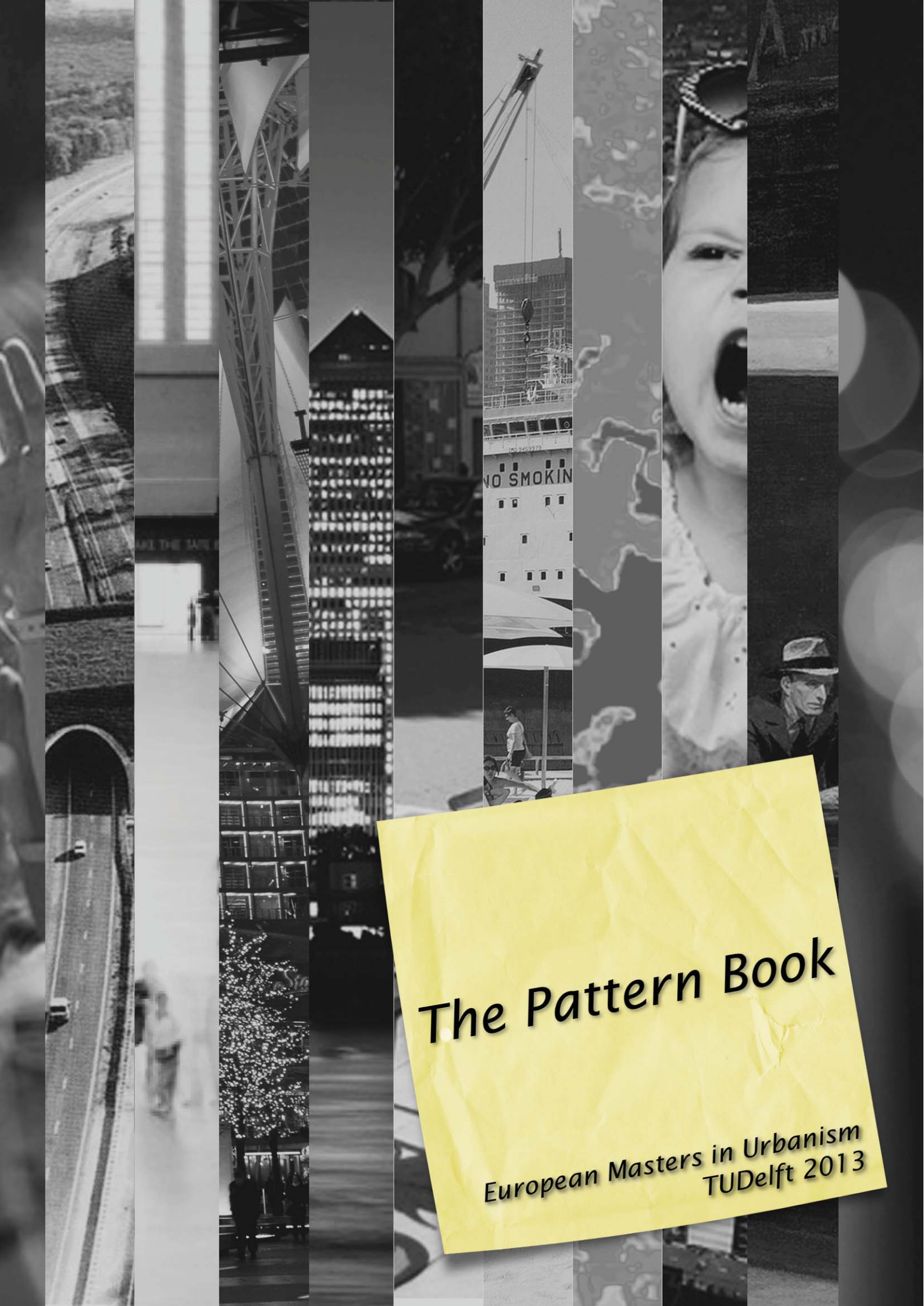

The Pattern Book

European Masters in Urbanism
TUDelft 2013

Colofon

EUROPEAN POSTGRATE MASTERS IN URBANISM
Strategies and design for cities and territories

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Introduction

When designing, we often build up a complicated process. Still, we are the ones who make it complicated, by our confused observation and obsessive chase for solutions. Here I intentionally used the word complicated instead of complex. The design process, from assignment, through analysis, and to outcome and reflection, is a complex story. The field of study even more complex. However the process can be reasonably simple, or overcomplicated, depending on one's approach to it.

