and cities, the transport and construction practices are faced with new difficulties, produced by the need to be in line with many and serious environmental requirements, aiming at minimizing the negative environmental impacts created by human activities.

This situation calls for a rapid and fundamental reorientation in our thinking, particularly on the part of planners and institutions involved in the process of construction. The form of our future built environment must be based on a responsible approach to nature and the use of the inexhaustible energy potential of the sun.

The rational natural resources use and the use of renewable energy sources are the new priorities based on some old, but efficient–traditional values and Principles inspired from tradition. Traditional settlements and Architecture respected the landscape and the local climatic conditions. These old Principles are the same with the urban ecology principles of today.

In the debate on sustainability, a lot of time and effort goes to buildings, which are responsible for almost 40% of the total final energy consumption on a European and national level. This consumption, either in the form of heat (using primarily oil) or electricity, besides being a significant economic burden due to the high cost of energy, results in large scale atmospheric pollution, mainly carbon dioxide (CO_2)

which is responsible for the greenhouse effect.

But, in the same time it is very crucial to investigate initiatives, designs, research and proposals that challenge the sustainability of the public open space and the role participation plays in this and in the same time in combating urban heat island effect.

As urban areas develop, changes occur in their landscape. Buildings, roads, and other infrastructure replace open land and vegetation. Surfaces that were once permeable and moist become impermeable and dry. These changes
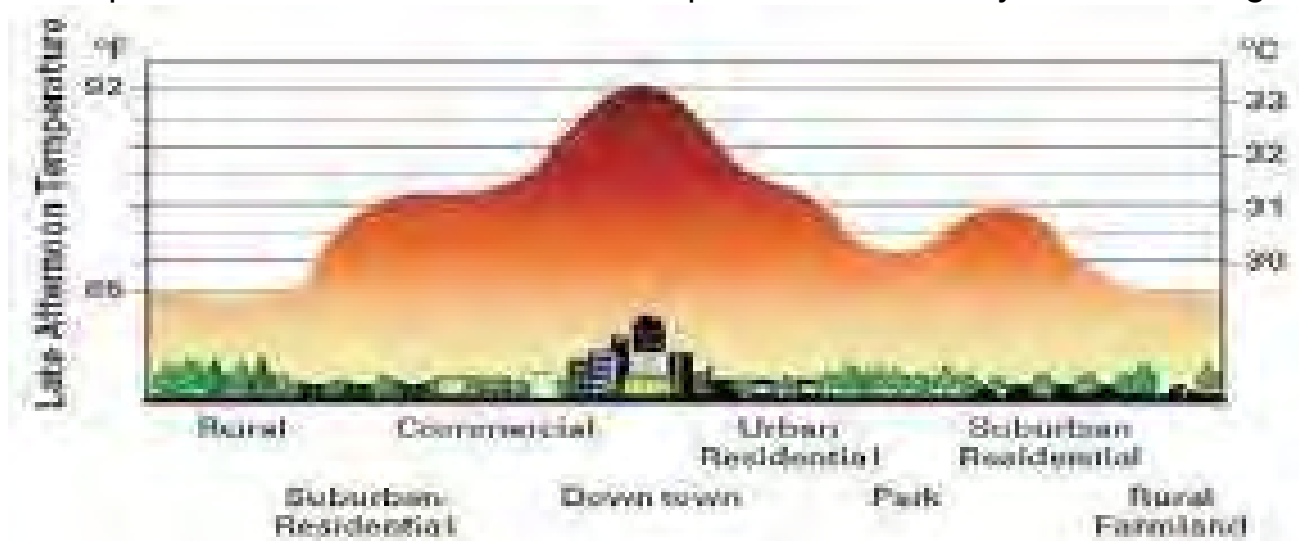
cause urban regions to become warmer than their rural surroundings, forming an "island" of higher temperatures in the landscape.

Heat islands occur on the surface and in the atmosphere. On a hot, sunny summer day, the sun can heat dry and exposed urban surfaces, such asroofs and pavement, to temperatures 50 –90°F (27– 50°C) hotter than the air, while shaded or moist surfaces -often in more rural surroundings- remain close to air temperatures. Surface urban heat islands are typically present day and night, but tend to be
stronger during the day when the sun is shining.

The Urban Heat Island Effect is the increase in temperatures that result when large amounts of concrete and asphalt in cities hold more heat than a
rural area would hold. Also, tall city buildings limit air flow and there is little vegetation to provide cooling through evaporation. Urban planners also set up
traditional parking lots along lots where trees and vegetation grow. Tall trees not only contribute to evaporative cooling but also provide much-needed shade.

Heat-related illnesses increase in cities that can be up to 10° F warmer than already hot temperatures in surrounding areas.

Reducing Urban Heat Island Effect is a major challenge in our days. And it is possible by using light colored concrete surfaces, pavers and/or open grid pavement used in non-roof areas, for higher albedo (reflectivity), design entrance plazas, walkways and parking lots with light decorative concrete pavement,
and surface parking with open grid pavers, consequently saving energy also resulting from decreased night lighting requirements.

One fad that's gaining popularity is the installation of green roofs atop city buildings. This solution doesn't have anything to do with color. A "green roof" is simply a roof that includes plants and vegetation.

Green roofs harness the same evaporative cooling effect that cities lose when they hack away vegetation. So a green roof not only prevents the building's roof from absorbing heat, but cools the air around it, offsetting the urban heat island effect to an extent. Many sustainable buildings use green roofs to reduce their reliance on energy consumption.

Several other methods help reduce the urban heat island effect as well. For instance, roof sprinkling is another evaporative cooling solution. Sprinklers on the roof wet the surface so that the air around it cools through evaporation. Urban planners also set up traditional parking lots along lots where trees and vegetation grow. Tall trees not only contribute to evaporative cooling but also provide much-needed shade.

But the most important solution is the ecological revitalization of urban open spaces, to improve urban microclimate, introducing a new approach, which, to date, has only been applied in very few cases. That means mainstream energy efficiency measures and relatives buildings retrofitting procedures and specifications, within a new integrated concept of urban, and especially, municipal energy planning from the preliminary design stage.

In this direction, one of the basic requirements and specifications is to apply bioclimatic design criteria and evaluation methodology for assessing proposals,

in order to upgrade open spaces making them act as microclimatic "oases" and contribute positively to local climate, while further encouraging other climate change mitigation activities such as walking and cycling.

Special attention has to be given in order to ensure the bioclimatic character

of the interventions and, therefore, achieve actual improvement of the microclimate within and around the retrofitted area.

2. Open public spaces: the challenges

Urban public spaces have been host to many political, social and economic activities throughout history. From the early days of the agorae in Greece, where bustling trade occurred to the Place Royale in Paris where political revolution took place, public space has been at the core of many cities' most important happenings. The core functions of public space have the capacity to radically change with the passing of time. The use of public squares, as car parks instead of markets, is a good example of these different approaches by different cultures throughout history can be clearly seen, but public space today is perhaps at its most interesting juncture as it struggles with new issues such as privatization and over commercialization. The squares and streets of cities have historically been closely tied to markets and commerce but worrying trends of serving business instead of community are emerging.

The significant influence of urban materials, surface properties, shading and vegetation on the microclimate of urban areas has been widely studied

and analysed with monitoring and simulations of various urban environments in different scales Introducing microclimate design in energy efficiency policies is seen as a means to create a framework for wide scale applications of fully integrated local planning for climate responsive cities. Local authorities in Greece are generally active in landscaping outdoor spaces. In order to achieve actual climate change mitigation benefits on a short and a long term basis, detailed directions and specific evaluation criteria were developed.

The improvement of the energy characteristics of the open public spaces is expected the reduce the heat island effect, contribute to the improvement of the microclimate at urban scale as well as at the scale of the surrounding buildings, and will yield a series of other benefits with respect to life in the urban environment. The energy benefit to the surrounding buildings will result from the reduction of the cooling load during the warm periods of the year.

Apart from the energy savings, the expected results concern the overall improvement of the urban environment to the direction of rendering cities sustainable. For instance, increased tree coverage and vegetation will improve thermal, visual and acoustic comfort conditions, provide evaporative cooling, ameliorate air quality and filter the air from pollutants and particles. The comfort conditions and overall improved quality of urban spaces will encourage several recreational activities as well as cycling and walking, resulting in limiting car usage and, consequently and in reducing energy consumption and CO_2 emissions.

In the other hand, architects and engineers, concerned with environmental sensitivity, are now employing a variety of strategies to limit the

environmental impact of building construction, reusing old existing building's stock, through adaptive energy efficiency measures, but also in redesigning sustainable public open spaces.

For new construction, architects can better control the use of materials and reduce waste by utilizing materials that require little energy to produce and ship, are renewable, modular and prefabricated.

Various models and tools of different complexity have been developed, tackling different issues of the physical environment and the resulting environmental performance. These provide insight on the different aspects of the environment, and means for analysis at different levels of complexity, for a range of users from beginner to expert. The range of tools developed includes the following.

✓ Simplified models to predict thermal comfort conditions, using publicly available meteorological data, along with information on thermal sensation and adaptation characteristics.

✓ A methodology to evaluate the velocity profile of an area with simplified design recommendations for the effect of a neighborhood on the wind conditions of an open space.

✓ A graphic tool to evaluate the thermal comfort conditions of a design scheme, giving a variation of the radiant thermal load as a function of the use of different materials.

✓ A methodology for evaluating the environmental impact of alternative urban forms, examining the environmental performance of urban textures, contributing to temperature, sun and wind analysis.

✓ A methodology for drawing comfort maps, concentrating on the spatial analysis of thermal comfort zones.

✓ Relationships between measurable parameters and users' sensations for the luminous environment, along with a methodology to assess cumulative sunlight penetration in a given space through multistereographic projections.

✓ A methodology for describing the soundscape in urban open spaces, comprising of characteristics of each sound source, acoustic effect of the space, social and other aspects, along with simplified models for sound propagation in urban squares.

✓ A methodology to connect the social issues experienced in contemporary urban life with the physical properties characterizing an open space. The issues and indicators, which have arisen, link together the overall social function of urban open spaces and the descriptive analysis of selected open spaces with the design procedure.

These models and tools are to be employed by architects, planners or other urban designers, at the early design stage for interventions in the urban fabric or even new developments within the urban context, in order to evaluate the environmental impact of different design proposals. In addition, a list of

indicators has been developed for the socio-economic implications of the development of outdoor spaces for urban activities.

These various models and tools are presented in the Guide "Designing Open Spaces in the Urban Environment: A Bioclimatic Approach", ISBN: 960-86907-2-2, © 2004, Centre for Renewable Energy Sources (C.R.E.S.). This Guide examines the design of open spaces through bioclimatic principles, as evaluated in the context of project RUROS.

3. Bioclimatic design of open public spaces: best practice examples

Designing and applying several techniques based on bioclimatic architecture criteria and on passive cooling and energy conservation principles is necessary in our days in order to improve the urban thermal comfort conditions in an outdoor space location.

Providing guidelines and methodologies could support the whole effort in order to accelerate understanding of bioclimatic principles in the design of public open spaces, while the implementation of selected designs will further demonstrate the overall benefits.

In the case of Greece many efforts have been undertaken and it is expected that this approach will accelerate implementation of urban microclimate design all over the country and provide a basis for new good practice applications. Estimated energy savings are approximately 1.1 GWh (96 toe) yearly, amounting to approximately 1kt CO_2.

Many studies have calculated the thermal comfort conditions in different outdoor space points in Athens (experimented location), using two different

thermal comfort bioclimatic indices developed to be used for outdoor spaces, such as the "Comfa", which is based on estimating the energy budget of a person in an outdoor environment and the "thermal sensation", based on the satisfaction or dissatisfaction sensation under the prevailing climatic conditions of the outdoor spaces.

Calculations were performed during the summer period and two different scenarios of the constructed space parameters have been considered.

The first scenario consists of a conventionally constructed space, while the second one includes various architectural improvements according to the bioclimatic design principles. The two bioclimatic indicators were used for calculating the outdoor thermal comfort conditions in the above-mentioned outdoor space locations for both scenarios and the effect of the bioclimatic design architectural improvements on the human thermal comfort sensation was presented and analyzed.

A square located in the suburbs of Athens, Alimos, was designed on the basis of bioclimatic criteria in a biois partially shaded by both the galleries & the trees. *(Users have various choices concerning their need for solar exposure in summer).*

It is clear that parks with grass and flowers together with water surfaces provide cooling in summer. Darker, non-reflective materials are used under the galleries. (Overheating protection s provided by shading these surfaces.). Light colour surfaces cover the inner area of the site.
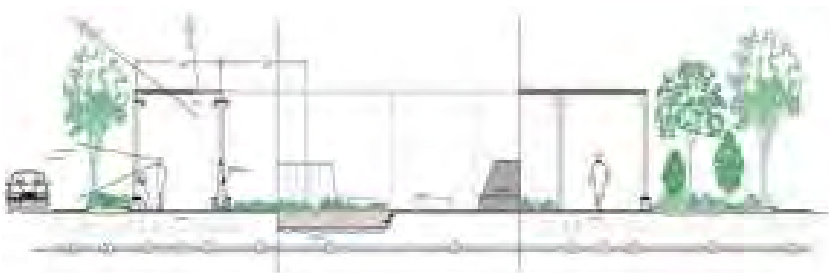
The area is visible from ground level & from the surrounding buildings. The playground is in lower level to prevent younger children from escaping from their escort's attention and to provide tiers for escorts to rest (both shaded & exposed). No vertical elements around the playground, to prevent accidents. During the night there is provided adequate lighting of the area. Finally, water surfaces provide a pleasant sound.
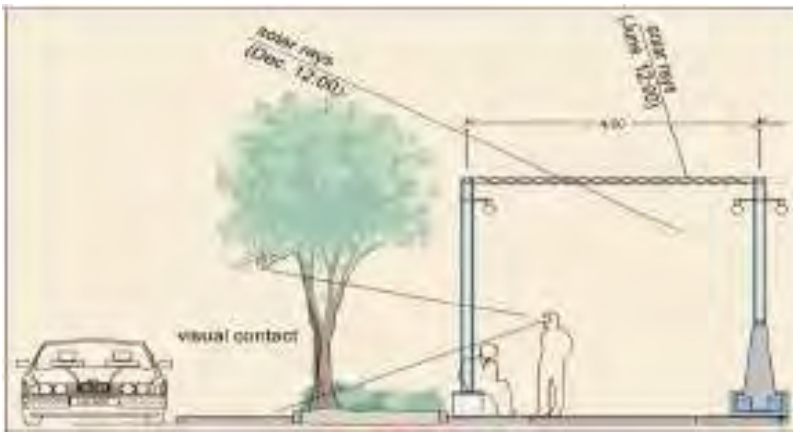
3.1. One street in the Municipality of Thermes

The selected street (Fig. 1) is about 370m long, In the other hand, the sites are located in a relatively dense, mixed use areas in the suburbs of Thessaloniki and concerns a street in Thermes, due to be renovated and a project concerning the redesign of Katsantonis Park and perimeter roads.

Oriented EW (with a 20o angle), and divided into four sections by crossing streets. The average width is 14m and most of the buildings are about 7m high, therefore the H/W ratio of the street is relatively low.

The proposed interventions (Fig. 2) of the previously developed design project have been subject to several restrictions and requirements such as the access availability to vehicles for supplying the shops, and the easy and low cost maintenance of the proposed structures and the infrastructure (the underground supply networks). A hard surface pavement of non-reflective material (red asphalt) is therefore proposed on the central axis of the street, covered by a light gallery with shades, to be used primarily by pedestrians and secondarily for vehicle access, in specified morning hours.
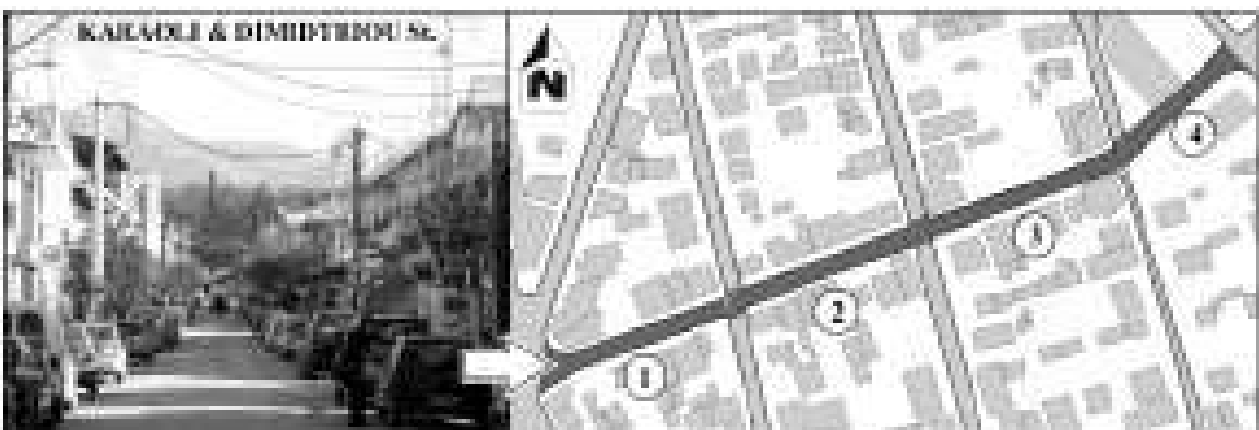
Figure 1. Plan of the street due to be redeveloped to a pedestrian way. Section 2 is the area under assessment.

On the sideways coloured ground surface materials are proposed to signify different parts of the area. Vegetation and trees are proposed along the sides of the central gallery and more dense vegetation zones in several small

"squares" forming regular interruptions on the side pavements. Fountains, springs and small water pools are proposed along the side pavements as well as scattered sitting areas and sculptures [1].

Continuous measurements of air and surface temperatures were taken at different parts of the area during a sunny and a cloudy day in March 2005 and compared with simulation results for the same days, to examine the accuracy of the simulations. The mean daily climatic data from the meteorological station was used as input for each day (Tair `18oC & 12oC, R.H. 44% & 61%, wind speed 5m/s & 4.4m/s NW) [3]. The comparison revealed discrepancies in air temperature, between measurements and simulation results, but a relatively good agreement in surface temperatures of different pavement materials.

In particular, hourly differences between simulated and measured air temperatures were low with cloudy sky and higher with clear sky, with a relative error up to 33%. The general trend was a smaller daily fluctuation of the simulated air temperatures compared to the measured ones, although the daily average values were similar.

Design proposal

Models of the existing conditions and of the proposed interventions were simulated and the results at four points of the street (Fig.2) were compared, to examine the effects of the design proposal. Simulations were run for a typically warm summer day of July, (48hour simulations in order to receive more accurate results on the 2nd day) with the monthly average climatic data as input (Tair 26.6oC, R.H. 53.2%, wind speed 2.6m/s NW).`
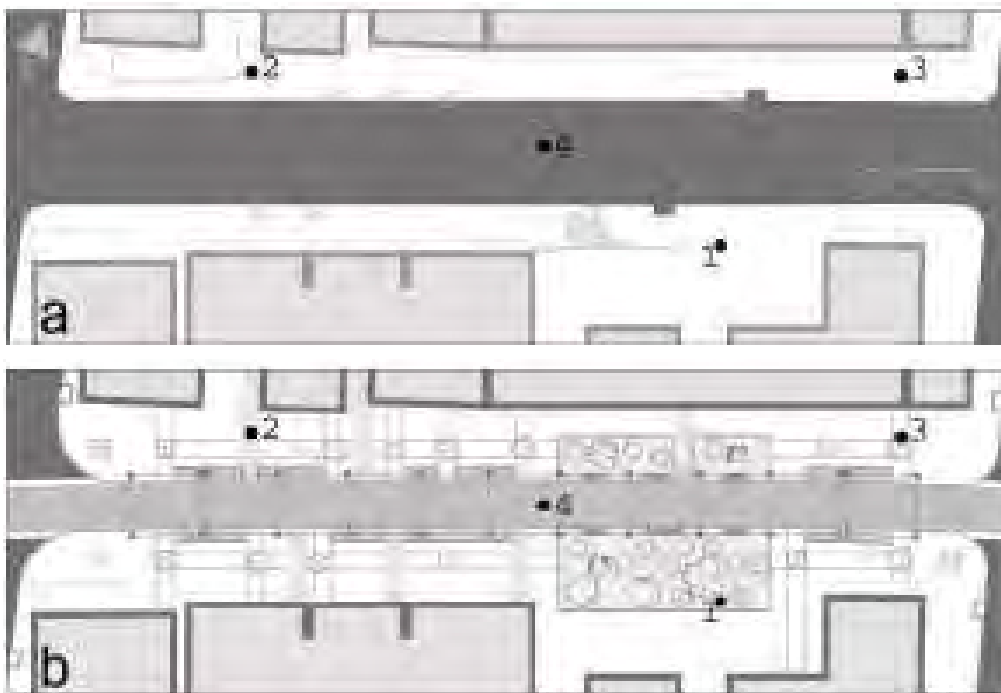
Figure 2: Plan of the street (a) at the original conditions and (b) with the proposed interventions.

In the model of the original conditions, points 1, 2 and 3 represent concrete pavement and point 4 dark asphalt roads, while in the proposal model they are modified into soil, red ceramic tiles, soil under trees, and red asphalt pavement under the gallery, respectively.

The high differences in surface temperatures are due to the reduction of solar radiation reaching the ground and in the replacement of pavement materials which alter the heat flux through the surface. Solar radiation on the ground surface is reduced at all points both by the addition of trees and the shading cover at the central axis.
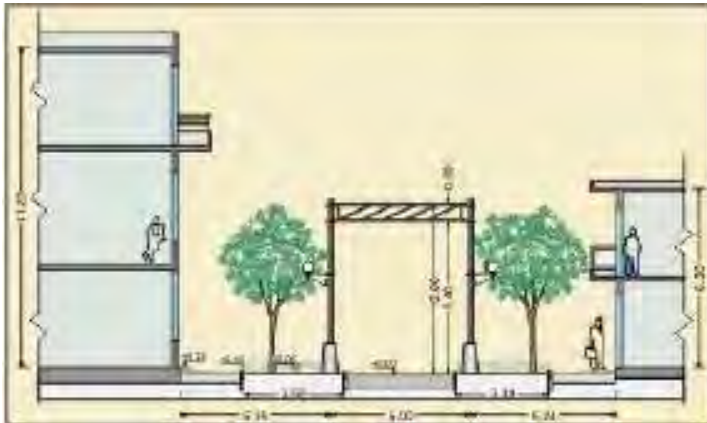
At point 1 direct radiation is reduced by up to 915.82W/m2 at 14:30 while at points 2, 3 and 4 is totally obstructed in the morning, noon and afternoon, respectively. At points 1 and 3, where hard surface is replaced by soil and vegetation, latent heat flux from the ground surface at 15:00 is increased by 199.62 W/m2 and by 422.51 W/m2 respectively.

For the parametric studies, each type of intervention was simulated individually, however, the red asphalt pavement and the shading cover on the central axis of the street was included in all the models (point 4) as a component that due to technical requirements could not be avoided in the redevelopment of the street.

Wind speed is generally low (0.41 – 0.92m/s) and only slightly reduced, up to 0.17m/s, at the points where trees are added.
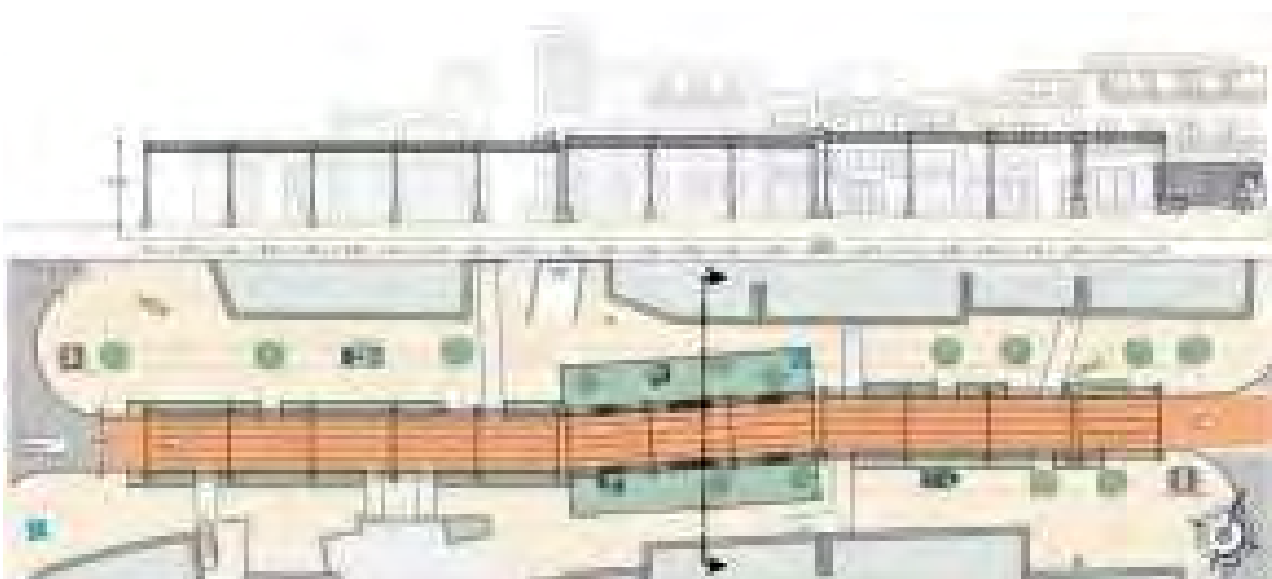
Other, important, parameters have been examined, such as: the shading effect, the vegetation effect, the effect of ground surface materials, the effect of water compared to soil humidity, the outdoor comfort (depending on many factors including adaptation and psychological parameters).
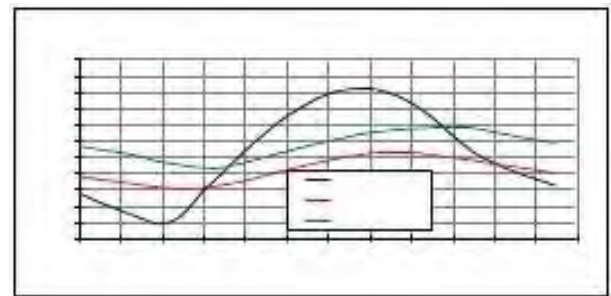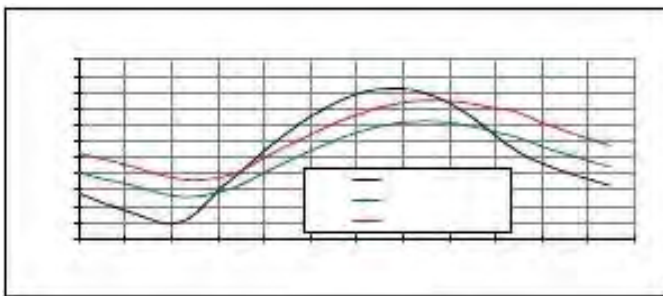
The comparison of simulation results with onsite measurements revealed a relatively good agreement between surface temperatures but underestimated daily fluctuation of air temperatures.

The simulation results, for the different parameters tested, have shown that shading, by vegetation or

overhangs and galleries, seems efficient in reducing surface and radiant temperatures in the open space and improving comfort conditions in the summer, with the addition of trees being the most effective measure.

However, according to the simulation predictions, the effect of "cool" pavement materials does not seem adequate in providing comfortable conditions, if not shaded. Even the much cooler surfaces, of water and wet soil, do not seem to compensate for the strong effect of solar radiation in the summer. Moreover, despite their cooler surfaces, highly reflective materials, exposed to the sun, seem to cause greater discomfort due to the high radiant temperatures (added to the well-known disadvantage of glare) by the increased reflected solar radiation. The predicted MRT values may be higher than realistic due to overestimated incident solar radiation.

The predicted air temperatures profiles show negligible effects of the tested parameters, and a homogeneous distribution in the open space. The permeable nature of the street and unobstructed airflow could be considered, as an influencing factor.

However, given the underestimated daily fluctuation by the software calculations, additional monitoring data of urban areas is required, for comparison and further evaluation.

Further research with on-site monitoring of open urban spaces in Thessaloniki, is currently taking place in order to compare real scale effects of the different parameters in the urban microclimate.

3.2. Katsantonis Park and perimeter roads

The project concerns the redesign of Katsantonis Park and perimeter roads and also interventions to existing buildings that house services of Municipality of Eleftherio-Kordelio: welfare (Centre for Creative Children Occupation) and offices (Thematic Broadband Youth Park). The size of the intervention area is 13.000 sq. m. and the buildings 168 sq. m. (C.C.C.O.) and 500 sq. m. (T.B.Y.P.).

The aim is to upgrade, through a model for urban rehabilitation - environmental and bioclimatic design, buildings and open spaces - with ecological awareness and community mobilization and specific goals:
- saving energy and recycling
- application of Renewable Energy Sources
- thermal, visual, acoustic comfort of buildings and open spaces
- public awareness on environmental issues
Three studies were prepared:
- Architectural design (buildings),
- Landscape design (open spaces)
- Energy study (total: park, perimeter road and buildings), including analysis, surveying, investigation of alternative solutions and simulations with special software.

The Architectural design concerns mainly the building shells. Aiming at reducing energy consumption and improving quality of life (natural lighting, ventilation, thermal comfort and microclimate), the design includes:
- Addition of external insulation to building T.B.Y.P.
- Creation of mass walls in building C.C.C.O.
- Thermal insulation of shell and special reflective materials (cool materials) in both buildings
- Alteration of existing openings or creation of new ones (in both buildings)
- Replacement of building elements (T.B.Y.P. dome) and creation of canopies in order to control heat gain (in both buildings)
- Replacement of all window frames and glazing with new ones of low-e technology and appropriate U values (in both buildings)
- Construction of effective sun protection devices (in both buildings)
- Construction of an external screen in selected areas and in short distance from the façades, in order to control lighting and cooling.
Landscape design concerns redesigning of the open spaces, taking into account existing uses, pedestrian and vehicular traffic and accesses. Existing compatible elements were preserved and new ones were introduced, according to the concept of intervention: thematic arrangement, redesign of playground and water route, parking areas etc.
Thermal behaviour simulations were performed with special software based on accurate climatic data of the region, leading to:
- Location of activities based on the microclimate - Planting of a variety of plants aiming at thermal comfort - Shading, wind redirection and protection devices - Selection of suitable floor materials, building elements and urban equipment
- Introduction of new technologies (recycling, renewable energy sources)

The coordinated proposals of Bioclimatic design and Energy study lead to significant improvements. Concerning the buildings, the interventions are targeted according to specific requirements.

In building T.B.Y.P. focus on the cooling period and achieve 25% energy shaving in cooling/ heating, while significantly improve the natural lighting. In building C.C.C.O. originally designed as showroom-workshops and completely unsuitable for the current use (children care), the first priority was the achievement of visual comfort and ventilation, sectors where the study focused.

The relatively small (-1%) reduction in energy consumption is actually a significant improvement, given the building shell adjustment to the specific requirements of the new use, such as daylight, which increased 100%.

All results are fully satisfactory considering the limited interventions - only to the shell - in existing buildings.

Concerning the open space, the results are impressive, with improvement of thermal comfort index (PMV) up to 50-100% (depending on season), temperature differences up to 2°C (refers to reduction only in summer) and optimization of wind protection conditions, with clear improvement of the microclimate in all seasons.

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Use of public space in Baltic countries and climate aspects

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ABSTRACT. The importance of public space has become a paradigm in the research field of urbanism. The sufficiency and quality of green public spaces in urban districts is considered as very important for social life, city liveability, public well being, tourism development etc (e.g. Ciesura 2004, Vanolo 2008). From the other hand, it is important to not only speak about the presence or absence of quality in public space, but furthermore about the local specifics and needs, which may define the quality criteria of public space for each particular case.

Such criteria might include the fitting of public space design to the climatic conditions of the region, where it is located. The public space use in Baltic countries in its conventional way is limited in many cases (e.g. picnics, open-air cafeterias, long-time stay) to 5-7 months in the year due to the harsh winter conditions. But, in contrast to many Southern- and Central-European countries the variation in public space use in different seasons is very manifold.

The climatic aspect is a limiting factor for the public space design from one hand, but from the other, indeed, is a factor, which may enhance the variety of different public space use types within the seasons. This means also, that the climatic aspect should have an impact on the public space design methods. The areas, used in one or in the other way, depending on air temperature, wind conditions, sun exposure, amount of snow etc. should dispose flexible design, enabling to transform the place according to particular seasonal or even temporary needs.

This presentation will reflect on how different seasonal and temporary public space use types occur in the existing public spaces and what is locally required in public space design in order to make a place as suitable for different use types as possible in Northern climate conditions.

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Theme 4:
ROJM EXtended

Workshop at Sint-Lucas
INT MA Students I, II

As students from the International Master in Advanced Architecture Design and Sustainability of LUCA School of Arts (Sint-Lucas Architectuur), we had the opportunity to take part into a workshop that lead up to the ASPIS conference on design, participation, sustainability and ICT. We have been working for a whole week preparing presentations for the conference. This way we got involved in divers aspects of the conference: content wise and logistics such as ICT, reporting, hosting and editing the proceedings.
This conference offers an opportunity to link our Design Studio work (ROJM EXtended) with the ASPIS international conference.
We worked in different teams, mixing students from four different design studios. The goal of making a conference presentation not on a specific design, but on some underlying principles or strategies made us consider specific aspects of design and communication.

A first team worked on different ways of explaining the Design Studio project. They explain it as raising the question of how as an architect, we can use / design visual connections within the built environment to enhance social interactions.
The second team mentions that there is more than one way to achieve sustainability. Considering the site, program and context of the design studio in Mechelen, three core-issues rise out of this broad spectrum. The emphasis for this specific design finds its origin in social, economical and ecological sustainability.
The third team shows what they have learned in this design studio, through working on a real project with real stakeholders, can be applied to real life. Applying what they have learned in the Design Studio (social sustainability, universal design, teamwork) has informed their design process not just for this but also for future real-life projects, helping them to think in a different way to produce designs that are more socially, environmentally and economically sustainable.
The fourth group was responsible for the editing and the proceedings. Their work resulted in the book of the ASPIS international conference 2012.

For us this conference is an exceptional opportunity to put our own design and design theories to the test and run them by current theory on sustainability and practice on an international scale. Hopefully this conference will be transmutable into an input for our design studio.

Theme 5:
ICT Learning / Participative Tools

The potentials of affordable Geoweb 2.0 applications to support the deliberation of urban projects

Burak Pak and Johan Verbeke

ABSTRACT. In this paper, we discuss the potentials of affordable Geoweb 2.0 applications to support the deliberation of urban projects. We first introduce the conceptual design of a web- based geographic virtual environment specifically developed for the Brussels Capital Region in the framework of a long-term postdoctoral research project. Then, we present two alternative open-source prototypes for the implementation of this conceptual design and compare their usability with experts. Furthermore, we share our experiences from two field applications in the form of a brief case study and discuss the potentials of the proposed prototypes with a focus on their usability and supported forms of design empowerment.

1. Introduction

This paper provides a brief overview of our research efforts between 2009 and 2012 which were supported by the Brussels Institute for the Encouragement of Scientific Research. During this period, we focused on the design and development of a web based geographic environment for the deliberation of the existing alternative urban development projects prepared for Brussels.

The motivations for our study were:

- ***The need for integrated planning environments for deliberation and participation due to the problematic urban situation in Brussels:*** During the last century, a combination of urban policies caused the destruction of architectural heritage and the nature of the city with a compromising collaboration of the public sector (also known as Brusselization)(Lagrou, 2003). This trauma created a protectionist attitude among the citizens and strangled large scale developments.

- ***Potentials of alternative urban development projects as a reflective resource:*** Alternative urban development projects (AUDPs) simultaneously cover representations of the existing urban environment and imaginations of different realities. Thus they provide different frameworks for the discussion of the contemporary situation of the urban context (Pak and Kuhk 2009).

- ***Potentials of Web 2.0:*** Web 2.0-based geographic technologies (Geoweb 2.0) stand as strong alternatives to the traditional, linear and hierarchical knowledge production methods. They are well positioned as a medium for facilitating dialogue and learning as well as communicative action (Roche et al. 2012) (Hudson-Smith et al. 2009).

Based on the motivations above, we directed our efforts towards developing and testing Geoweb 2.0 environments. We started our research with an in-

depth review of the alternative approaches, AUDPs and technological applications developed around the world. Based on this analysis, we created a conceptual design. Then, we implemented two Geoweb 2.0 prototypes and rated their usability and fitness-for purpose with experts and non-governmental environment organizations. Since it's impossible to include all of these in this paper, we will specifically focus on the following questions:

- Can affordable Geoweb 2.0 applications contribute to the creation and deliberation of urban projects?
- If they can support, to what extent?

In this context, we will start our paper by situating our efforts within a bigger frame and relate them to the existing literature (**Section 2**). Afterwards, we will share the conceptual design of our web-based geographic virtual environment (**Section 3**). Next, we will present two alternative Geoweb 2.0 prototypes as alternative affordable technological frameworks for the implementation of the conceptual design (**Section 4**). This section will also include the results of the usability evaluations of these prototypes.

In the next part of our study, we are going to share our experiences from our preliminary field tests in the form of a case study (**Sections 5-6**). In conclusion (**Section 7**), we will provide an overview of our findings and draw up future prospects.

2. Situating Participation and Geoweb 2.0 in a Bigger Context

Urban planning and design are complex processes in which the decision makers are not often fully knowledgeable about the range of factors involved as well as the implications of their decisions (Simao et al. 2009). Therefore, it is necessary to promote **participation** and **mutual learning** in these practices; which require constructive conversation and co-production (van der Veen and Altes 2011).

A significant number of studies have been dedicated to these topics, especially, **public participation**. Among those, the most well-known classic is "the ladder of citizen participation" by Arnstein (1969). In her study, she identified eight participation levels through the lens of citizen power: *manipulation, therapy, informing, consultation, placation, partnership, delegated power and citizen control*.

Connor (1988), Dorcey et al. (1994), Rocha (1997) have proposed their updated versions of the participation ladder, each focusing on slightly different aspects. Conner (1988)'s point of view was oriented more towards *conflict resolution* whereas Dorcey et al. (1994) proposed *ongoing involvement* and *consensus building* as the highest level of participation. Rocha (1997) placed *political empowerment* at the top and *atomic empowerment* at the bottom of her version of the participation ladder.

Overall, starting with Arnstein's ladder proposed in the spirit of 1968, it is possible to track **a shift in the understanding of participation; towards democratization and greater empowerment and involvement of citizens**.

This shift is, of course, closely related to the theoretical shift or the "communicative turn" from rational planning to communicative and deliberative planning.

Senbel and Church (2011), in a relatively new study, stressed the importance of design empowerment and proposed a more "enabling" version of Arnstein's ladder. They proposed six "instances" of **design empowerment**: information, inspiration, ideation, inclusion, integration and independence. The highest level of empowerment is independent design, when residents gain the capacity to create their own plans and visions thus reach autonomy. This is followed by integration, which involves the coproduction of plans and proposals. Inclusion of the ideas and thoughts of the participants among other priorities, ideation (ability to generate and express ideas) about the future, and inspiration triggering response to an alternative and informing are the relatively lower instances of design empowerment.

In this study, we will use Senbel and Church's (2011) design empowerment as the key concept for discussing the supported participation levels.

Neogeography and WikiGIS

From the perspective of geospatial participatory technologies, it is possible to track similar layers of transformation regarding the production and dissemination of geographic information. From top-down to bottom-up, referring to the public participation GIS (PPGIS), from "requested production" to "voluntary production" - geocrowdsourcing and finally, towards the wikification of GIS and Geoweb 2.0 technologies (also called neogeography) (Roche et. al., 2012).

Relying on a combination of social software and information aggregation services, Geoweb 2.0 technologies stand as a strong alternative to the traditional linear and hierarchical knowledge production methods. They are loaded with constructivist learning and production principles embedded in the ways they enable social knowledge construction. In this sense, they are well-positioned to act as a medium for facilitating dialogue and learning as well as communicative action.

Preliminary examples of these kinds of initiatives are the **Copenhagen Municipality's "indrebylokaludval" web application, "aloitekanava" by City of Turku, "Bristol rising" by the Bristol City, "civic crowd" sponsored by the British Design Council,** "**Change by Us**" by the cities of New York and Philadelphia, **"Spacehive"** by multiple actors in London, **"Lighter Quicker Cheaper"** in San Antonio City, **"mycitylab" in Brussels, "Fix My Street" in Dublin, "Neighborland**", **"SeeClickFix", "Openplans"** (covering multiple cities) and by the companies with the same names which are both used for the collection of the ideas from citizens

The real power of Geoweb 2.0 emerges when it is utilized for the inclusion of knowledge acquired through lived experience; which had been granted less legitimacy in the past (Elwood 2006). Through technologies such as WikiGIS, alternative maps can be created by the public in an asynchronous and

distributed manner to represent abstract forces shaping urban life; urban dynamics which are not usually accessible to designers and planning authorities (Amoroso 2010). By this way, multiple perspectives of social groups can be dynamically represented and (re)constructed. Therefore, Geoweb 2.0 is more than just a repository of maps, images and text. It is a strong and sustainable empowering mechanism, which invites people to decide on their future and reflect their individual point of views.

In this context, we have directed our research efforts towards the empowerment of the related actors by promoting the coproduction of plans and projects through alternative Geoweb 2.0 environments.

In the next section, we are going to introduce our ideations of a web-based geographic virtual environment specifically tailored for analysis and evaluation of AUDPs for Brussels. By our conceptual design, we intend to support multiple levels of design empowerment (Senbel and Church, 2011) such as independent design, integration, inclusion as well as informing.

3. The Use Scenario and the Conceptual Design

During the development of our conceptual design, we have arranged various focus group meetings with the Brussels Development Agency (ATO), Environment Council (BRAL) and the Center for Informatics (CIRB). Together with these institutions we have developed a use scenario considering the context provided in Section 2 and their specific needs.

In this scenario, the web-based environment is situated as an interface through which civil society and professionals can learn, exchange ideas and shape the future strategies. Besides containing AUDPs, this interface facilitates communication by allowing professionals to publish information on their development projects in a multimodal format. By this way, it encourages the civil society to discuss, create ideas and give feedback in reflective manner (Figure 1).