We become more and more aware of this complexity, of the impossibility to have a calculated, precise overview. Most of us regard it as chaotic, however exactly this characteristic makes it interesting, intriguing, creative, and surprising. The method of working with patterns experienced in our course is eye-opening to any designer who is brave (and naive) enough to try to find precise solutions to complex issues. Maybe not only the tool itself, but the position taken towards complexity is the most important here.

A large quantity of information gets collected during the design process. We try to organize it into a coherent whole but we soon realize that it is impossible to control it, that there's no absolute whole. Do we have enough? Is it relevant what we have so far? What is missing? Is this the right track? These are some of the questions that arise as a reaction to such large quantities. The patterns deal with these uncertainties by simply not claiming to be rigorously organized and finished. The information is added to the designer's toolbox in a random and incremental manner, thus leading to a field of possibilities, rather than a precise end product. In this sense, the patterns have some specific qualities that make them so suitable to deal with complex questions:

PATTERNS ARE CONCISE. There are two reasons for the reduced length of a pattern. On one hand, it forces us to record the most relevant information. On the other, it is important not to spend too much time on it. It is only a tool, not a product. The time spent on it should feel as the part of the process not an additional struggle to collect information.

PATTERNS ARE MULTIFACETED. Each pattern is expressed visually, conceptually, theoretically, and practically. The title, together with the image, must be sharp, identify the pattern and makes us remember it. The hypothesis tells the whole story in a very compact way. The theoretical backup provides objective argument and credibility to it. Finally, the practical implications are meant to outline the practical consequences of designing with the hypothesis.

PATTERNS ARE INTERCONNECTED. The pattern field
is the overview of the collection. Based on a 2dimensional (or more?) criteria, the patterns are arranged into a field and connected to each other. It shouldn't be done after the patterns are all written, but during the process. Patterns may be rearranged, new patterns might appear, others might merge or be split. Therefore the pattern field is dynamic. It is part of a recursive process.

PATTERNS ARE SUBJECTIVE. Just as the designer who writes the patterns will record a different set of ideas, the designers who follow them will each chose a different path within the pattern field. This is the result of an apparently random process and it can only be explained by referring to the assumed subjectivity of the method.

PATTERNS ARE OPTIMISTIC. We make them prospective in a positive way, rather than pointing out negative aspects. Of course, we discover numerous problems, but in a pattern we try to explore the way that these problems can be addressed in a positive way.

PATTERNS ARE EVERYWHERE. How do we come up
with patrons? Some might record critical issues of their design; some might have a hunch; some will start by reading and spotting relevant theoretical issues; some might just look around and base their