Learn
Retrieve
3D Models
2D Maps
Images,
Text
Descriptions,
Schedules
Files
in multiple
formats

Geoweb 2.0 Environment
Information base and communication medium

Functionalities
2D Mapping
3D Visualization
Text Editor
Timeline Tool
Forum
Search
Report

Share Information
Publish
3D Models
2D Maps
Images,
Text
Descriptions,
Schedules
File Uploads
in Multiple
formats

Civil Society

Profes-sionals

Discuss, Give Feedback, Reflect New Ideas
Comment on a subject, 3d model, 2d map, geolocation, time schedule, files
Create areas on maps to discuss projects and give feedback
Answer Questionnaires

Learn and Reflect
Receive Comments on a subject, 3d model, 2d map, a geolocation, time schedule and files
Create areas on maps to discuss projects
Receive Answers to Questionnaires

Figure 1. The primary use scenario, actions and functions: reflection-in-action

In parallel with the scenario development process, we have also made an in-depth analysis of AUDPs prepared for Brussels to determine their characteristics and collect the types of information they contain. The results of the analysis showed that urban development projects include:
- Textual information (i.e. objectives, definitions and decisions)
- Two dimensional design data (i.e. maps, plans, schemes and photos)
- Physical and virtual 3D models (three-dimensional data)
- Temporal information (i.e. schedules and timelines)
- Location-based information (in the form of addresses)

Considering these observations, the use scenario and the feedback of the institutional actors (including a requirements analysis questionnaire) we have developed a conceptual design. This design is as a web application hybrid; "a mashup" based on a combination of different representations and organized in two parts (Figure 2).

Figure 2. The interface of the proposed web-based geographic virtual environment

The interface on the left offers a 3/4D visualization window and an integrated time-based map, specifically addressing the geographic location. The built-in timeline below enables virtual time travel. The change of the environment in time can be observed through a variety of aerial photos and user-created/existing 3D models (when applicable). In this sense, the design can be considered as an open and developable 4D GIS interface.

The interface on the right foresees an interactive concept map and a hypertext window that serves textual data and images with search functionality. Concept maps are utilized to represent the conceptual attributes of AUDPs, revealing the complex relationships between different topics, or tags defined by the users. Tagging function supports bottom-up collaborative ontology building and establishing semantic relations between notions, which allows user-based interpretation of heterogeneous information. A text window with search capability is also available for the retrieval and visualization of long texts, such as strategic plans.

3.1 Two Affordable Geoweb 2.0 Prototypes for Preliminary Testing

As stressed in Section 1, for preliminary testing purposes, we have created two prototypes (P1 and P2) supporting the functions described in the conceptual design phase.

Both of the prototypes employ the Google Earth/Maps Application Interface (API) as their primary visualization medium. The reason for this choice was that -at the time of development- Google provided high-resolution aerial imagery and 3D city models to an unrivalled extent; also beyond the borders of Brussels.

Another rationale for relying on the Google API was the possibility of involving time as an extra dimension of representation and analysis.

Furthermore, using Google Maps/Earth API, it is possible to divide a large body of text into individual place-based strategies and geolocate them on a map as interrelated place marks with explanations (Figure 3, on the next page). As most of the information related to the AUDPs is location-specific, geolocation can serve as the key integration tool for representation and discussion of the projects, including uniquely text based plans.
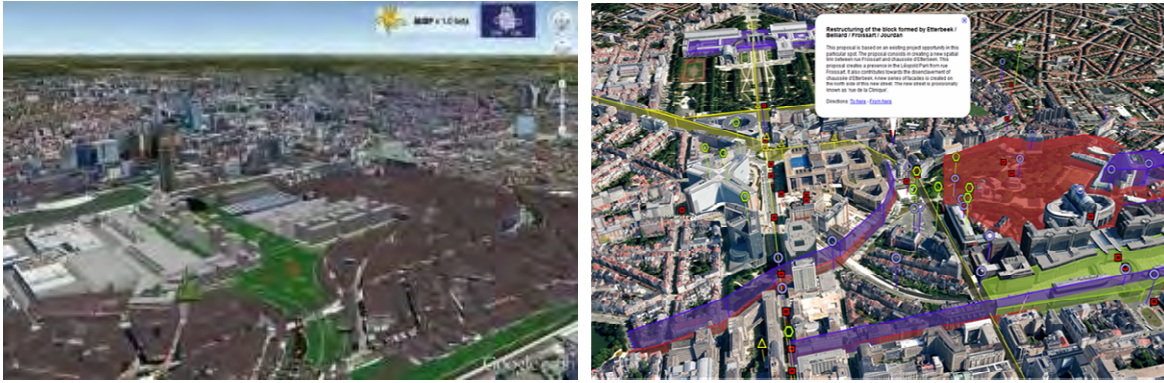
Figure 3. The Geolocated representations of the Master Plans for Tour and Taxis (on the left and the EU Quarter (Ombudsplanmediater)(on the right)

Geoweb 2.0 Prototype P1 (2009)

In this setup, the MediaWiki application is used a backbone for content management. It was preferred because it uses an extensible lightweight wiki markup language and contains a variety of functionalities including rich content, an editing interface, search function, media library and an application-programming interface. The system and the modules are based on free and open source software (except Google API).
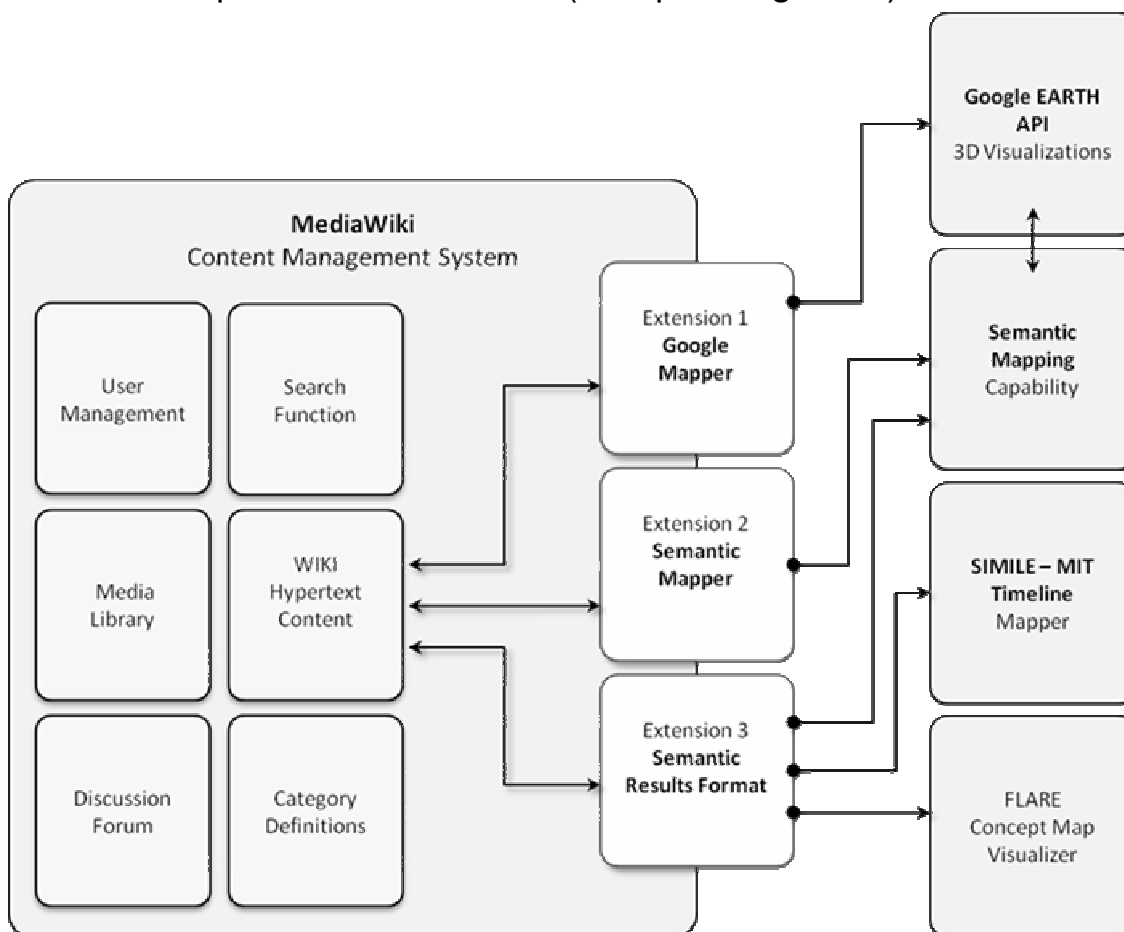
Figure 4. Schematic Description of the Geoweb 2.0 Prototype P1 (Pak and Verbeke, 2012-forthcoming)

GoogleAPI has been embedded in this system via "Google MediaWiki Extension" developed by Evan Miller (2009) whereas Google Earth API has

been included via JavaScript.

Semantic mapping functionality has been made available through "Semantic Maps Extension" developed by de Dauw et al. (2009).

The timelines and concept maps have been connected to related "SIMILE" and "FLARE" visualization libraries by Semantic Results Formats extension by Dengler et al. (2010). As an initial study, the proposed prototype has been tested in the Tour and Taxis and EU Quarter zones (Figure 5).
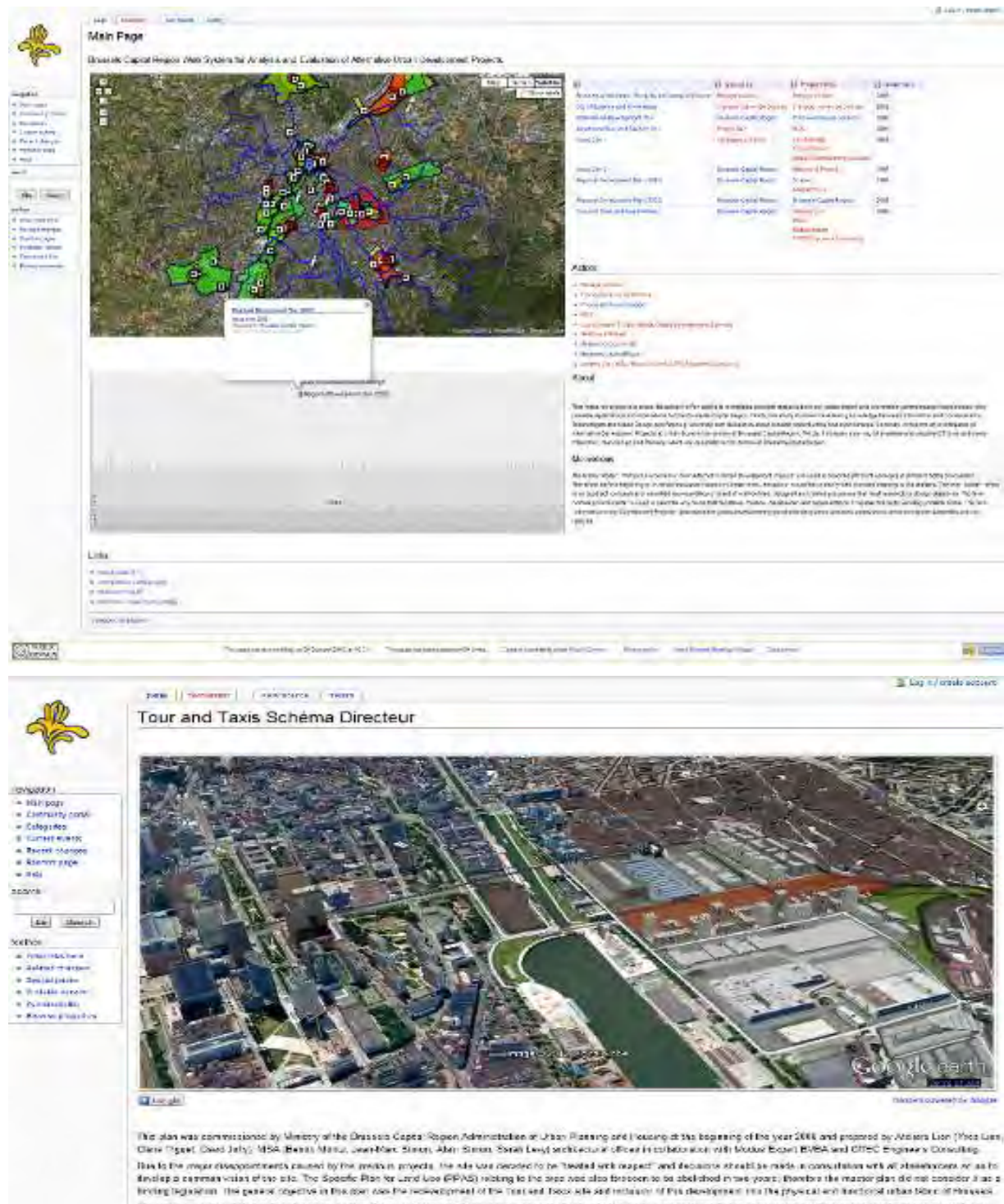
Figure 5. Preliminary implementation of prototype P1

Geoweb 2.0 Prototype P2 (2011)
Prototype P2 is based on more than twenty open-source content management modules and other custom applications (Figure 6). Openlayers serves as the key library and the content management module for creating location based information as well as complex geocoding and visualization. It provides the ability to connect to any mapping API available, including Google Maps, Bing Maps and OpenstreetMaps.
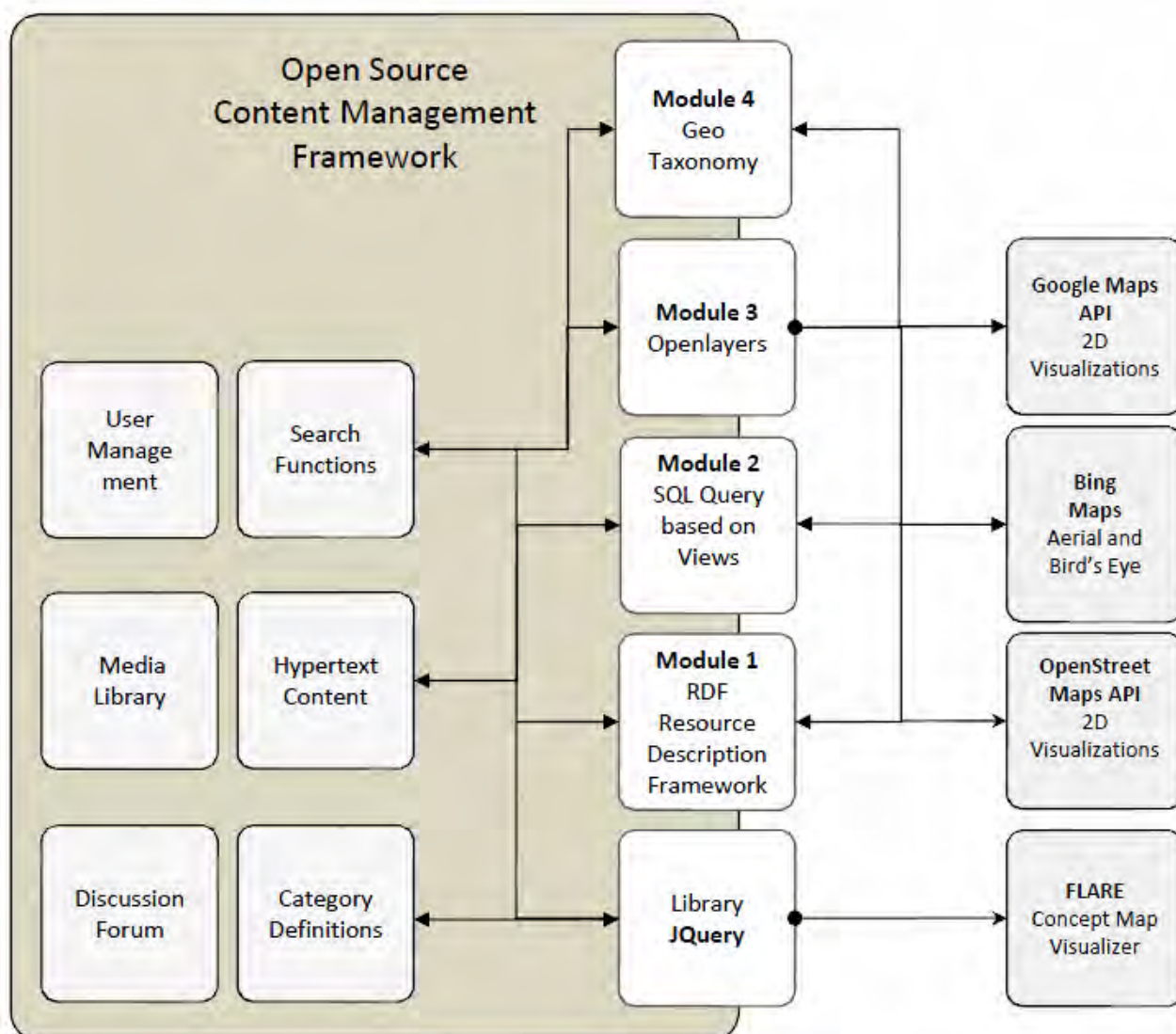
Figure 6. Schematic Description of the Geoweb 2.0 Prototype P2

In this setup, jQuery and its user interface (UI) library provide abstractions for low-level interactions as well as advanced effects and themeable widgets. Geotaxonomy is used to attach geo information (latitude, longitude, bounding boxes, etc.) to taxonomy terms. Similar to the first prototype, Flare library has been integrated into the system, this time through jQuery.

4. Testing the Usability of the Prototypes 1 and 2 (Diagnostic Evaluation)
Before testing the prototypes on the field, we wanted to evaluate their usability. With this purpose, we have conducted tests on six experts who

actively work in the planning field. The first prototype (P1) has been tested in 2010 and these results have been considered during the design and implementation phases of the second prototype in 2011.

In both of these tests, we chose to follow the diagnostic usability evaluation method that has been offered by the UsabilityNET (2010) to identify usability problems and gain an understanding of the difficulties that users face. In this context, we have chosen the following quality measures and metrics (which also relate to ISO/IEC 25062 (2006)):

- Unassisted Task Effectiveness
- Number of User Errors
- Number of System Errors
- Number of Assists

Afterwards, we defined a task scenario and asked from the participants to perform 14 tasks that represent basic interactions related to the task scenario. These included basic tasks like login and search, retrieve an AUDP topic, edit and format it, add a map to the discussion, add a placemark and mark an area on the map, place multiple maps on top of each other and logout.

	Total Task Completion Time		Task Accomplishment Rate		User Errors		System Errors		Help Requests	
	P 1	P 2	P 1	P 2	P 1	P 2	P 1	P 2	P 1	P 2
Participant 01	9' 05"	5' 30"	85.71%	100%	2	0	1	1	3	2
Participant 02	10' 27"	4' 55"	100%	100%	1	1	1	1	0	1
Participant 03	12' 34"	5' 38"	100%	100%	2	0	1	1	4	1
Participant 04	14' 21"	7' 53"	100%	100%	2	0	2	1	2	5
Participant 05	9' 53"	3' 41"	100%	100%	1	0	1	1	0	1
Participant 06	15' 41"	8' 26"	100%	100%	5	0	1	1	5	1
Averages	**12' 16"**	**6'01"**	**97.61%**	**100%**	**2.17**	**0.16**	**1.16**	**1**	**2.33**	**1.83**

Table 1. Observation results for the task scenario for Prototypes P1 and P2

According to the analysis results, using the first prototype (P1), five out of six participants successfully completed all of the tasks; which led to an average task accomplishment rate of 97.61 percent. An average of 1.16 user errors was observed for each task set. In this test, a majority of the errors was made during the execution of two specific tasks: import a map and place multiple maps on top of each other. Copying and pasting map codes were difficult for the users. This problem significantly contributed to the average number of help requests made by the users (2.33) and the average task completion time (12 minutes 16 seconds).

During the Prototype P2 testing, all of the participants successfully

completed the tasks. The average number of user errors was 0.16; significantly lower than the average of the P1 tests. In line with this observation, the average number of help requests (1.83) and average task completion time (6 minutes 1 second) were lower than the first (P1) test.

In both of the usability tests, at least one system error was detected. These were invisible to the users (they did not lead to a freeze, crash or denial of service) but they should have had a negative effect on the task completion times.

After the task observations, the participants were given an After-Scenario Questionnaire (ASQ). In this survey, the participants were asked three questions related to ease of completion, time spent to complete the tasks, overall support information.

In Prototype P1 testing, that the participants' overall satisfaction with the ease of completion was 62 percent. They were 69 percent satisfied with the time they spent to complete the tasks. For Prototype P2, these rates were slightly higher; satisfaction with the ease of completion was 79 percent, satisfaction with time spent was 73 percent.

Besides the usability tests briefly reported above, we have evaluated the prototypes in real life scenarios. In the next section, we will present the results of two field applications in which Prototype P1 and P2 were tested with the contributions of the Brussels Environment Council and Green Belgium Organization.

5. Field Testing Prototype P1: the Brussels Environment Council - Green Network Planning

This study was specifically initiated for testing the potentials of prototype 1 as a medium for collaborative analysis and planning. The Brussels Environment Council (BRAL) used this prototype to develop an extended (unofficial and alternative) version of the Brussels Green Network Plan.

In February 2011, a specific server has been setup and the web application has been made available to the relevant actors. The BRAL team, consisting of six experts, had specific requests for mapping. They wanted to be able to use previously created plans, such as the land use plan, the biological evaluation map and the older green network plan as a layer to work on which can be turned on and off. Moreover, they demanded to be able to observe their own plans on the older plans and combine them together as they wish.

The default open source prototype and the Google Mapper extension –in their original form– did not include this functionality so we had to develop custom applications and modify the extension to enable layering and create an "input-output" flow mechanism. In the modified version, when a user creates a map and saves it, it is possible to visualize it on any page using the import and export workflow (Figure 7). This system operates as a geo-RSS feed engine and allows the dynamic representation of user maps. This means that the exported maps can be imported and organized into layers.

Figure 7. Field Testing Prototype 1: BRAL Green Networks Application.

One of the most interesting aspects of this study was the inclusion of crowdsourced information into the planning process. Specific maps created by gardeners have been made available and used as a basis to discuss the planning of future green networks.   As a result of three months of collaborative work, a collective map was created (Figure 8). Two alternative views of the study were exported in both ArcGIS and raster image formats, which can be published one meter high and one meter wide.

At the end of May 2011, the final plan was presented and handed over to the Environmental Management Institute study office responsible for the preparation of the green networks section of the sustainable regional development plan. In this context, the knowledge that has been created through Prototype P1 was officially transferred to planning authorities. This case can be considered as a simple "independent design" example (level 6) in the design empowerment scale of Senbel and Church (2011).

Figure 8. The final Green Networks Plan overlaid on the green layer of the land use plan including the crowdsourced data.

6. Field Testing Prototype 2: Analysis and Discussion of the Green Areas with the Green Belgium Environmental Organization

This initiative was taken in January 2012 together with the Green Belgium Organization which manages an educational network of 20.000 youngsters are members of environment related "clubs".

In this study, Prototype P2 has been used as an instrument of dialogue between the youth movement of Brussels and green area managers. Establishing such a dialogue was essential because of the age and power differences between the related parties. In this setup, youngsters in Brussels are invited to represent their opinions and ideas using maps (geotags and polygonal zones), images and text. Moreover, the managers of green spaces (including the park wardens and gardeners) also express their ideas and the problems they face in a similar format. These two participants can monitor what others think and write their own review.

Due to the incredible variety of user profiles, the communication is simplified and channeled towards three major lines: favorite places, dreams and improvements. In this sense, the scope and content of the user contributions are focused on specific aspects: dreams, favorite places and problems. All types of content are aggregated and overlaid together on the main page (Figure 5). On the map, individual categories are represented as special icons and clustered when needed to promote ease of use.

An important quality is the multi-lingual nature of the contributions, which have intentionally been harvested together to encourage the communication between French-speaking and Dutch-speaking youngsters as well as managers.

Figure 9. Field testing Prototype 2: Green Belgium Jeunes Natuurlijk! Study.

Using Prototype P2, it was possible to dynamically generate maps through an import/export flow mechanism provided as default with the openlayers library. By this way, it was possible to create easy to understand thematic maps such as "dream maps", "favorite maps" and "problem/improvement maps". These dynamic maps are seen by the Green Belgium organization as a basis for establishing a sustainable reflective dialogue between youngsters and managers. Overall, this case relates to the "information, inspiration, ideation, and inclusion" (Levels 1-4) in the design empowerment scale of Senbel and Church (2011). It is still in progress and we will reveal more details and findings during the conference presentation.

7. Conclusions and Future Directions

In this study, we have introduced a conceptual design for a web-based geographic virtual environment and presented two alternative Geoweb 2.0 prototypes as alternative affordable technological frameworks for its implementation. Furthermore, we have shared the results of usability tests for each prototype and experiences from two field applications in the form of a case study.

These two cases were different in terms of the user profiles, pre-designated contribution types, and consequently, the level of design empowerment (Table 2). In the first case, Prototype P1 was used by the NGO BRAL for the analysis and planning of Green Networks. This study illustrates a type of participation in which experts from an NGO collaboratively develop a serious plan considering the informal maps created by gardeners and various official plans. The final product was a serious and independently produced plan which included analysis results and specified zones.

	Case Study Prototype 1 BRAL / Green Networks	Case Study Prototype 2 Green Belgium
User Profiles	Experts Planners working for an NGO	Youngsters and City Managers
User Contribution	Analysis, Zoning and Alternative plan development	Ideas, Problem Consultation and Preferences
Participation/ Design Empowerment	Independent design (Level 6)	Information, Inspiration, Ideation, Inclusion (Levels 1-4)

Table 2 Comparison of two field applications

In Case 2, we have tested the Prototype P2 with the Green Belgium Organization. This field study was based on a different participation strategy. The users were neither designers, nor planners. Their contributions were in the form of ideas, problems and/or preferences. These were intended to be used to improve the quality of management and policy-making through information, inspiration and inclusion as well as for monitoring the effects of plans/policies.

Overall, in terms of functionality, both of the prototypes allowed customized communication, adjustment of access rules and communication levels to the user profile. On the other hand, the prototypes were found to be significantly different in terms of usability, Prototype 2 being far more usable (Section 4).

Using Prototype P1, the experts were able to complete an independent collaborative planning task. However, due to the lack of an efficient native what-you-see-is-what-you-get editing interface, the (relative) complexity of the Wiki platform and the integrated mapping interface, it was not efficient. For this reason, in its current form, Prototype 1 cannot be considered suitable to be used by lay-people in design empowerment levels which require relatively higher levels of interactivity such as of inspiration, ideation and inclusion.

Different than Prototype P1, P2 provided a highly compatible, customizable interface with rich mapping support. Therefore, it may be considered to be better fit-for-purpose in all design empowerment levels from information to independent design.

In conclusion, the two cases presented in our study can be seen as preliminary examples of giving a voice to non-governmental organizations, acceptance of user created data as a valid resource and its inclusion in the planning practices. The proposed prototypes successfully supported the subsequent communicative processes and the initial outcomes conformed to the intentions of our studies.

In the future, considering the multimodal nature of the planning processes, creating a new framework for combining face-to-face activities with computer-mediated activities to form an integrated planning process may significantly improve similar practices. Overall, the ultimate success indicator for similar future Geoweb 2.0 applications will be the extent to which the plans and messages of the participants are taken on board by the authorities.

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Re-using Serious Games by encapsulating them in Learning Objects

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ABSTRACT. The use of games within educational contexts has been gaining in popularity. There is evidence in literature that the use of games in certain contexts can increase learning outcomes compared to traditional learning materials. These "serious" games have been used in different fields of study for training purposes, for example in sustainability, cultural heritage, healthcare, disaster management, general education. Most of these games have been developed as standalone games. This requires a teacher to take undertake activities to blend them into the learning environment. Learning Management Systems are web-based e-learning systems for the delivery of educational content currently in use by many institutes and universities across the world. An increasing area of research is how the systems can support the delivery of a blended approach to learning and adaptive systems focusing on adaptivity and personalization as well as systems focusing more on delivering established pedagogies such as IMS-Learning design have been developed and integrated into LMSs. Research of e-learning systems has also lead to a number of different standards such as ADL-SCORM for sharing courses among systems and IEEE LOM for sharing content in reusable packages, so called learning objects. Despite their potential, most well-established e-learning systems and standards were not designed for integration with serious games. Hence consideration of how this integration could be achieved could allow improvement of the whole learning process, stimulating and motivating the learner through integrated game-based elements or content, whilst taking advantage of established techniques via traditional e-learning materials. This integration could also increase the potential to reuse of serious games or parts of games, allowing content repurposing methods to be applied to Serious Games within modern LMSs. This presentation will review emerging trends in serious games repurposing, and show how describing games as learning objects can significantly evolve the state of the art in game-based learning approaches.

Games-based learning in planning: training programs for professionals and students

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ABSTRACT. Rapid democratization of physical urban environment combined with increasingly easy access to all kinds of information is transforming the historically established relationship forms between the public and the private. The result is the appearance of new, socially, economically and semantically still instable types of urban spaces. This fact requires new skills and shared language for professionals who are dealing with spatial production. This paper is mostly drawn from the initiative of a multidisciplinary team of practitioners in planning, architecture, landscape architecture, transport engineering and academics. The Project RADI RIGU!. a number of innovative workshops undertaken in 2011 – 2012, actualizes the role of urban public spaces in social revitalization processes and shows the communicative character of the urban project as a process. Its aim is to plant the idea of spatial strategic planning and elaborate new, more communicative tools as well as an "emotionally rich language" (Sandercock, 2001) for planners. Finally, it verifies in practice an integrative educational form of lifelong learning for practitioners and academic education for future professionals in planning. The methodology elaborated during the Program is inspired by a series of workshops on public space at the Belgian coast (Schreurs, 2007) and is based on the reconstruction of "talka", the popular form of voluntary work in the USSR. It uses the role-playing game approach – EAR (educate, act, realize), where the students are invited to participate in a "real life" of temporary planning laboratory. An atmosphere of a "planning office" is created by using various techniques: briefings, open cafes, elevator game, open space technology, World Cafe for discussions and brainstorming; social diving, ethnographic investigations for the exploring the case territories, actual tasks formulated by the municipality/community and practical value of the outcome of the learning process.

The paper uses the following courses as case studies: the program "CREATE RIGA!", the course for the students of Master program in spatial planning by Latvian University, faculty of Geography and Earth sciences, as well as planned training international program between Flanders and Latvia, and planning studio within MaUSP program at

KULeuven. Analyzing aforementioned examples, the authors undertakes attempt to show:
- the relevance of the integrative approach to professional education in the planning realm;
- the benefits from gaining experience through learning the processes of urban project from preparation and project definition to project management, maintenance and governance, interwoven in the design and participation process;
- the importance of tying together practical work and theoretical knowledge in the process of planning education for both - "real life" and learning process;
- the efficiency of applying the interactive approach of the role-playing game to planning education, which reflects the communicative nature of planning and design.

The methodology has a resilient character. It complies with a planning cycle which analyzes an existing situation, develops a vision about a better future, implies transformations and evaluates these in the light of a next cycle (Schreurs, J., Moulaert, F. 2012) and marks a shift towards ecological approach to planning education.

KEY WORDS. game based learning (GBL), spatial co-production, spatial quality, participatory design, public spaces, lifelong learning,

1. The Field and the Lab

Metaphors of Field and Laboratory highlight the dichotomy between realities of changing urban environment and academia as a workplace for researching, observing and approaching these changes. Both, the Field and the Lab, nowadays are facing the challenge of finding more communicative tools as well as an "emotionally rich language" (Sandercock, 2001) available for all involved in urban co-production.

The Field.

Continuously increasing spatially social complexity of contemporary human environment, combined with accelerating speed of urban changes, dictate the necessity to revise the tools and methodologies which were elaborated last Century in order to deal with urban space. Available today for practitioners' "toolbox" - complex of urban design and planning methodologies, instruments and approaches, as well as to urban space related policies - to the great extend are created from the belief (rooted in modernistic metaphor of city as a machine) of certain architects, planners and designers that space is a self-evident matter of design (cfr. Schreurs, Pluym, 2012). The everyday of urban development serving practitioners is structured (according to "machinery" design) as a socially exclusive process. That often brings the "end product", thought to facilitate urban development, into the situation of conflict and long-lasting opposition to the social and spatial dynamics. Another risk factor is compressed time of design

production, determined by the increasing speed of urbanization. It does not leave enough place for creative reflection and innovative experiment, as well as few possibilities for comprehending the urban metamorphoses and adjusting strategies and work instruments.

Mirroring the practice, professional education and research still focalize different dimensions of physical landscape, including from the second part of 20th century growing expertise in spatial cognition (cfr. D.R. Montello, 2005). Drawn in generally from architectural design theory, which was in 70-s -80s "recognized either as elitist because of its affinity with 'art', creativity and insistently claiming avant-gardist positions or as epistemologically robust and independent because of its autonomous "designerly ways of knowing" (Schreurs, Plyum, 2012), academia nowadays still forms an "autonomous" professional mentality. This mentality, incarnated in rather technical knowledge and skills (of spatial and architectural typology, morphology, structures of different scales and drawing based production), what young professionals try to apply in their early practice, share the same of the existing "toolbox" conflicting and reality confronting destiny. In this way, being ideologically fed by in physicality based and dynamics ignoring theory, urban research and education meet defeat of three kinds: they estrange themselves from "real world", lose their role as facilitator (producer) of innovations and leave in the "time shears" suffocated practice without ongoing changes reflecting theories and appropriate instruments.

Metaphorizing academia as a Laboratory, we believe, can help, firstly, to restore its position on urban stage as a workplace for observation, experimentation and innovations. Secondly, it can remove perception of Laboratory as closed, "practice-far", "scientific" *Ding an sich* by putting it in the heart of urban life. Thirdly, it can bring rapid changes in professional mental landscape, multiplying the effect and efficiency of innovations and experiment.

2. "Learning ecology" in practice

Well known today notion of "learning by doing" enriched by broadened notion of ecology, unfolds two mutual contiguity of "learning ecology" (cfr. Schreurs, Pluym, 2012). Twofold nature of participle enables the dual perception of "learning": as a process of gaining knowledge in ecology of urban environment and as an ecological approach to the process of professional education.

As "Ecolab" it reflects a planning cycle critically analyzing an existing situation, developing a vision for a better future, implying transformations and evaluating these in the light of a next cycle (Schreurs, J., Moulaert, F. 2012).

Complex, ever changing and often conflicting processes in the Field require "the skills and thought processes needed to respond appropriately under pressure, in a variety of situations" (Trybus, J.,2012)

Exercising resiliency of urban space asks from academia to develop appropriate for building resilient environments learning methodologies. The learning process, if it is built ecologically as a "*study of places of habitation*", becomes more effective, enjoyable and motivating when the models of habitation are rebuilt, like in a theatre, on the school stage. It pleas to add to the "classic" reflective teaching tools – lectures, seminars, homework etc. – the form of interaction, based on an act of impersonating. Playing a role might bring in a limited time (which is mostly the case in the teaching to the space production related professions) deeper understanding and feeling of space, if the space is considered as "complex clews that consist out of a patchwork of rapidly changing and potentially conflictive relations: relations between people, machines, money, images, objects, ideas, buildings, locations, ethnicities, streets, identities, goods" (cfr. Schreurs, Pluym, 2012).

The following writing will describe two cases, where principles of role games were applied: a program of continuous professional education (CPE) and an academic course for master students, accordingly: the program RADI RIGU! ("CREATE RIGA!"), a number of innovative workshops in urbanism, undertaken in 2011 – 2012 and the course for the students of the Master program in spatial planning by Latvian University, faculty of Geography and Earth sciences.

3. RIGU! – a new planning tool?

The intensive training programme RADI RĪGU! provided experience in all stages of planning and design, from project definition to project management for a multidisciplinary team of practitioners and students in the fields of planning, architecture, landscape architecture and transport engineering. The methodology elaborated during the Program is inspired by "PrakTijk", a series of workshops on public space at the Belgian coast (Schreurs, 2007) and is based on the reconstruction of "*talka*", the popular form of voluntary work in the USSR. It uses the role-playing game approach – EAR (educate, act, realize), where the students are invited to participate in a "real life" of temporary planning laboratory (cfr Gutmane, Schreurs, 2012). An atmosphere of a "planning office" is created by using various techniques: briefings, open cafes, elevator game, open space technology, World Cafe for discussions and brainstorming; social diving, ethnographic investigations for to explore the case's territories, actual tasks formulated by the municipality/community and practical value of the outcome of the learning process. The programme, spread over one year, consisted of 6 sessions of 3 days intensive training and a study visit to Antwerpen and Gent. High-level professional expertise was guaranteed by an international team of coaches from University of Leuven (prof. J. Schreurs and prof. J.Van den Broeck), Free University of Brussels (prof. M. Martens) and experts from Copenhagen (T. Saaby, City architect), Antwerpen (K.Borret, City-architect), Barcelona (J. Farrando, architect) and Moscow (A. Schtetinina, architect, leader of "Arhstojanije").

"Educate" principle

After an interactive analysis of their city (via mental mapping), participants were invited to choose five preferable neighbourhoods in which potential projects for re-generation should be selected, according to criteria, given by the coaches: strategic character of the neighbourhood, large involvement of inhabitants, ownership, action in favour of local authorities, complexity and shining example. Selections were made in an interactive role-based way. One of the stages of selection included voting. This way, the chosen cases were re-evaluated guided by emotional attitude, which was influenced by feelings of social justice or, in other words, social sympathy: mono-social and identity-lacking neighbourhoods built in late Soviet time were preferred instead of spatially and socially more diverse ones.

Participants learned to define the key issues of the neighbourhood and to distinguish strategic places where short term actions could make the difference in the further city development.

It was the ambition of RADI RĪGU! to build bridges between the public and the decision-makers, not to destroy them. Therefore "urban action" has to be interpreted as a positive notion. The ultimate task of the programme, disclosed in its title "CREATE Riga", was to make participants assume the role of mediators between decision-makers, stakeholders and the public.

"Act" principle

An effective tool for getting closer to users and city administration was "moving workshops". Starting in the House of Architects, participants worked in all selected neighbourhoods, in a local school, the library, the district administration, involving local people and inviting responsible stakeholders. A platform for effective communication between actors was formed. In between the sessions participants did their "homework" designing, organizing workshops for children and involving city authorities, investors, NGOs, police and port authorities.

The integrative approach, applied as a methodology to all levels of the programme - aim, structure of the workshops, preparation of the process, selection of the cases, branding and implementation of the results, doubtlessly served as a strong communicative platform. It also determined multiple, layered aims of the project, which can be articulated in eight flows: discover, learn, realise, cooperate, involve, market, link, create (Riga).

The preliminary friendly communication helped to create interest, understanding and personal engagement of the city officials invited to the discussions. Indeed, during the process they changed their positions from "observers" to "participants". All these activities definitely placed RADI RĪGU! on the public stage of the city. The biggest contribution to the successful "RR-story" concerning "best practice" public image was made by the well-organized and lively attended Closing Conference in Riga's City Hall, March 2012, as well as the FORUM – format of this event.

"Realize" principle

Despite the great number of different workshops organized in Riga in the last two decennia, there was a lack of practical results: very few ideas found their path to realization. Therefore RADI RĪGU! and the city authorities agreed, by contract , to consider implementation of the programme's results seriously. This agreement was an encouraging step and a sign of trust from the side of the city administration and politicians, because of a rather vaguely defined outcome and unknown results of the event, the urban character of it, and the unknown status of the two initiators. One can argue that RADI RĪGU! is a unique example of (positive) collaboration of city authorities and urban activists, built on mutual trust.

The most important result is the fulfilment of the main goal, namely, to raise awareness of the need for a more dynamic, strategic and open approach to city development and enthusiasm in diverse spheres of society: students and professors of three Latvian universities, politicians, municipal civil servants, district authorities, the Ministry of Environment and Self-Government, police, school, NGO's and inhabitants.

Decision-makers publically announced their willingness to further develop the programme for neighbourhoods and particular projects created by RADI RIGU!. The city development department has officially started working on the proposals.

4. Academia on the street

One can organize education in several ways. Most often the structure of the teaching process is linear - topics are instructed parallel to each other, lecturers using own examples and case studies. For a new short but intensive course in English on "Urban Studies and Planning" at the University of Latvia, an "integrated area-related approach" was introduced, whereby all lecturers implement their topic in one common case study. "Integrate real life in the learning process" could be a good metaphor for this approach.

It is clear that this approach demands a profound and harmonized preparation from the lecturers and the potential stakeholders involved in the chosen case. Furthermore, all lecturers have to be actively involved in the practical tasks of the students on the field: defining the key problems of the place on macro, meso and micro level, identifying opportunities for short term interventions, identifying major stakeholders, active groups, Ngo's, etc. and organizing appropriate events in order to develop a fruit full participation process. Finally, this integrated learning process leads to lively discussions among students, lecturers, stakeholders and active actors.

The course provided 6 topics: urbanistics and integrated planning, urban society and community planning, urban environment, landscape and re-generation, urban design, mobility, urban economics and governance and practise work.

Some statements of the students already express their alliance with the place:

"City is an ever self-creating process where physical and mental matters are connected more deeply than we can imagine"

"We are pretty good at putting up buildings. We should start making places"

"Being lost from Riga's citizen mental map, Sarkandaugava is all about 'yes' and 'no', about 'it is' and 'it is not'. Quite quantum."

"To understand community, we have to find out: what level of belonging to the place people have ?"

"Re-branding the place: to help the people to get a sense of their place, just to look around with fresh eyes, to teach them to read their environment, to discover hidden and unnoticed layers of the place's rich history and gain some proud and sense of belonging".

In order to increase effectiveness of the learning and adopting diverse information in a limited time, the principle of impersonating were applied: each team of students was asked to empathize with the role of some stakeholders and local actors in the field: as a planner, sociologist, transport manager, Port Authority, investor, the several age groups of inhabitants, the NGO which tries to find it's role in the neighbourhood development. This role-playing based approach also strongly contributed to the attachment of the students with the place.

5. Conclusions: back to reality

Integrating the Field and the Lab – the processes in real urban environment and the learning process as a stage for elaborating, testing and obtaining the new, to the dynamically organized world adjusted tools and skills – appears nowadays to be a "hot issue" for the urban practice and education. The integration should move in both directions: bringing the elements of learning into practice and simulating the conditions of the real world in the environment of academia. Principle of impersonating by playing a role or exchanging the roles (students become an "planner", an architect plays "student" etc), combined with taking place in physical, non-virtual reality, helps

- to facilitate an integrative approach to professional education in the realm of urban planning and design;
- to benefits from gaining experience through learning the processes in urban environment: in the case of Riga - the urban project from preparation and project definition to project management, maintenance and governance, interwoven in the design and participation process;
- to tie together practical work and theoretical knowledge in the process of planning education for both - "real life" and learning process;
- to apply the interactive approach to urban design and planning education, which reflects the communicative nature of planning and design;
- to set up a closer co-operation with important stakeholders and public authorities to obtain a carrying capacity for the effective realization of study objects.