SCALE

CONCRETE

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Socio

Economic

Environmental

Technology

Philosophical

Urban Planning

Policy / Program Oriented

Urban Design

Creativity / Aesthetics

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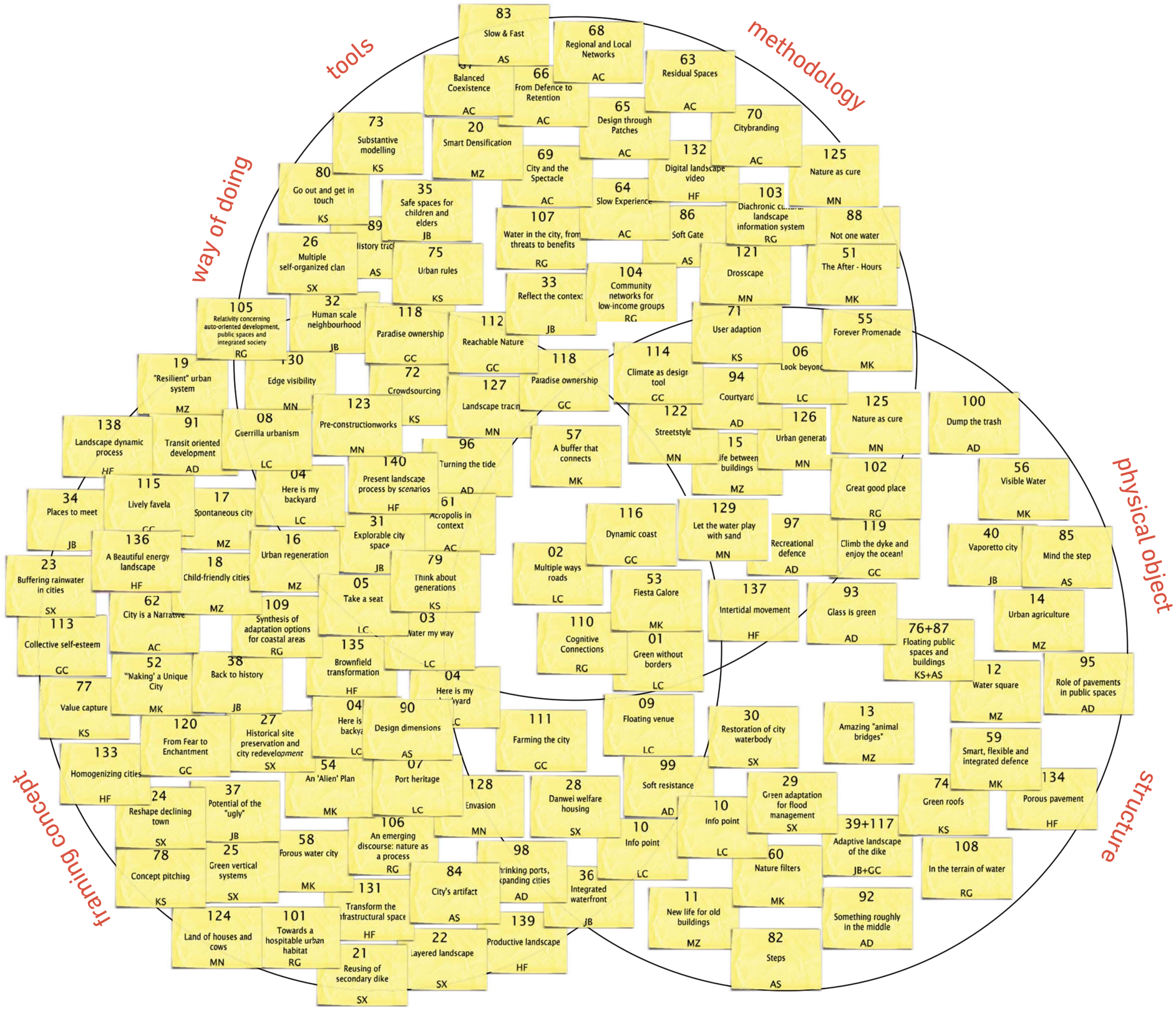
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physical object
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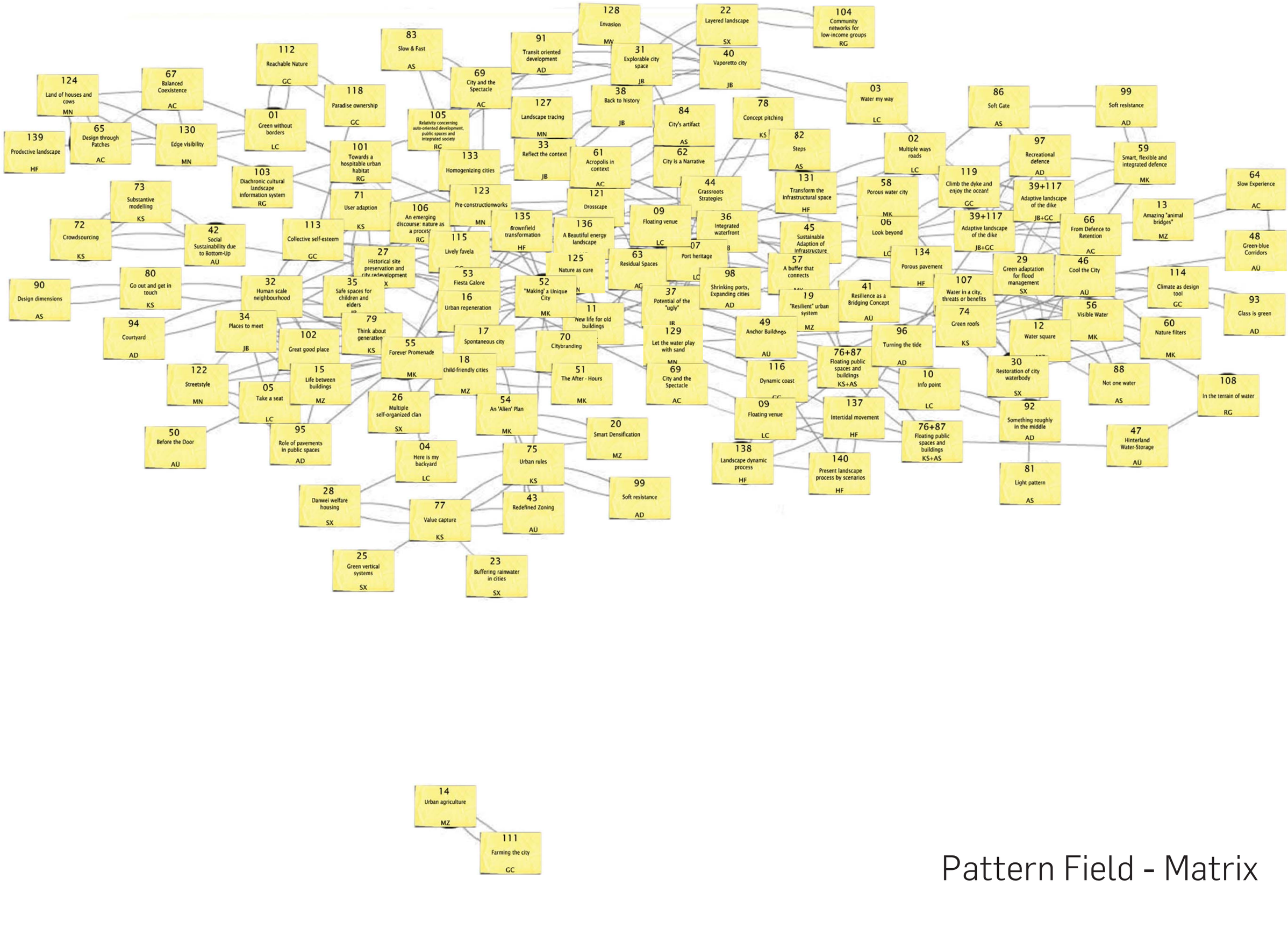