- to bring rapid changes in professional mental landscape, multiplying the effect and efficiency of innovations and experiment.

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A locative urban game to collectively visualize spatial tactics
Discussion of a case-study

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ABSTRACT. The demand for participatory practices within the field of urban planning in Flanders is increasing. This demand is a/o spurred by the increasing (apparent) self-reliance of individual citizens (Santens, 2006) and the growing complexity of urban planning a/o caused by the large number of players typically involved in a planning process. This demand is acknowledged within spatial policy documents such as Spatial Structure Plan for Flanders (1997), introducing the term co-production, Witboek Stedenbeleid (Boudry, 2003), introducing the concept of the urban debate, and Beleidsplan Ruimte Vlaanderen (2012), actually organizing such an urban debate. Also the Stadsvernieuwingsprojecten consider the range of instruments that a city plans to employ to actively involve the population and local actors in the preparation, execution and follow up of new projects as one of the criteria to grand subsidies. Apart from generating policy documents, this demand is also triggering a search for innovative tools to support participatory processes (von Borries e.a., 2007; Foth e.a., 2011; de Lange & de Waal, 2012). This paper presents such a tool, namely a tool to visualize aspects of spatial tactics that people employ when using public open spaces. Spatial tactics are defined as the way that people adjust their behavior to spatial and social settings (De Certeau, 1984). Existing tools to map tactics draw heavily on ethnographic participant observation (Soenen, 2006). The tool presented in this paper, on the other hand, is a locative urban game relying on recent developments within social and locative media. These particular ICTs are selected because they connect the players with the physical settings, they facilitate both off-line and on-line interaction, they allow the game-master to redirect the game in real-time, they invite for long term engagement, etc. The paper will summarize the conceptual framework of the game, describe a case study and illustrate the three following contributions of employing locative urban games in spatial participatory processes:- the game is able to collect information on spatial tactics which may prove valuable for spatial experts having an assignment on the case-study location.

- the game is was able to increase the understanding among the players (being not spatial experts) of the spatial and social functioning of the case-study location.

- the game is was able to motivate people to engage in a spatial participatory processes.

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1. Introducing games as participatory tools

The demand for participatory practices within the field of urban planning in Flanders is increasing, spurred a/o by the increasing (apparent) self-reliance of individual citizens (Santens, 2006) and the growing complexity of urban planning processes a/o caused by the large number of players typically involved in an urban project. This demand is acknowledged within spatial policy documents such as Spatial Structure Plan for Flanders (Ministerie van de Vlaamse Gemeenschap, 1997), adopting the term co-production, Witboek Stedenbeleid (Boudry, 2003), introducing the concept of the urban debate, and Beleidsplan Ruimte Vlaanderen (Departement RWO, 2012), actually organizing such an urban debate. And, one of the criteria to obtain support for urban renewal projects assesses the range of instruments that a city plans to employ to actively involve the population and local actors in the preparation, execution and follow up of these projects.

Apart from generating policy documents and assessment criteria, this demand is also triggering *a search for innovative tools* to support participatory processes (von Borriese.a., 2007; Foth e.a., 2011; de Lange & de Waal, 2012). This paper presents such a tool, namely a tool *to visualize aspects of spatial tactics* that people employ when using public open spaces. Spatial tactics are defined as the way that people adjust their behaviour to spatial and social settings (De Certeau, 1984). Existing tools to map tactics

draw heavily on ethnographic participant observation (Soenen, 2006).The tool presented in this paper, on the other hand, is a *location-based game* relying on recent developments within social and locative media. The objective of this game is threefold: firstly, it should be able to collect information on spatial tactics that the players use when playing the game. This information should be relevant for spatial experts having an assignment in that location. Secondly, the game should increase the understanding among the players (being non spatial experts) of the spatial and social functioning of this location. And thirdly, the game should motivate people to engage in participatory processes addressing spatial planning issues.

Schell (2008) defines a game as "a problem-solving activity, approached with a playful attitude". This *playful attitude* is the main motivation for people to engage and immerse into the problem-solving task. By framing a serious problem, such as an urban planning issue, in terms of an objective to be completed within a game, the participant is offered a completely different perspective than in a standard participatory practice. When playing a game, an artificial conflict is created, in which the player enters willfully, driven by an *emotional outcome* (Juul, 2005).The biggest challenge is how to strike the balance between playfulness and seriousness, in order not to kill the game element and at the same time to contribute to the issue at hand. Unfortunately this is precisely where so many games developed within urban planning fall short, focusing mainly on the serious dimension, forgetting the playful part.

Besides, by providing a playful attitude, games have proven to be successful in motivating people to take part in participatory planning processes by involving people in *actions* (Ermi&Mäyrä, 2005a).This action component is especially present inpervasive games, a type of games played in everyday settings, as such blurring the boundaries between game and reality(McGonigal, 2006; Montola et al., 2009). Pervasive games turn familiar places into a playground where objects get new meanings and people take up new roles.

A third reason to use games is that the problem-solving activity of a game may require a certain level of *collaboration* from the players, in the sense that they need to coordinate their individual actions and interact with each other to solve the problem, as such reinforcing the participatory process. In the words ofMcGonigal (2006, p.237) this kind of distributed creativity encourages*collective magical thinking*.

A fourth reason is that games can *immerse* players in an environment. This is especially the case with location-based games (LBG), being a subset of pervasive games. LBGs use the city as a playground, while making use of portable digital technologies to interface between the physical and digital space (de Lange, 2009). To Merleau-Ponty (2002) our bodily experience of the world is pivotal for our understanding of the world. Through their

embodied dimension, LBGs have the potential to make the players more attentive and explorative to the environment, as players are "searching for and experimenting with the hidden affordances of everyday objects and places" (McGonigal, 2006, p.236).Ejsing-Duun(2011), in this respect,suggests that locations are not unambiguously conveying what designers want them to, but instead, players need to interact with the location to uncover the meaning of a location. Human actions alwaysconvey intentionality and these intentions frame the meaning that we assign to a space (Merleau-Ponty, 2002). This would imply that a game not only involves the uncovering of the identity of a place, but that it at the same time confers new meanings to this place, each time a player interacts with it(Ejsing-Duun, 2011). In this way, the identity of a place is not simply something that has to be uncovered, but is, instead, something created through game play.

Considering these features, games -and especially LBGs - indeed have the potential to support participatory processes addressing spatial planning issues. The bodily immersion, for instance, may help to increase the understanding among the players involved in the game of the spatial and social functioning of the location where the game is played.The problem-solving feature and the collaboration aspect may in turn prove valuable for spatial experts having an assignment on the case-study location. The playful attitude and the action component, finally, may motivate people to take part in participatory processes. In the next sections, we will prove what this potential holds by actually designing, implementing and assessing a location based game.

2. Game features and gamestructure

First, we will list the generic features that the LBG should possess in order to function as a participatory tool able to address the three goals introduced in the previous section. Secondly, we will illustrate how these features are translated into a concrete game structure.

A first feature that the game should possess is *site specificity*. This implies that the physical, social and cultural properties of alocation are integrated into the game (Reid, 2008). Only then may the game provide insight into spatial tactics. A second feature is *a long-term game-play* (i.e. multiple days). This would make it possible to observe how different settings (i.e. different times of the day, weather conditions, locations, etc.) affect players' spatial tactics. Thirdly, the game should have an *immersive narrative* assisted by *a clear goal* in order to guarantee the indispensable playful attitude. A final feature is *social interaction*, between teams, within teams, with the game master or with strangers. Each type of interaction may generate other insights in the spatial issues at hand.

As a first step in building the actual game, we focused on the second feature and selected a particular type of story, namely that of the *treasure-hunt*. In

this format, the players have to find a hidden treasure. We then stretched this hunt over *multiple days* during which the players have to complete a series of locative assignments, gradually directing them towards the final goal- the discovery of the treasure. This format allows us, on the one hand, to come up with tasks investigating the impact of particular spatial settings on players' tactics and, on the other hand, leaves us with the possibility to fine tune these tasks as the game enrolls.

In the second step, we built the game narrative. In order to meet the requirement of site specificity we started this step with a thorough analysis of the location where the game would take place. We analyzed the spatial morphology, the functions being present, the use of materials, the variety of green, etc., both via fieldwork and literature review. On top of this *spatial analysis*, we also conducted a social analysis through *participant observation*, noting behavior patterns- where people gather, where they don't, which actions they perform where, when they perform these actions, etc. On the basis of this double analysis, we selected a series of *locations* that might be considered problematic or holding a hidden potential. For each of these locations a series of *assignments* were created. These were then filtered to end up with multiple location-based narratives, assembled under one coherent treasure hunt story.

Within this narrative we defined *two types of rules*, *ludus* or competitive rules, motivating the players to compete in order to win the game (Frasca, 2001) and *paidic* or play rules, motivating the players to explore the affordances of objects and locations (McGonigal, 2006). Combiningboth types of rules ensures the progress of the game, offering the motivation to play, and at the same time disclosing spatial tactics.

As a final step, we introduced a minimum degree of *ambiguity* into the game. Ambiguity is a central element of locative play (Benford et al., 2003; Benford et al., 2006; Dansey, 2008; Gaver et al., 2003; Mäyrä&Lankoski, 2009)used to provoke surprises and excitement. As a result, the player does not know what belongs to the game world and what belongs to the ordinary world (de Lange,2009). Moreover, ambiguity has the potential to engage players with (spatial) issues without constraining them how to respond. It allows conveying the game-master's perspective, while at the same time enabling players to find their own interpretations, colored by their specific socio-cultural backgrounds (Gaver et al., 2003).

3. The game 'Cure for the campus'

The above game structure is implemented for one location, namely the campus of PHL University College in Hasselt. This campus includes a student restaurant, the student dormitory, the Fine Arts department and a parking lot. As specified in the previous section, the narrative was constructed by subsequently conducting a spatial and social analysis, selecting a number of key locations, specifying potential assignments for these locations and

integrating these assignments into one storyline. Each of these steps is summarized shortly.

The *spatial and social analysis* learned a/o that the behavior patterns in this part of the campus are very regular: in the morning, people arrive; during classes, people are inside; during lunch, everyone gathers in the restaurant and in the early afternoon everyone leaves again. In the weekend the campus is empty. A second conclusion is that spaces that are designed as meeting places are not used as such. For instance, there are hardly ever people gathering on the central square in between the restaurant and the fine arts department. People rather seem to meet in *marginal areas*, such as the entrance stairs to buildings, the parking lot, or the ledges around the restaurant. These conclusions were summarized in *a SWOT matrix*. On the basis of this matrix, four key locations were selected as a *playground*: the parking(1), the empty central square (2), the restaurant(3) and the empty pond around the student dormitory (4).

For each of these locations, a set of *assumptions* were written down regarding the prerequisites considered necessary to improve the spatial and social quality of these locations. For the outdoor locations (1, 2 and 4), it was assumed that qualitative public places require a sense of enclosure, warm materials (to sit on), easy-access to surrounding buildings, sunny areas, protection from rain and natural elements. For the indoor location (3), it was assumed that qualitative indoor meeting places require small rooms, a sense of enclosure and architecture elements that provide a distinct atmosphere. This was based on the observation that the central atrium in the restaurant hardly attracts people to lunch whereas the adjacent small and cozy spaces do. These and other assumptions would then be tested within the game, by observing the spatial tactics of the players.

Subsequently a series of potential assignments were generated for each of the four key locations. These were then filtered to come up with one coherent story. The baseline of the story is that the campus is sick and that it can only be healed by finding a treasure buried by the founding architects within the campus ground, many years ago. The hunt was conceived as a four-day journey during which the players have to cure four *wounds*, referring to the four key locations. On the parking lot, the players would have to construct an ideal picnic scene, using any material at hand. The underlying idea was to find out what the players consider to be a qualitative outdoor public space (symbolized by a picnic place). On the central square, the players would have to map the flow of passers-by, to then choose one of the spots where people don't walk, and create an installation that would make people leave their normal path. The idea here was to find out how the players would improve the square. In the restaurant, the players would have to describe the atmosphere of a series of spaces within this building and reflect upon the role of the spatial features in creating this atmosphere. The final assignment would take place in the pond around the dormitory. In order to find the

treasure, the players would have to playa game of *Snakes and Ladders*, drawn on the floor of the pond. The treasure will turn out to be the drawn gameboard, injecting the empty central square with an activity, as such *curing* the campus.

Cure for the Campus combines both ludic and paidiac rules. For instance, the first two assignments do not impose any timeframe, in this way encouraging an explorative game-mode. The third assignment, on the contrary, has to be completed within a timeframe, generating a sense of competition. Moreover, this assignment is graded by external experts further increasing the competitive aspect. This intertwining of explorative and competitive game-modes is further achieved by the introduction of small assignments such as riddles, conversations with the game-master, ad hoc tasks, etc.

Ambiguity is inserted into the game, for instance, by introducing strange tasks such as organizing a picnic on a parking lot, by involving staff of the school and strangers into the game and by keeping the flow of the game open. On top of this, ambiguity also emerges through coincidence, for instance, via misinterpretations.

Regarding the *technology*, *Cure for the Campus* uses Facebook[1] as a communication platform, simply because virtually anyone uses it. One of the reasons for this popularity is that Facebook has the ability to create extremely powerful "desire engines" experiences designed to create habits (Eyal, 2013). Facebook gets users to "self-trigger" to return to their website by attaching their services to the users' daily routines and emotions. The result is that people constantly check their Facebook pages. The implications for our game are clear: the more powerful the desire engine, the bigger the chances are that players will integrate the game within their daily routine and get truly immersed into the gameplay. Specifically, Facebook is used to upload assignments, send reminders, document gameplay, comment upon actions and involve external experts. Each team is also equipped with an iPhone, to communicate with the game-master (via Facebook and/or sms-messages), read QR-codes, and to document their actions.

1. http://www.facebook.com/pages/This-Is-Not-a-Game/450219838327992

4. Playing the game

The game was played from the 7th till the 11th of May 2012. In all, eight players, grouped in three teams, spent between one and two hours a day to complete the four assignments. All players were students from the PHL University College, be it from different departments, and lived in the dormitory. One student took on the role of a *spy*, mainly collecting information. One of the researchers played the game-master, controlling the progress of the game. Two other researchers (with a spatial expertise) contributed to the online discussions. And staff of the school and passers-by were involved to increase the gameplay.

The game started on Monday the 7th with the picnic assignment on the parking lot. Due to an unexpected event the parking lot was used that day and the assignment had to move to an adjacent sport field. The three groups, each constructed their imaginative picnic island using artifacts such as plants, stones, balloons, crayons, etc. Because of the size of the sport field, the three groups were sitting very close, turning the assignment into a collective activity. This unforeseen effect made the game-master join the players to discuss their interventions. In this way, *a congenial stage for conversation* has been created.

The same pattern was repeated during the second day of the game. Again the three groups collaborated making the game-master join the group to discuss the results of their actions this time also clarifying the underlying purpose of the assignment.

On Wednesday, the players had to map atmospheres in eight locations of the restaurant. These locations were equipped with QR codes linked to Facebook pages with questions about the experience of the place. Players both had to find the QR codes and answer the questions. Also here the assignment ended with a group discussion; the only difference was that this was a virtual conversation taking place on Facebook.

On Friday the game of *Snakes and Ladders* was played inside the pond surrounding the dormitory. This assignment was interrupted due to a strong rainfall.

The conversations with the game-master were not part of the original game structure. In retrospect, these conversations definitely helped to reach the three objectives, without obstructing the gameplay. The structure of the game turned into a sequence of an action-component consisting of *a problem-solving activity, approached with a playful attitude* and a reflection-component consisting of a conversation with experts. Both components reinforce each other and together make up the game. The action-component brings the players, each with their background and expertise, into a congenial state of mind where it becomes possible to collectively discuss serious (spatial) issues; a state of mind which is generally not achieved in the conventional round-table-discussion that take place in participatory processes. The conversations of the reflection-component, in turn, deepen

the process of learning initiated through the game and as such increase the immersion and the gameplay.

5. Assessment of the game results and gameplay

Throughout the game, *a huge amount of data* was generated, in different formats and by different authors. The spatial analysis, for instance, was made by the researcher and included mostly visual data (architectural drawings, sketches, pictures). The social analysis was also made by the researcher and consisted of pictures and text (literature, notes). The game-play was documented by both the players, the spy and the game-master using video, pictures, notes, audio-recordings, Facebook-posts, etc. After the game ended, finally, a series of interviews and questionnaires were conducted by the researcher with the players and with spatial experts resulting in more text. This data was analyzed using the *Grounded Theory method*, developed by Glaser and Strauss (1967), a method to deduce theories out of large collections of data. These theories were then validated by presenting them to experts in spatial tactics and by comparing them to state-of-the-art literature on this topic. In all, three analyses were conducted, one for each objective of the game.

The *first analysis* addresses the objective to generate insight into the tactics that people employ when dealing with their spatial environment. Recall that the spatial and social analysis resulted in a *set of assumptions* regarding these tactics which were meant to be tested within the game. This first analysis will only focus on these assumptions.

The first assumption addressed the features that *a qualitative outdoor public space* should possess. The game, in this respect, made clear that people seem to spend their break times in the vicinity of the buildings that shelter their daily activities, creating a sort of clusters around them. Interestingly enough, these clusters remain near the buildings, and do not expand on larger areas, even when the possibility exists such as in the central square. Goffman (1959) explains this behavior, arguing that people prefer to be part of an audience, rather than play the performer. Similar observations were made on the role of spatial attractors to stimulate the mixing of groups, the importance of socially comfortable sitting elements, the location of these elements in the proximity of building-entrances (Jacobs, 1989), the necessity of an outdoor place protected from the rain, of a satisfying enclosure allowing for a good viewpoint (Whyte, 2001), etc.

The second assumption addressed the features that *the atrium of the restaurant* should possess. The players noted, in this respect, that all social behavior within the restaurant seems to happen in groups. Hannerz (1980) confirms that people indeed tend to almost exclusively engage in social networks, a phenomenon referred to as encapsulation. This explains why the players' reasoning for choosing places to sit was hardly determined by the specific atmosphere of these places or to its affordances, but simply by the

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group to which the players belong. A second observation was that the central atrium was indeed not attractive for more private activities, such as eating, studying, etc., but performed well as a place that facilitates fleeting, standing interactions, being an attraction in itself (Lofland, 2007).

Concluding, the game seems to confirm the assumptions, but at the same time generated new insights -new, in the sense that they were not known to those involved in the game, not that they were not already described within the state-of-the-art literature. The contribution of the game lies in the fact that it allows spatial experts to test assumptions in a concrete location, whether they formulated these assumptions themselves or whether they found them in literature. On top of this, the game can also generate proposals to improve a location in line with the assumptions. It is thus fair to say that the game is indeed relevant for spatial experts. A post-game assessment with two spatial experts confirmed this.

The *second analysis* addresses the objective to raise the awareness of the players regarding the functioning of their spatial environment, the impact of the behavior of others as well as their own behavior on this environment.

To achieve this objective a number of techniques were used such as introducing assignments to stimulate a multi-sensorial experience of the environment, forcing the players to collaborate and bringing the players to locations they've never been before.

The difficulty with this objective is that a potential raise in awareness is difficult to be measured objectively, since it depends on what players already know, both consciously and unconsciously. One therefore depends on statements of the players and on indirect indicators, both of which are open to interpretation. Regarding the first, the players indeed confessed, both in conversations during the game and in interviews conducted after the game, that the game had changed their view upon their daily environment. An example of an indirect indicator confirming this, is the observation that players who participated in the game during the first two days delivered more detailed and richer answers compared to one player who only joined the game on the third day.

The analysis also made clear that the immersion of the players can in some situations be so deep, that awareness is replaced with selective attention towards a single feature. For instance, during the second assignment the players were so much engaged into the physical act of tracing movements, that they only paid attention to the biggest flow of people not noticing people coming from other directions.

The *third analysis* addresses the objective to develop a game that could motivate people to engage willfully into participatory processes addressing spatial planning issues. This analysis made use of the observations, interviews, questionnaires and a series of assessment heuristics.

The observations made clear that the game stimulated a multitude of social interactions, some of which were planned and some of which emerged. This variety can be seen as proof for engagement into the game. Another aspect the observations made clear is that the combination of ludic and paidiac rules did work, with the first luring people into the game and the second making people reflect and collaborate. A third aspect that became clear is that the variety of types of conversations -with the game-master, via Facebook, with co-players- made sure that all type of players –from extrovert to introvert- felt comfortable to participate.

The interviews and the questionnaire, in turn, confirmed that the players enjoyed playing the game. Moreover, they made clear that the players preferred face-to-face conversations over Facebook conversations, but also that these Facebook conversations increased the gameplay by keeping the players involved when there were no assignments. Also the iPhones turned out to have contributed to the playful attitude.

The heuristics, developed to assess the players' experience of games (a/o Federoff 2002; Desurvire et al. 2004; Jegers, 2009), confirmed that the game does employ the necessary elements- in terms of goals, challenges, narrative, etc.- to qualify as a pervasive game.

6. Conclusion

The objective was to develop a tool to support participatory processes addressing spatial planning issues, more precisely a tool that could map spatial tactics, that could raise awareness among people on their role within these tactics and that, most importantly, could motivate people to use this tool. The conviction was that a promising way to develop such a tool would be by means of a location-based game. The *Cure for the campus* experiment confirms this conviction meeting all three objectives. The experiment moreover suggests that the *integration* of conventional participatory methods, such as a focus group (Steyaert &Lisoir, 2005), into a location-based game would lead to even better results. Regarding the use of locative and social media, the experiment made clear that the added value is certainly logistically (e.g. the ease of documenting, communicating), but, what is more important, that these technologies play an essential role in keeping the players immersed into the game and are thus indispensable to guarantee a successful participatory process.

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The ASPIS Learning Tools
Using Serious Games to Support Sustainable Development
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1. Introduction and Background

Serious Games is relatively recent concept which originated from the use of video games technology for non-entertainment purposes. The serious games application which is most credited for the coining of the phrase is the game America's Army which was originally commissioned by the American Military as a tool for stimulating the recruitment of young people into the US Army.
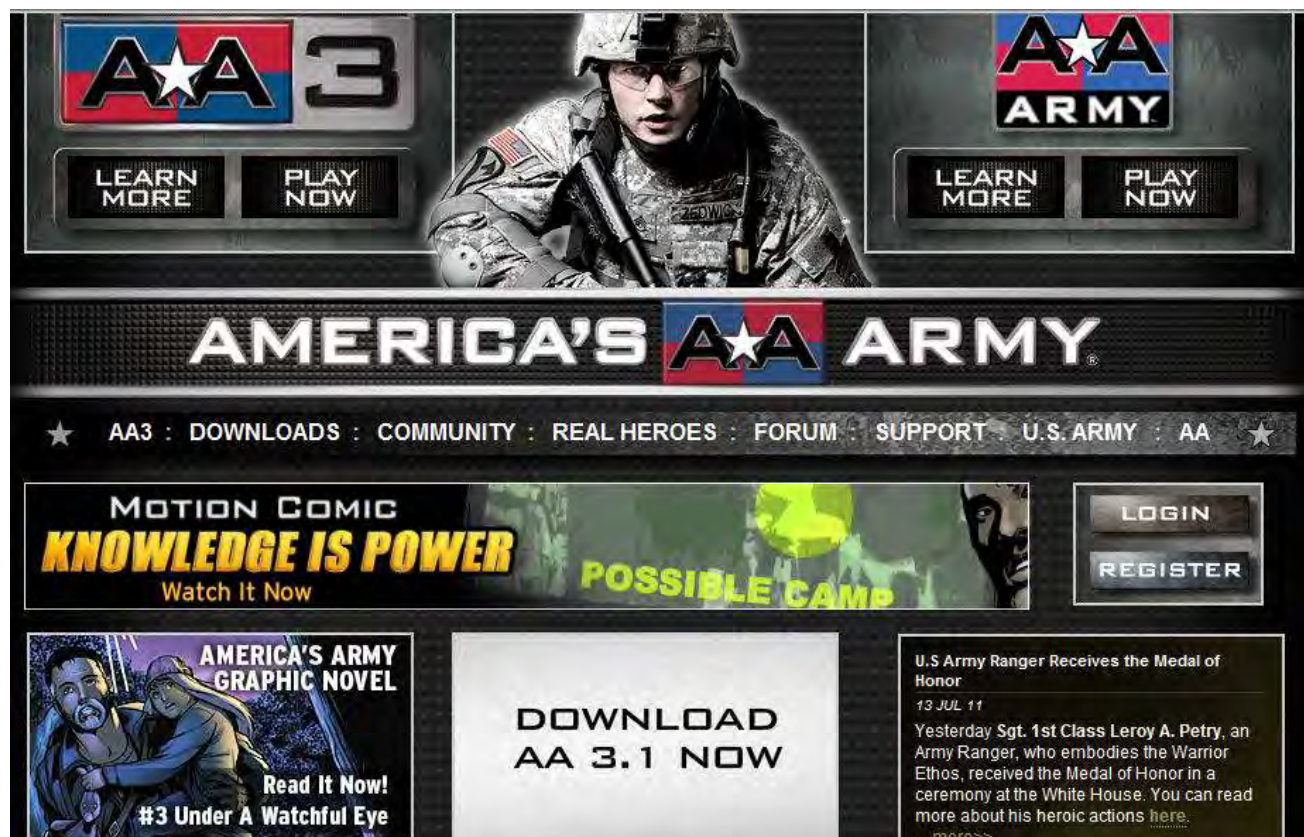
Figure 1. Americas Army Web Site

The logic behind the massive budget allocated to this project was that video games are highly effective in engaging players and influencing attitudes and behaviours, especially amongst the target group. What Americas Army achieved was to bring about the realisation that these technologies could also be used effectively for training and simulation and hence the term Serious Games was born.

The early Serious Games focused on areas where the cost-benefit ratio of games methodologies was most easily justified and understood, namely in

areas of high training costs and/or risks and/or practicality. These tended to be in the military, medical and corporate training areas. As time has gone by, the traditional uses of games methodologies throughout the ages to engage, educate, motivate and influence behaviour have begun to be applied through video games, virtual worlds and social networks, the so called immersive technologies.

One of the major barriers to the use of these technologies for addressing climate change issues like sustainable development was the high cost of games development which, in the case of serious games, is amplified because of the need to use experienced subject matter experts as part of the games development team. Successful entertainment games can use budgets that run into millions of dollars and the production values are similar to those of Hollywood movies and are therefore beyond the scope of application areas like sustainable development.

2. Serious Games for the Environment and Sustainable Development

The games industry in general has been a massive driver for technological innovation as consumers demand ever more realistic simulations and more intuitive interfaces. The net result of these drivers is that there has been a significant improvement in games development and presentation tools across multiple technology platforms, including the latest generation of mobile phones and tablets like the iPad where the size of the market enables millions of games to be sold at very low prices. This has also extended to browser based games, social network games and virtual world applications which link real-world environmental data to 3D visualisations in virtual world environments such as Second Life.

It is against this background of high development costs that serious games designed to address sustainable development and environmental issues have had to focus on attracting large audiences to play such games, e.g. the Climate Change game commissioned by the BBC and played by over 1 million players. Smaller scale initiatives targeting specific groups of individuals such as attracting young people into a career based on designing sustainable public spaces have almost inevitably had to use low cost interactive multimedia tools that can combine an interesting narrative with decision tree activities and modelling algorithms that both engage and motivate the users.

3. The ASPIS Sustainability Game

Figure 2. Caspian Learning's Thinking Worlds Platform

The ASPIS project set ambitious goals for the project made possible by the combination of Caspian Learning's Thinking Worlds technology platform and Imaginary's experience of games-based learning. The game uses a narrative of a college student begining a course on designing sustainable public spaces. This student has a brother who is faced with the closure of his beloved skate board facility in his local park and asks his older student brother if he can help in any way.

Figure 3.

4. The ASPIS Opening Screen

In the game, the player assumes the role of the older student brother who is guided by his professor to carry out a series of Quests designed to both help the younger brother and educate the student on important issues and activities involved in the design of sustainable public spaces.

The ASPIS Sustainabilkity Game uses an immersive 3D virtual world representation of the local park around which the player is free to navigate and interact with virtual characters in the park, solve puzzles, collect information and make decisions.
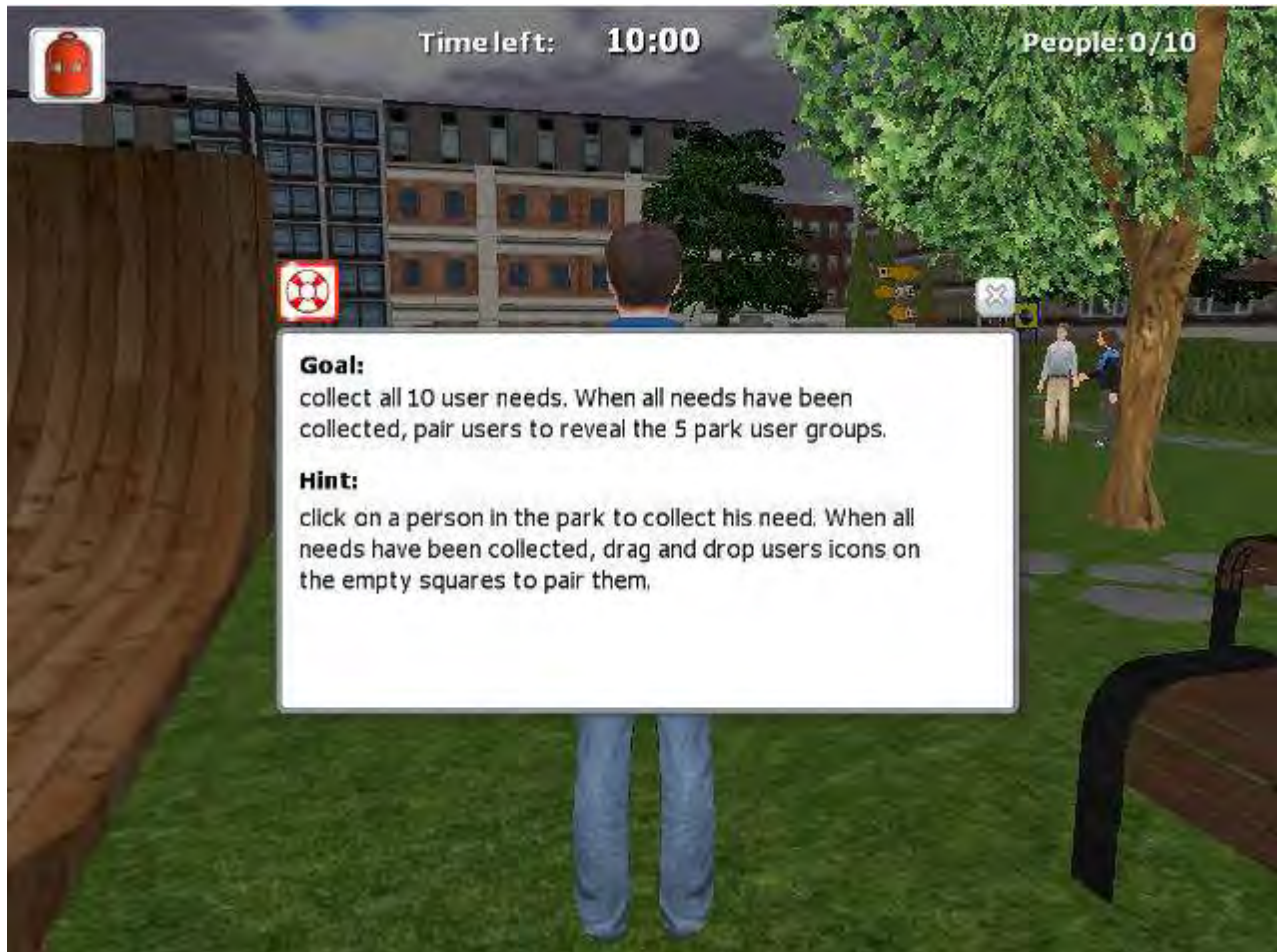

Figure 4. Example Quest Goal Screen

At the beginning of each quest, the player is given instructions on what to do to fulfill the quest and is set a time limit to achieve the goals. The quests themselves use a variety of different games based learning techniques to add variety and interest to the game as well as motivating the player to complete all the quests.
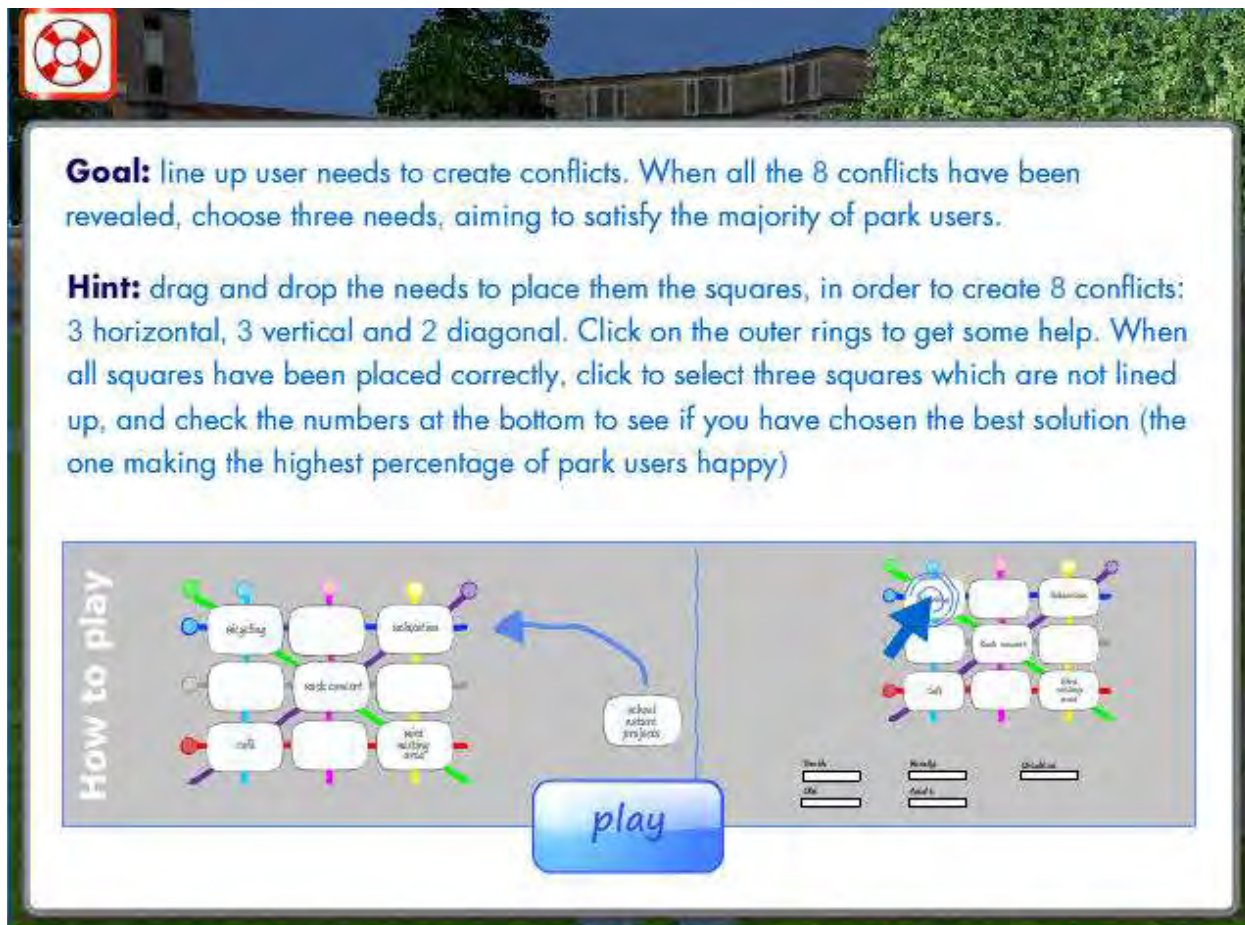
Figure 5. Quest Six Hints Screen

The game culminates in the player participating in a council meeting during which he has to use the knowledge and contacts he has acquired during the quests to gain support for his budget proposals for the sustainable development of the public space and the preservation of his brother's play facilities.

5. ASPIS Sustainability Games Observations and Conclusions

The use of a 3D immersive virtual world replicating a public space such as a park with specific characters and a series of mini-game quests was a very challenging requirement that would not have been possible without the use of a games engine which incorporated tools to support the design of interactive learning journeys. There were several iterations of the narrative and game play before the narrative and quests were finally established.

The development of the game was also complicated by various incompatbilities between browsers and hardware configurations that caused bugs within the games and illustrated some of the challenges associated with browsers based games that use 3D environments. Over the next few months and years, it is likely that, with the adoption of standards like HTML5, some of these issues will be resolved, except for users of legacy hardware and software.

With the exception of the bugs referred to above, the user experience of these types of games is generally good and as serious games and immersive technologies mature, more learning and influencing games of this type are likely to be developed, especially for mobile and portable platforms such as the iPad.

Panel on the piloting of the ASPIS learning tool.
Marianna Tsemperlidou – Friedrich Kuhlmann– Tomas Ooms – Joan Noguera Tur

Theme 6:
Behavioural and socio-cultural aspects

Participation in public space. Projects in Brussels, some case studies.
Livia de Bethune, SUM Architects

The spatial organisation of public spaces in terms of communication and urban public life

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ABSTRACT. Human are entities that are totally different and unforeseenly variant by means of their individual attributes such as perception, personality, culture and habit besides their basic physical and mental attributes. Yet, in this variance, the most important common points are their search for the space which develops according to their similar needs and the need of living in groups since the era that man began hunting. This search and need appears as an absolute advance in collectivity and people's skills in protecting and thinking about each other, therefore sustaining a healthier communication process.

The term "communication" is derived from a Latin word "communis" which is defined as shared, common, universal and public in English. Considering the other terms that have been derived from the same word such as commune, communal, community etc. it is clear that the term communication refers to the term "public" in the sense of "concerning, or available to the people as a whole". In this aspect, the terms "communication" and "commun(al)" must be deal together by realizing that communication is for commun inherently. In other words, communication itself must be received as a process that allows any individual to become socialized for the purpose of adapting them both to each other and also to the surrounding natural / artificial environment affecting all kind of public relations. As a matter of fact, a very unique type of urban public life emerges in consequence of the mentioned interaction of individuals through communication.

In terms of urban design, these two common traits of human that develop the main subject of this study is concealed in the problematic of the design of public spaces, yet the grade of quantitative, qualitative features of public spaces are prior in context of the relations of people with each other and the city that they live in. In consequence, this study discusses the relationship between spatial organisation, social communication and contentment of life, emphasizes that the guidance can be achieved through the intermediacy of urban design will be improving the degree of awareness concerning city and public by a user based organisation through the communication attribute of public spaces.

1. Introduction

As a process, undoubtedly communication has a fundamental role related to the development of any healthy relationship and certainly it serves to solve misunderstandings and also to improve awareness between people mutually. Here, what has been referred by the term communication is not the transmission of the information electronically; it is of course face to face communication that expected to occur in public spaces.

Regardless of how far technology has evolved and the barriers of time and distance have dissolved, there are many arguments that there is no replacement for face to face interaction. Face to face communication allows power relationships to be reinforced, whereas the ICT (Information and Communications Technologies) is an equaliser and therefore tends to diminish the power differentials. (Coiera, 1999:508) Face to face interaction facilitates the transfer of tacit knowledge (Bower, Hinks, Wright, Hardcastle & Cuckow, 2001:4) and knowledge that is not written or definable, but gained through experience. (Griffith, Sawyer & Neale, 2003:266)

Thus, the study discusses the relationship between spatial organisation, social communication and contentment of life, emphasizes that the guidance can be achieved through the intermediacy of urban design will be improving the degree of awareness concerning city and public by a user based organisation through the communication attribute of public spaces.

2. Etymology of "communication" and definitions

The most important ingredient we put into any relationship is not what we say or what we do, but what we are. And if our words and our actions come from superficial human relations techniques rather than from our own inner core, others will sense that duplicity. We simply won't be able to create and sustain the foundation necessary for effective interdependence.

Stephen R. Covey

Even though communication is obvious, it appears difficult to define due to the changing perception of the term into "computing", simplifying the process to just transmission of the information mostly electronically. Except that approach, this study focuses on the etymological roots of this term. Although they all share the same etymological perspective we still see that different individuals define communication in different ways.

Dale defines communication as "sharing of ideas and feelings in a mood of mutuality". (Dale, 1969: 10) Congruently, Numan and Summer say that "communication is the exchange of facts, worries, opinions or feelings among two or more person". (Numan and Summer, 1961:219)

There are also definitions emphasize the significance of symbols, "the transmission of information, ideas, emotions and skills, etc., by the use of

symbols" (Berelson and Steiner, 1964:527) and "the transmission of information, ideas, attitudes or emotions from one person or group to another primarily through symbols". (Theodorson and Theodorson, 1969: 62)

Communication is any act by which one person gives to or receives from another person the information about that person's needs, desires, perceptions, knowledge, or effective states. Communication may occur intentionally or unintentionally, may involve conventional or unconventional signals, may take linguistic or non-linguistic forms, and may occur through spoken or other modes. (Guidelines for Meeting the Communication Needs of Persons With Severe Disabilities, 1992: 3)

In a ritual definition, communication is linked to terms such as "sharing", "participation", "association", "fellowship" and "the possession of a common faith". This definition exploits the ancient identity and common roots of the terms "commonness", "communion", "community" and "communication". Hence it is clear that a ritual view of communication is directed not toward the extension of messages in space but toward the maintenance of society in time; not the act of imparting information but the representation of shared beliefs. (Carey; 1989:18)

The term "communication" is derived from a Latin word "communis" which is defined as "shared, common, universal and public" in English. Considering the other terms that have been derived from the same word such as commune, communal, community etc. it is clear that the term communication refers to the term "public" in the sense of "concerning, or available to the people as a whole". In this aspect, the terms "communication" and "commun(al)" must be deal together by realizing that communication is for commun inherently.

Besides, there is more than a verbal tie between the words common, community and communication. Men live in a community in virtue of the things which they have in common; and communication is the way in which they come to possess things in common. What they must have in common are aims, beliefs, aspirations, knowledge in other words a common understanding. Such things cannot be passed physically from one to another like bricks; they cannot be shared as persons would share a pie by dividing it into physical pieces. (Carey, 1989: 22; Dewey, 1916)

In other words, communication itself must be received as a process that allows any individual to become socialized for the purpose of adapting them both to each other and also to the surrounding natural / artificial environment affecting all kind of public relations. As a matter of fact, a very unique type of urban public life emerges in consequence of the mentioned interaction of individuals through communication.