Pattern Field - Matrix



View of Rotterdam from the polders
Luiz Carvalho

01
Green without borders

...radical architects as well as the municipality might do well to rethink the rural as they try to hold on to the city as city. The rural is not trees and fields any more. It is on the way to data.
(Spivak, 2000)

Hypothesis

Rural areas in the vicinity of large cities are an integral part of cities green system. Green spaces must infiltrate into the urban fabric, reconnecting urban green to larger rural areas.

Theoretical backup

The megacity initiative, in all its forms, tries to lift the interdiction, give the urban a "proper" access to globality via the electronic, and transform the "rural" into a metaconstitutive outside for the "urban." (Spivak, 2000)

The relation city-green in the Netherlands in the past was definitively more stable and balanced, but only because the dependence and integration of both parts was more evident. In the recent past the attempt to prevent urban sprawl over green areas has created hard borders that prevent a better use of open spaces by city dwellers.

Practical implications

The debate around preservation of open spaces versus urban sprawl must be refined, planning must take into account other factors then the mere preservation of green areas, such spaces must be planned and designed as integral part of city fabric.

In the current setting of increased pressure due to climate change, economic crisis and governance review, the role of green spaces must be also reviewed. The first step would be to recognize that the verdant meadows are as dependent on technology as the cities and therefore they are part of a single complex network of infrastructures.