Referring the importance of the relation between urban public life and communication, Oskay defines this term as; "the activity of people that search for instruments and produce knowledge using them with a certain division of labour in order to continue their existence under the same natural

conditions on the same piece of geography, and thus who seek to integrate the different sections of the society under upper-identities generating values and beliefs to justify the differentiations due to this division of labour". (Oskay, 2001: 15-16)

In addition to this, individuals obtain the opportunity to perceive, comment and choose the relations through communication. In terms of society, communication provides the interaction between individuals overseeing the values of the society and the environment to sustain the urban public life and customs. (Bütün, 2002: 26; Laswell, 1948)

However, approaches to the modern city frequently have described urban public life as isolating, anonymous, degrading of social ties, hostile to community. Almost as often, it seems, these accounts are offset by efforts to find new and different bases for community in the city. In some versions, the size, density and diversity of urban populations serve to insulate and alienate individuals from each other; in different readings these same factors provide the setting for subcultural formations, for imaginative and voluntary social ties, for remaking community. (Tonkiss, 2006: 8)

For sociological purposes a city may be defined as a relatively large, dense, and permanent settlement of socially heterogeneous individuals. (Wirth, 1938:8) In the same sense, according to the description of the public space by Sennett; where the social life occurs in is the very city itself. "City" and "civility" also have a common root etymologically. Civility is treating others as though they were strangers and forging a social bond upon that social distance. The city is that human settlement in which strangers are most likely to meet. (Sennett, 2002: 264)

The city consists of open and closed spaces that owned and used publicly or privately. Besides all the sub-types of public spaces, the acceptance of this study is public spaces are opened to all the groups of society and used publicly. These spaces are where the urban public life, communion and social awareness raise.

In this respect, much of the daily experience of the city occurs within the collectively shared public spaces. Public space provides not only for the most basic of the city's functions and access but it also provides for and contains many other functions and activities synonymous with urban public life. These have traditionally been organized, such as markets and public festivals, as well as spontaneous, including everything from the promenade and the meeting of friends to the appropriation of space for play, commerce and display. (Curran, 1983: 1)

Hence, these organized or spontaneous urban activities are a very significant form of communication between people and the city. Human do communicate in some way inherently; however, the efficiency of the communication depends on varying individual and environmental factors.

Despite their variance, the most important common points of people are their search for the space which develops according to their similar needs and the need of living in groups since the era that man began hunting. This search and need appears as an absolute advance in collectivity and people's skills in protecting and thinking about each other, therefore sustaining a healthier communication process.

Here, what is important in terms of urban design and planning is the organisation of public spaces as the places where people come together to create face to face communication improving their awareness concerning other people and the spatial organisation of public spaces is directly related to the effectiveness and productivity of social integration and urban public life.

3. Urban public life and the spatial organization of public spaces

The terms "private" and "public" were first mentioned during the Hellenistic period of history. Arendt, for example, located the origins of the public sphere in the Ancient Greek polis, based around the meeting of private citizens in the public space of the agora. (Sheller and Urry, 2007: 9)

In the fully developed Greek city-state the sphere of the polis, which was common (koine) to the free citizens, was strictly separated from the sphere of the oikos; in the sphere of the oikos, each individual is in his own realm (idia). In Greek self-interpretation, the public sphere was a realm of freedom and permanence. Only in the light of the public sphere did that which existed become revealed, did everything become visible to all. In the discussion among citizens, issues were made topical and took on shape. (Habermas, 1991: 3-4)

First of all, in terms of etymology, the complication of the explanation what is private and public especially in Turkish, has to be considered with the lifestyle and also the spatial organization of the Ottoman Empire. The distinction between private and public appears to be different from the counterparts in the western languages.

As it is quoted by Tanyeli, it can be understood from the correspondences of "private" in Turkish of the late 19th century, such as concealed, secluded or intimate that the users of this language were just able to comprehend the concept of private in this sense, which was not familiar with them yet. In this period, the word "private" was being considered to be in reference with the old terms which were known as "the things that should be kept away from the others" and took its place in English-Turkish dictionaries with this definition. (Tanyeli, 2005: 199)

Also, the word "public" was being used in reference with the government, nation and general. There has not been any description of the "public" except this mentioned relation. Today, due to developing relations with the world and the conditions of the country, which have been differing from the mid-19th century, there is a stalemate in terms of the use of these words in this

language (Turkish) and consequently the spatial organisations of these spaces that have not been used in reference with the same context in English. (Demir, 2010: 29)

In a more general context, Arendt indicates that no human life is possible without a world which directly or indirectly testifies to the presence of other human beings. All human activities are conditioned by the fact that men live together, but it is only action that cannot even be imagined outside the society of men. (Arendt, 1994: 22) Of all the activities necessary and present in human communities, only two were deemed to be political and to constitute what Aristotle called the bios politikos, namely action (praxis) and speech (lexis), out of which rises the realm of human affairs from which everything merely necessary or useful is strictly excluded. (Arendt, 1994: 25)

According to Arendt, public life, even though it dwells in the urban spaces of urban state, is not limited by these areas. In this context, the public space itself expresses the "freely chosen special form of organisation", as this form is not an obligatory act, as man is inclined to form partnership with "others". (Arendt, 1994: 26) Here, it is clear that beyond any spatial organisation and public spaces Arendt points the public sphere mainly.

However, unlike the term "public sphere" which has been defined by Castells as "The public sphere is the space of communication of ideas and projects that emerge from society and are addressed to the decision makers in the institutions of society. The relationships between government and civil society and their interaction via the public sphere define the polity of society." (Castells, 2008:78) what has been referred by the term "urban public life" beyond economic and political life is only the interaction itself meaning sociability. Accepting every individual as an economic or political character which are the parts of public realm, these two terms are in a direct relation obviously. Even so, sociability and therefore the term urban public life appear as the very first step of creating the public sphere in terms of creating the social awareness first.

Besides, the differentiations of the use of these terms in different languages, in his study Gehl defines that; there is more focus than ever before on the human dimension in city planning and the need for quality in the public realm of our cities. Cities all over the world are rediscovering their public spaces and a general awareness has been awakened regarding the need for dignified, high quality city environments for people. People are invited to repossess their cities and restrictions are being made to reduce parking and traffic in central city areas in order to make room for more people oriented activities. (Gehl, 2002:7)

Gehl also indicates that; there are two opposite directions in city planning which can presently be identified. In some cities walking and public life are disappearing, emphasizing that life is becoming more and more privatized. The fact that people in all parts of the world respond eagerly and enthusiastically to these new opportunities for walking and participating in

urban public life in public spaces, indicates that walking environments and other types of public spaces where people can meet are important assets in present day society. (Gehl, 2002:7) Regarding the importance of walking and pedestrianisation, in terms of social awareness and communication it is clear that required spatial organisation is more than creating opportunities just for walking.

In this sense, there are spatial and also instrumental roles that public spaces can play in terms of communication. The spatial role is related with the fact that even it is incidentally communication begins whenever two people just realize each other. (Cüceloğlu, 2002: 46) As such, that means this can only occur in public spaces. Here, Cüceloğlu points that facing each other, two people are able to communicate even through non-verbal modes getting first impressions. Therefore, the first role that allows any two people facing each other corresponds to the spatial role of public spaces in terms of communication.

The second communication attribute of public spaces is the mentioned instrumental role which invites people to the city reflecting the urban public life. The city must be experienced during the days of different seasons and also during the different, the most and the least crowded times of a day to really understand and live it. In this perspective, the places where the users, who are not in a permanent relationship with the city (domestic/foreign tourists etc.), will experience the most about the city and in other words will communicate with city are the public spaces.

Thus, remembering the definitions of communication that emphasize the significance of symbols, it must be considered that every natural and artificial elements of the city is an information source for the users and the current or future interventions, especially the ones in public spaces, will change/affect the quality of this information in either good or bad way. Here, the issue that should be also discussed is the use of the terms "urban communication" and "urban communication elements". Regarding the meaning of the term communication, urban communication elements are more than kiosks, city maps, advertising boards etc. which provide just basic information and guidance about the city.

Carrying very unique messages, every natural (topography, climate, flora, fauna even prevailing wind direction etc.) and artificial feature of the city (construction material and type, cultural-historical assets, urban pattern characteristics etc.) is a communication element/symbol that gives information about the city to the users with the inhabitants and the lifestyle as a whole. On the other hand, considering the fact that every unique element of the city carries a message to the users, these terms also have to be deal together with the terms like urban image and urban aesthetics and urban identity integratedly.

However, beside the theoretical illusion of all the terms including urban communication and urban communication elements, due to the evolving

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advances of ICTs (Information and Communications Technologies), a digital and virtual life has been rising undoubtedly. Thus, direct effects of this rising lifestyle to the urban public life and to the preferability/desirability of the public spaces have been appeared as well. In addition to this, as Sheller and Urry indicates; one of the key dilemmas of the 20th century concerned the overwhelming power of the state and market to interfere in and to overpower "private" life. By contrast, in the 21st century, the emerging social problem is seen as the erosion of the "public" by processes otherwise understood to be "private". On every front, it seems, the "public" is being privatized, the private is becoming oversized, and this undermines democratic and also urban public life. (Sheller and Urry, 2003: 2)

In this sense, historically, the issue that must be handled is the publicty of man. As it has been conceptualized by Sennett it is possible to address the public man, in other words the side of man that belongs or in concern of the society. In his study, "The Fall of Public Man" which has been described as a process, Sennett argues that by the 19th century, after the consolidation of the power of the bourgeoisie and under the continual influence of capitalist economies, people have retreated from meaningful public interaction into a private life.

By the end of the 17th century, the opposition of "public" and "private" was shaded more like the way the terms are now used. "Public" meant open to the scrutiny of anyone, whereas "private" meant a sheltered region of life defined by one's family and friends. (Sennett, 2002: 16)

Butler in the Sermons says that (1726), "Every man is to be considered in two capacities, the private and the publick." to go" out in publick" (Swift) is a phrase based on society conceived in terms of this geography. The older senses are not entirely lost today in English, but this 18th century usage sets up the modern terms of reference. (Sennett, 2002: 16)

The sense of who "the public" were, and where or when one was out "in public" became enlarged in the early 18th century in both Paris and London. Bourgeois people became less concerned to cover up their social origins; there were many more of them; the cities they inhabited were becoming a world in which widely diverse groups in society were coming into contact. By the time the word "public" had taken on its modern meaning, therefore, it meant not only a region of social/urban public life located apart from the realm of family and close friends, but also that this public realm of acquaintances and strangers included a relatively wide diversity of people. (Sennett, 2002: 17)

These changes in language were correlated with conditions of behaviour and terms of belief in the 18th century cosmopolis. As the cities grew, and developed networks of sociability independent of direct governmental control, places where strangers might regularly meet grew up. This was the era of the building of massive urban parks, of the first attempts at making streets fit for the special purpose of pedestrian strolling as a form of

relaxation. It was the era in which coffeehouses and cafes became social centers; in which the theatres and opera houses became open to a wide public through the open sale of tickets rather than the older practice whereby aristocratic patrons distributed places. Urban amenities were diffused out from a small elite circle to a broader spectrum of society. (Sennett, 2002: 17)

The period which is the beginning of the increase in the circulation of goods and information, is a process that affects both the form and the use of the cities. Hence, this process has brought along class conflicts and a turning point in terms of the change of cities and especially the public spaces. Public spaces which had to be the stage of compromises of different social groups has been witnessed violent clashes of different interests.

Today, the present situation of the urban public life and public space in terms of its historical transformation and also the spatial organisation has to be considered in reference with the terms globalization, individualization and alienation. This process that has been described as in one hand resembling of people creating a standard culture and lifestyle through the technology and on the other hand being melted under the thumb of capitalism people become polarized and atomised. In our history of humanity, these experiences require solidarity, social responsibility and awareness more than ever. However, the individual is now getting lost on the way to his/her personal welfare getting apathetic to the community that he/she belongs losing all the social responsibilities.

4. Conclusion

In general, cities have been described as ancient city, medieval city, modern city, postmodern city etc. historically and also according to their specialized identities such as commercial city, tourism city, financial city and so on. Due to the impacts of capitalism and the effects of neo-liberal policies, new definitions have been added to these mentioned identities according to the national-international development levels and the roles of the cities such as global city, center city, colonial city, third world city etc. These new identities, which are differing and specializing increasingly, lead to the rearrangement of the spatial organisation and social inequalities of the cities inevitably. This process entails significant transformations in terms of the site selection of the members of different ethnic, religious, cultural identities and reshapes the spatial segregation in the cities. (Kurtuluş, 2003: 76)

Consequently, public spaces are subject to urban design not only in a spatial perspective but also in a social perspective. These spaces are where the commune has to get together and debate about their mutual life face to face. In terms of urban design an ideal public space must be organized considering the society together as a whole, improving the social awareness to make the possibility of debating more.

Taking the coexisting of people into consideration, the organisation of the cities as the public spaces is only likely to be actualized through quality of life

and public welfare oriented approaches. Thus, the harmony of the social life and the relation with the space will be reflected in each other. Thereby, cities determine and present the quality of urban public life and the values of the social life. However, this organisation can only be actualized for the public spaces when the sense of "the spaces that do not belong to anyone" change into "the spaces that belong to everyone".

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The comparison of tradition Otoman and modern Turkish open spaces

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ABSTRACT. Use of open space differs at traditional Ottoman and Modern Turkish settlements. Open spaces at these settlements can be classified as the public and private spaces. Shopping and dwelling areas were separate in Ottoman settlements. Open public spaces of Ottoman towns were the open markets, trading courtyards, courtyards of the mosques, fountains and alleys. Promenades and squares as public spaces were not common during Ottoman Empire period until Westernization effects in 18th Century. Courtyards and gardens of the houses were the open private spaces of the towns. They were open spaces of the houses which were designed to protect the privacy of family life. Use of private open space also started to change with Westernization effects beginning from 18th Century. Shopping and dwelling areas started to come together during late Ottoman period and promenades and squares as public spaces started to be common especially in Istanbul. Urban plans of the cities started to be made after foundation of the Republic in 1923 and Ankara, the new capital city of the country, was a prototype for the others convenient to the modernism ideology. Wide boulevards, squares and parks were the main open public spaces of the modern town. In addition to this, private open spaces of traditional dwellings have changed into semi-private and semi-public spaces with increase of multi-storey houses, mass houses and isolated settlements surrounded with high walls. The comparison of open spaces at both traditional and modern Turkish settlements as public and private uses will be examined in terms of social environment in this paper with their positive and negative aspects.

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Building with society – Architecture as an instrument to affect social change.

Stefanie Cornut

1. Preface

Due to the recent economic, ecological and political crisis, many feel that we are at a turning point of our society. We gradually become aware of the fact that the choices we make today will determine the society in which our children will live tomorrow (Jonas, 2011). These social choices are spatially translated and therefore policy makers have to look very specific for the physical translation of a socially, environmentally and economically sustainable society. I try to reflect these thoughts on my direct environment, Brussels. A livable metropolis expresses itself in space. Where underprivileged in general and immigrants in particular apply as a touchstone of livability. It are surely these groups that are armed the worst against the social problems we face today. Two of these social problems are situated in the area of housing and society. Both problems take place in space. Housing is though mainly a problem of the privately defined space and living together is a problem that mainly takes place in the public space.

In this article I have (spatially) focused on this duality: on the one hand there is the housing problem that Brussels is confronted with, whereby the deficit of sufficient quality housing for all segments of the population is problematic (this actually goes about the private space) and secondly, it is found that the Brussels region puts a strong emphasis on addressing disadvantaged neighborhoods (so here it goes about intervention on public space).This article introduces a concept that tries to address both problems at the same time. In the first part we will identify these problems as two sides of the same right. Subsequently I will bring forward three architectural tools that deal with both challenges at the same time: sharing, participation and the opening up of networks. Finally I will briefly summarize everything in the conclusion.

2. Right to a home

A house and its environment are inextricably linked together, both from a capitalist point of view as from a sociological perspective. If we take a look at capitalist or market influences, we can say that the mechanism of the housing market is largely linked to externalities (Hardt & Negri, 2009). This happens very ordinary by abstracting the common and expressing it as a value that can be traded. Within the real estate sector *the value of a property is not represented exclusively by the intrinsic characteristics, but it is also and even primarily determined by externalities*. The real estate economy consumes the intangible common and also the added value that it generates. They will attempt to privatize it without taking any responsibility and without any contribution and this in the name of profit (Hardt & Negri, 2009). Furthermore, according to Pierre Mayol, are the public and the private incessantly

dependent on each other, since *within the neighborhood one has no meaning without the other* (Mayol, 2010). We can link the vision of Bourdieu to this, namely that the social capital of people is expressed through the position one occupies in social space (Bourdieu, 1999). The metropolis is a place of unpredictable encounters and of continuous exchanges of the common: cultures, languages, knowledge, habits, ... *The collective is far from what everyone has in common, but it is that which everyone need* (Hardt & Negri, 2009).

The existence of neighborhoods in cities creates a kind of microcosm that translates the complexity of the environment to human scale. It creates a controlled environment for people but also for the government. Pierre Mayol speaks about *the collective organization of individual trajectories*. Furthermore, he speaks of the domain where, when the occupant leaves his home on foot, the relationship between space and time is the most favorable (Mayol, 2010). People develop thus a kind of place attachment. This *place attachment* (Graaf, 2009) refers to the way in which people are related to the environment. People don't necessarily need to have anything to do with each other in order to live pleasantly together at a place. People have something in common with other people, because they have something in common with the place where they live. By seeing someone regularly, one gets more fond of someone and thus the social distance becomes smaller (Moreland & Zajonc, 1982). This is how people lose the anonymous mask that they wear in the metropolis. They become neighbors; someone who takes the bus at the same time, who always picks up a sandwich tartare in the same shop, who goes walking with his dog at the undeveloped piece of land at the end of the street, who goes jogging at 19h30, who always collects his children from school at 16h ... It all starts with undefined space that is gradually transformed into a place, because we get to know it better and pack it with value. Reijndorp and Reinders argue that the living environment of different groups is often socially separated, but spatially often run together. People use the same space to organize their daily lives (Reijndorp & Reinders, 2010).

The Creation of a home is more than fulfilling the primary need for shelter. Architecture should also meet the secondary need of being part of the city. When both needs are realized in one place we can speak of a home. As a result it seems that prior to the creation of urban renewal projects, it's more and more necessary to understand better the daily practices of different groups (socio-economic, ethnic, ...) within a given physical space. Diverse groups of locals (from families to older) have difficulties in appropriating places in Brussels. Urban development projects within this framework tend to result in gentrification, whereby the weaker city dweller is pushed away to make room for the upper middle class (Baeten, 2007). I have tried to shift the focus more to the border of the private and the public. An urban renewal project that realizes social mobility, without the physical displacement of

vulnerable populations, should better focus on both aspects. The next few paragraphs I will present three tools that can help accomplish these goals.

3. Sharing economy

Nowadays we can say that the social fabric is dominated by private property, which makes the creation of a home feeling in a neighborhood a lot harder. The openness of the private owners to share pieces of their territory is important. A way to create a home feeling is embedded in sharing space. *The shape and design of space plays a peculiar role in the use and the behavior that goes with it. In one way or another we 'read' different spaces in the city and in the neighborhood and we form an idea based on, the location, the shape, the facilities, the organization and the architecture, about how we should behave there. Whatever space and time might mean, place and occasion mean more* (Eyck, 1962).

Sharing space can open a whole new world. A world that still provides security but is simultaneously a platform for new developments and solutions for social problems. Consequently we must get rid of the notion of cocooning. Also trendwatcher Tom Palmaerts agrees with this: *We must all rethink the concept of luxury. And after that we should go for the sharing economy* (Degryse, 2012). *This sharing economy* is based on the principle that sharing is the 'new' owning. In the Sharing Economy the focus shifts from ownership to accessibility. It starts with the question of which products and spaces we really need and which one we can share. For this, architecture plays an important role. It should create space that makes room for "sharing" and "the common". Architecture that facilitates interaction, communication and sharing produces a sustainable lifestyle. Furthermore living in the city will be much more affordable and this contributes to the accessibility of our cities. In short, 'sharing' combines a way of living with the right to a sustainable economy. This leads in turn to the right to the city and the creation of a home. A crucial step in the design process for architects is the development of space that emerges this sharing concept.

This space, which is more open for sharing, must be located between the public and private, which is marked almost everywhere in Brussels by the hard border of the Brussels facades. Why here? Because on the one hand people feel safe on this border but they are, on the other hand, also more open to others and the environment. The quest for transition between public and private is thus a crucial element in the designing of space. Space where people can take a step back on one hand but at the same time where there is room for sharing and contact with others. The program needs both, security of the private and openness of the public. Out of the literature we remember that Pierre Mayol speaks of an existential and social dialectic between the inside and the outside (Mayol, 2010). One cannot exist without the other, so why not strengthen the two together? If we could fade the hard borderline of the facade, we can reconnect

Brussels city dwellers with their city. In order to achieve this, we cannot just move the hard limit for a few meters to the inside. We need to develop an architectural language which can control the gradation from private to public. To achieve this smooth gradation we need to devise and define the diversity of living (private, community and public living).

Let's take a closer look to the different layers of living. Private living is the core, the place where people can come home, where they can withdraw, feel secure and where they can escape their busy lives. In short, a place where people can be totally themselves. It is the strong foundation from where people discover live and explore the world. Then we enter the second atmosphere, which goes a step further: living in community. The inhabitant is not alone anymore. In this second layer he shares space with some inmates, we can speak of a semi-private place. It is the place where a first facet of sharing will take place. A common professional kitchen, a library, a play area, a sitting area are examples of what could be shared here. However, some of the shared functions are open to the public living, which is the third layer. Functions that are traditionally shared by men. These functions can also sometimes be linked to social employment initiatives; washing clothes in a laundry, performing chores in a do-it-yourself studio, playing in the playground, eating at a table, growing vegetables in a community garden, ...

The gradation that arises between communal and public living, also exists between the first two forms, private and communal living. Conceptually I call them big windows, which means private places, where the inhabitants can nest individually, but where they are nevertheless overlooking the common. It's your place, but it is in direct contact with what is happening around you.

If architecture can let the public life infiltrate in people's private life, it facilitates the feeling of home. This brings about that you recognize people because you saw them several times and this gives you a more familiar feeling towards the environment you live in. This makes urban living less anonymous, without losing the privacy that everybody needs.

The final atmosphere in this story is the *'real'* public residing, which is mixed up with the public living. It tells the story about the fulfillment of basic needs that every human being, but also any network, needs: restrooms, heat, drinking water, a shelter or protection and resting points. Resting points are an important element because it handles about sitting, hanging and looking around in public space. Isn't watching and being watched the favorite pastime of men? This is why it receives a 'real' place in the streets and thus in society. Subsequently hanging around in the streets won't give rise to negative feelings. There arise thus a sort of interspace in the public. We use this interspace to make place for a layout that optimizes public residence, without separating it from the transit function. Important is that residing in public space is mixed as much as possible with the transit function, because it makes it possible for people to get information from other people without having to meet each other. *People observe, categorize and assess*

passengers (Hillesluis, 2009). *Social comfort, and thus diversity of sitting and hanging out places, are playing here a more important role than physical comfort* (Loopman, Leclercq, & Newton, 2011). Residents have more right to the city (Harvey, 2008) thanks to the creation of gradation in dwelling and as a result, they can develop themselves as sets the thesis of Ruth Hillesluis. We namely need other people and buildings to shape ourselves (Hillesluis, 2009). We really need to create space in our designs that makes this process of shaping ourselves possible. Giving a meaning to the interspace also leads to a place attachment (Graaf, 2009). This implies, that people have to do something with each other because they have something in common with the place where they live.

4. Participation

This research aims to show that through spatial intervention a framework can be created which makes it possible to control the social mobility of disadvantaged groups (versus a gentrification process that, once launched, is difficult to control by government agencies). This doesn't proclaim that we can shape society through spatial interventions, the remembrance of the failure of large-scale modernist interventions is still too fresh in our mind. What is proposed, is that prior to the creation of urban renewal projects, it is necessary to understand better the daily practices of the different groups (socio-economic, ethnic, ...) within a given physical space. Trying to achieve a social mix with a top-down approach results in a spontaneous spatial mobility. But this results in more homogeneous neighborhoods than the mixed ones that they had in mind. On the other hand, trying to understand the socio-spatial processes of different groups on the small scale of the neighborhood allows to map and understand where these different networks overlap and interact with each other. These small and everyday interactions can be used as a first step to encourage social mobility (see also Soenen, 2006). This mapping ahead is a very important step, but it certainly does not guarantee success. The city with its inhabitants is a constantly changing organism. On the basis of this research, you can create a structure that incorporates some fixed functions. But hereby, it is important that this structure is open to an eclectic and flexible use. It so happens that this flexibility allows people themselves to respond to architecture. Not everything can be contained in architecture but it creates a framework. The architecture is rather a tool than a target. Citizen Initiatives get a place. The project is, in this way, really supported by the people and this contributes to the sustainability of it.

5. Network

The interesting thing about sharing and participation is also that it allows people to be part of a network. Today everyone lives in his own private network. A network that is often the connection of one closed entity to

another closed entity and so on. Such a network is composed of a central private zone and a number of external entities, all neatly connected to each other. Around these private entities there is no or limited openness to the environment. In an open network, by contrast, the architecture is more open to the interspace which gives the public circulation spaces more meaning, so that people who do not belong to this private network can still be part of it. It is here that a democratic city, as mentioned in the literature of Spinnewijn (2004), can be formed. The proposed design should give a more democratic answer to its inhabitants and visitors. Not only residents of the design and participants of the network, but also passersby who do not belong to the network, will be able to feel part of the environment. These people will also be able to enjoy the benefits of this network, namely the arise of a neighborhood that helps people to create a home feeling.

Interculturalism (Notten, 2002) is within this private-public space something very valuable, but it is also something people have to learn to cope with. In a neighborhood where people can live comfortably together, it is important that people learn how others interact with a place or with each other. This creates, as Lyn Lofland calls them, 'familiar strangers'. *These compounds may occur between individuals. But self in the absence of human contacts objects can create paths, that feel like 'old friends'* (Lofland, 1998). Urbanity that does not allow people to transform space into a "place" or appropriate space, which creates a sense of ownership, makes it much harder for inhabitants to fulfill their social needs.

Implantation of the design plays a crucial role. It tries to involve as many passersby as possible. This is why it is important that the project addresses a variety of user types. Hence there is focused a lot on the daily routines of people. A community house for example always depends on a certain membership and engagement, and thus only attracts a limited part of the population. This is not what the design aims for. This project tries to create a social framework between obvious facilities which are already part of people's lives. This also makes the concept broadly applicable. It's impossible to fit in a community house in every street and therefore we should try to use more the existing patterns in the lives of people, such as dwelling and circulating.

This diverse group of users or passersby will all associate their own experience with the design. And this is how place attachment (Graaf, 2009) works. All those people attach importance to the same place and this is how a place can connect people that don't really know each other. It also contributes public familiarity (Moreland & Zajonc, 1982). Everything comes together.

6. Conclusion

The quest for social architecture has sent this research in a particular direction. Through the literature study I identified the 'right to a home' as a

basic right for residents of a city. Whereby a home is considered *as a special kind of place and time, by which people experience a strong social, psychological and emotional connection* (Reijndorp & Reinders, 2010). A home is of vital importance because it is the place that gives a stable base from which we, as humans, broaden our horizons.

Three important concepts, that should lead to an architectural program, were identified. First the architecture had to be open to 'more sharing' which shifts the focus from ownership to accessibility. This 'more sharing' creates an environment that is open to the other. And we need the others to develop the social aspect of the home feeling. A second concept in this article, that has exercised a strong influence on the architectural design, handles about public shareholding. This ensures that people have power over their environment. Third, I identified the urban networks as a structure that brings the 'home feeling' close to the people. The creation of an architectural network can thus infect a city with social change. Social change that gives back the 'right to the city' (Harvey, 2008) to people.

The previous concepts and research must lead to an architectural design. A design that aims to facilitate social change needs to be located between the public and the private. This is why I started from the Brussels facade where I tried to create space where a network of sharing and participation can grow. A gradation of living is created through a spatial shell. Flexibility was in this case an important starting point. This flexibility namely allows that people themselves to influence the architecture. Not everything is contained in the architecture, it creates a framework.

This research introduces an architecture that is more a tool than a result.

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Aspects of utilization and sustainability in a public space – a Hungarian example

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ABSTRACT. During my doctoral school studies I have dealt with open public spaces. One of them is the Batthyány square in the city centre which is a typical city park with many different functions, such as playground, walking paths with benches, public lavatory, lavatory for dogs, rules of road park with traffic signs for children. Therefore it fits properly to the ASPIS project examining sustainable public open spaces. In the first part of my presentation I describe the history of the Batthyány square, after that I present the assessment about the traffic of the square which was surveyed in 2011. In this survey we examined the number of the pedestrians, bicyclists, playground users, dog walkers, and the adults and mothers with small children sittings on benches. The results showed the utilization of the different functions and facilities in the park. In the second part of my presentation the results of the survey will be also described, which examine what functions are expected by the people in this park. The results of the traffic study and the survey of the Batthyány square have showed how fits the square of the requirements for the citizens in the 21st century. and why it can be called sustainable.

In the city of Győr it can be found several park and square which among each has some kind of speciality. But in the historical city center there is only one classical sense took square. From that square not far away it can be found another too, which is functioning also as a park. For a long time that square/park was the largest in the city center and at the same time the first which has the former urban planners wilfully developed. Among others for this reason has been selected for my doctoral studies the Batthyány square.

The Batthyány square can be found in the south-eastern part in the city center of Győr. The square from the east side is bounded by the quite busy Pálffy street, and from west side the Gárdonyi Géza street which traffic has also significantly increased since a few years ago thanks to the not far away found tunnel's transfer. On the east side found Kiss János, and the south side Bajcsy-Zsilinszky streets are one-way streets among others also thanks to this they has much more lower traffic then the already mentioned other two streets.

On the Batthyány square there is a lot of different function and also recreational facilities can be found. For example on the east side of the square playground, football field, and a highway code educational track for children. On the north-east corner of the square an ice cream shop was also created and on the north-west corner a public lavatory. Beside of that monuments, more bench, a dog lavatory and a selective waste collecting

island also can be found on the square. Due to its location in the city center several public institutions (e.g. County Sport Directorate, Doctor's office, Health and Medical Officer Service, etc.) the University of West-Hungary, a shopping center, restaurants, and other different shops and businesses too can be found in its near.

The development of the square can be made of the 19th century this time (in 1820) has began the demolition of the castle walls and the bastions around the city. The Batthyány square was developed in the right place of the castle's south-east bastion probably because that during the demolition disturbed soil should not placed new building funds. Therefore under the square probably also can be now remains of the former bastion. But not just the bastion but also of the ramparts because once there have run along the castle surrounding ditch system. However in 2007 on the south side of the square archaeologists have discovered the remains of a Roman cemetery.

The course of the time the square was used for different purposes. On the north-east corner for a long time functioned a horse farm, then gardens (blackberries) was created on it, and later it has become a market. Before in 1907 began landscaping and settlement it was an animal fairground. Another interesting feature of the square was that in the early 1800s the former scientist mayor of Győr János Czech had on this area the so called pheasant garden. The garden was famous from that in the city Győr found former Roman altar and tombstones were there presented so that was the first outdoor museum of the country.

The name of the square has changed a lot during the time, in the beginning of the 19th century its called Ferenc square than Main Road street square, and at the time of the 1848/49 war of independence sometimes New square, sometimes New Market square. Later they call it Blackberry square than in 1907 renamed it even the today known Batthyány square.

Over the time there was apparently a lot of other functions on the field of the Batthyány square and accordingly it was used for many things. That is why it was interesting to examine that in the 21st century how it is used.

The examination of the square took place between 11 and 15 April 2011 on three different times, three different days. The three selected days were Monday, Wednesday, and Friday because probably on those days was the largest the traffic on the square. The three time were 9:00-10:00, 13:00-14:00, and 16:00-17:00 15 minutes breakdowns. Before the examination of the square all bench were counting from which were 44 pieces.

During the examination has been count the number of the pedestrians, bench sitting, and the bicyclists separately of adults and children too. The children were under 18 years of age. Besides of that was count also the number playground users and the dog walkers. From the results turned out that in the studied time points in every quarter-hour more than 50 adults goes through the square. Considering the average of the three days it can be said that a quarter of an hour 63 people walks through on it. Therefore if we assume that

8:00 am and between the close of the downtown shops 18:00 pm the traffic is the largest on the square, than on the questionable 10 hour average 2520 person walking through it, so the total population of a smaller Hungarian village. So it can say that the pedestrian traffic on the square is significant. But in the case of the children the situation is not so clear. Because on the first examined day an average 18 person, on the second 8, and on the third 48 children are walking through in every 15 minute on the square. Considering the average of the three-day that means 25 person in every quarter-hour which is half compared to the adults. This is all the more interesting figures because not far form the square it can be found several school and kindergarten too. Similar to the adults taking account of the 10 hour traffic average 1000 children turns around on the square.

In the case of the bench seat in three days has not sat down more adults than 20 person as well as more children than 5 person in the examined 15 minutes. On average in three days 7 adults and 3 children has sitting down on the bench in every quarter-hour. So between 8 am and 18:00 pm in average 280 adults and 120 children. The benches are usually used to sit for 2 people, so if we looked an hour then the 44 benches ensures for 88 person relaxation opportunities. And from the measured data an average 28 adult and 12 children so together 40 person sat down in an hour. The number of the benches can be said appropriate on the Batthyány square because if we considering the maximum 20 person adult even that means 80 person in an hour which is still less than 8 by the benches offered relaxing opportunities.

The number of the bicyclist from the three days neither has reached the 10 pieces. On the three day average 12 adults and 8 children has cycling through on the square in an hour. Now this number doesn't seem significant but it must be noted that on the square there is no designated cycle path and bicycle storage either. To the children only on the south side of the square found kindergarten highway code educational track provides opportunity for cycling. But on the educational track the children could learn about the significant traffic signs and basic rules of the Highway Code. But in order to avoid for the future bicycle accidents and pedestrian-bicycle conflicts it would be practical to develop cycle paths on the square.

The playground on the average of the three days in every quarter-hour was used average by 10 person which means that in an hour 40 person. So the playground is very popular which showed the best that during the examination on one day in 15 minutes 24 person was stayed on it.

About the number of dog walkers it can be said from the Batthyány square that in every quarter-hour they were an average four, in an hour 12. And this is a quiet high figure which corresponds to the number of the adult bicyclists. On the square it can be found a dog lavatory but because of the high number of the dog walkers it would be considered to develop on it a smaller dog running too. This makes appropriate too that a lot of children are playing on the playground, and turns around on the square so hygienic and safety point

of view it would be definitely beneficial. Besides of that the square has such an area where less financial and practical intervention could be creating a dog running.

It belongs to the other defect of the Batthyány square that it is not well maintained. To the maintaining of the square is responsible of the GyőrSzol Zrt. but for example on autumn days it happens, that the fallen leaves are not pulled together. And to the north-west corner of the square located public lavatory often can not be used because it is closed. Furthermore problem that one of the cities selective waste collecting island was placed in font of the public lavatory which are not well maintained. Unfortunately most of the bins were pry open so it is often case that around them in significant quantities can be find waste. However it was not created for the bins a suitable place before the public lavatory where they can be stored.

On the east side of the square located football field is very popular especially among schoolchildren. Therefore it is a major problem that until today it has still asphalt surface which availability status also can't be called appropriate. Because in many places it has sunken so after rainfalls it remains larger puddles back and a lot of cracks can be found on the surface.

What should be noted in any case in relation of the Batthyány square that since 2009 it is forbidden the smoking on the whole area of the playground and within 5 m of it. Thanks to this it is ensured the health protection of the playground using children.

However it raise the question that what can be important to the citizens on a public open space or a park? What are those functions that they would welcome on it and what are that services or possibilities which have to be prevail on a square or a park. To determine it an I made survey have give answer. The research from June 2012 held until September 2012 in which total of 84 people managed to ask. 64% of the questioned were female and 36% male. Considering of the educational level 67% had university/collage, 19% high school/polytechnics, 9% gymnasium, and 5% skilled worker qualification. Considering of the occupation 70% had identified themselves as subordinate employee, 15% university student, 5% entrepreneur, 4% employee in senior position, 2% unemployed and as a 4% pensioner. Considering of the age in significant number 63% of the questioned were between the age 21 and 30. That was followed by 20% the 31-40 year, than 9% the 41-50 year and with 4-4% the 51-60 and between the 61-70 year age group. Among the respondents was not represented themselves under the age 14, between 14 and 20 year and over the age 71 generation.

The first question which was concerning to the open public spaces was looking for the answer that which are the functions that the questioned would welcome on a public open space. Here during the respond form the listed functions could be selected maximum three. The results have showed that most of the people would like to see bench (86,9%) and plants (85,7%) on a public open space. Far from that behind but third 45% of the questioned had

marked the fountain. Interesting way behind of that with 20% was followed by the drinking fountain (with 25%) however bicycle storage and tourist map would like to see only the 17,9% of the respondents in a public open space. This is all the more interesting because the open public spaces could offer the best opportunity for tourists that they could be easily informed in a foreign city if it has a clear and informative tourist map. And the bicycle storages could ensure the liveable and sustainable transport development in the large cities where thanks to the more and more passenger cars continuously increasing the number of traffic jams and decreasing the parking places. Therefore the bicycling as alternative transport mode supporting measure could be, for example if to the work and to school striving would ensure the bicycle placement in the nearby open public space.

In our modern society more and more spread the possibility of using wifi in various public institutions clubs, hotels, public transport vehicles etc. Therefore in certain open public spaces it would be worthy to have also wifi service. The local inhabitants or the tourists could be on that way easier and faster become that actual information which they needs. But from the open public space welcome functions only the 13,1% of the questioned had marked the wifi usage. This has several number of reasons (don't know the wifi service, unclear the question of financing etc.), but it would be worthwhile to conduct further research on this subject.

To the open public space related functions question served as other curiosity that nobody has marked the advertising column. Although the advertising column could help for example in that those could find information from each settlements programs who don't have smart phone or internet such as the elders. But for anyone could offer useful information because on the advertising column not just the advertising leaflets but also the various events programs could also include.

In the other category together four people has marked such further functions which should have an open public space. Three from the questioned people has recommended the refuse bin and one person the public lavatory.

The following two questions I was searching for the answer that what should prevail on an open public space or a park. In contrast to the previous question this included not just the functions but everything what can be expect in the case of a square or a park. From the listed options could be choose maximum five.

In the case of the open public space for the 83% of the questioned were important to offer an opportunity for relaxation and recreation. Interesting way as the second it was followed by 67,9% that they should have in the near restaurant or some kind of catering facilities with terrace. As the third with 64,3% temporary events held on the open public space were marked. From that just one percent (63,1%) behind that nearby of the public open spaces should be a public lavatory. This is all the more interesting because

between the previous public open space functions question were not included as an option the public lavatory but in the other category one of the respondents has selected it. But in the present question it was listed as a choice and more than 60% of the respondents had designated it.

The other aspects which could have an open public space all remained under 50%. Only according to the season placed ice cream shop and mulled wine had reached 40,5%. This was followed by 38,1% that it should have bicycle storage. The functions question also had featured the bicycle storage where 17,9% of the respondents had marked that they would like to see it on any of the open public space. The different rates probably results from the fact that in the case of the functions maximum three could be selected from the listed options and by the current question maximum five.

Similarly 25% -25% had marked that nearby of the open public space should have stores, shops, and bus stops. Similarly to the functions only 20% thought that it is needed internet possibility on a square and even less 10,7% that it should provide car parking possibility. So most of the respondents by foot and not by car or any other public transport wishes to approach an open public space.

In the case of the parks similar to the open public space the 91,7% of the respondents has marked the opportunity for relaxation and recreation. But in contrast of the open public spaces by the parks this rate was more than 8%. After that the 77,4% of the questioned has marked playgrounds which has followed with 72,6% the varied flora. Apparently for the people is not only important that a park should be get more and more various trees, bushes, flowers, etc., but it must have a playground too. Similar to the public open space in significant number (56%) were marked the public lavatory.

41,7% of the respondents it was also important that in a park could be playing sport. Therefore it is good if it could be found on it for example a football field or a basketball court.

However almost 30% had thought that every park should be have a smaller snack bar, ice cream shop too. This was followed by the importance of the placement bicycle storage with 28,6%. But interesting way a quiet few wants (23,8%) that in every park should be have selective waste collecting container.

During the pedestrian traffic examination was turned out, that in every quarter-hour an average of 12 person was walked a dog on the Batthyány square. Therefore it is interesting that only the 10,7% had thought of the respondents that it would be needed a dog running in the parks and 9,5% that dog lavatory also. Although the number of the dog walkers would exactly the opposite of this justify.

The development of the car parking (7,1%) and bus stops (13,1%) similar to the open public spaces in the case of the parks also had become low support. In the other category three person had give further additional

aspects such as a park should be held clean, maintained, and organized with drinking fountain.

During all three questions in an interesting way was not been found the question of safety in the open public space. This has probably several reasons including the fact that in the Győr living citizens thought to be safe in the city located squares and parks. Compared with the ASPIS public open space assessment tool the so called "Star Rating Tool" during the survey received feedbacks besides the question of safety, the public participation neither was included among them. Because from the further functions and aspects provided by the questioned each of it has affected in some way in the ASPIS Star Rating Tool listed categories.

Summary

In the city center of Győr located Batthyány square it can be said that it has a significant traffic and by of it provided functions are properly utilized. At the same time it has also weaknesses the square which mostly affecting the maintaining. Therefore smaller renovations and transformations also would be needed because it was already mentioned it is in bad condition for example the football field and the public lavatory functions not well. But it would be needed to designate a cycle path and the organization of the waste collecting containers environment also. This renovation work at the same time don't needs large investment and next to the appropriate maintenance could be ensure that it can be used for a long time.

The survey has showed that to the urban population is the most important that an open public space or a park has to provide relaxation and recreation opportunity. But in both case was also important to have varied flora, trees, bushes, flowers, etc. And this would match with the pervious studies statement which according the urban people needs that some way it would be ensure their connection to the nature. For this in the city the best place could be the open public spaces and parks.

Both of them have appeared the importance of social experience because in the case of the open public spaces the events and in the case of the parks the playgrounds and sport fields could provide that. But what was more interesting that the respondents in the case of the squares and parks had pointed that it is required that both of them should have a public lavatory.

About the result of the survey the Batthyány square fully corresponds with the expectations of the respondents. Because it has all the functions which significant number of the questioned expects form a park. Therefore if the Batthyány square would be converted abut the above mentioned aspects or renovated, next to the appropriate maintenance it could become by the project ASPIS also supported real sustainable public open space.

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