LC

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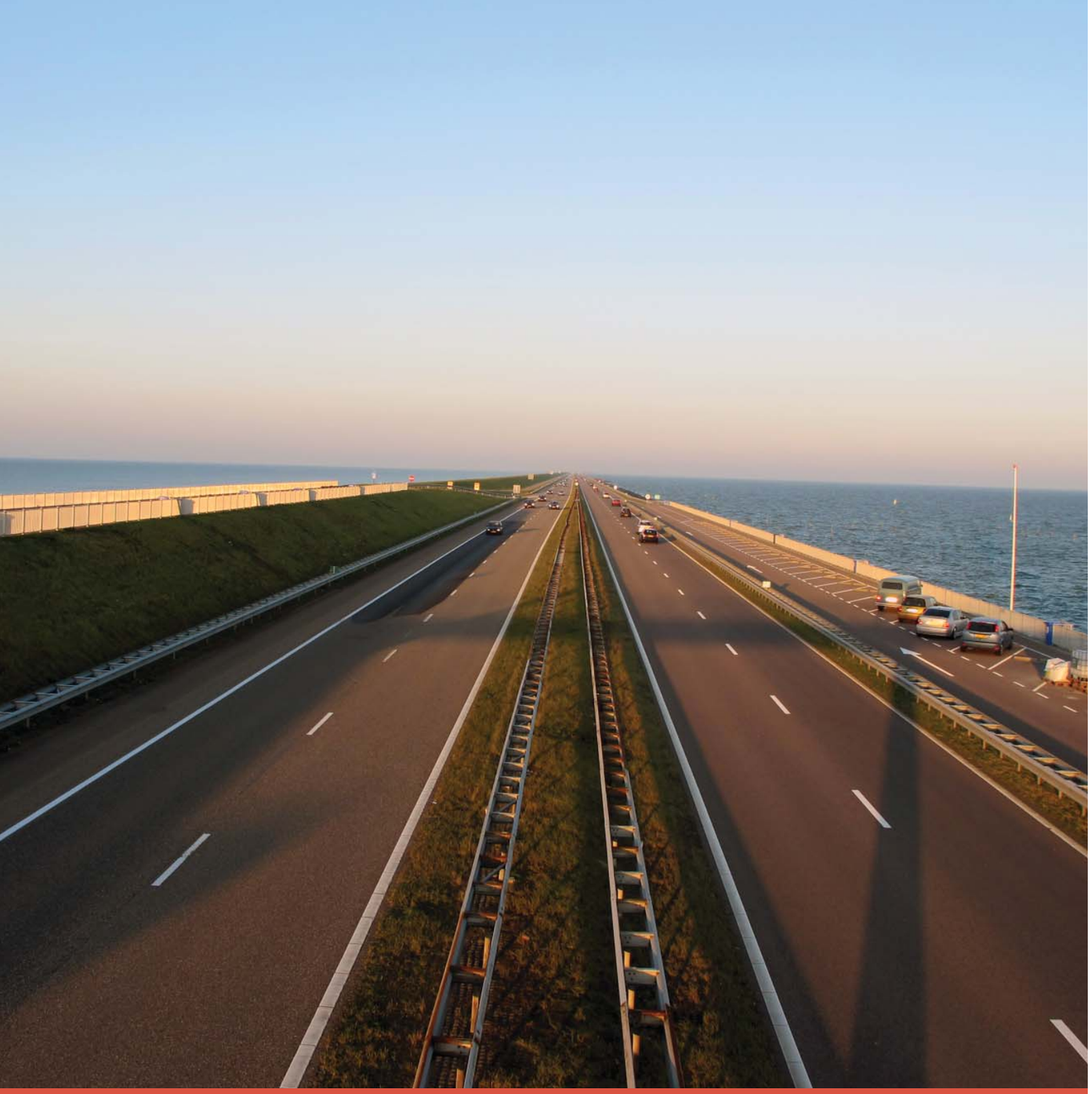
See also

67 - Balanced coexinstence
112 - Reachable nature



Afsluitdijk
Luiz Carvalho

02
Multiple ways roads

Infrastructure works not so much to propose specific buildings on given sites, but to construct the site itself. (Allen, 1999, p. 54)

Hypothesis

Built structures must be capable to deal with more than their obvious functions, in a future haunted by global warming and extreme weather, infrastructure must be multifunctional.

Theoretical backup

Infrastructure prepares the ground for future events. Its primary modes of operation are: the division, allocation and construction of surfaces; the provision of services to support future programs; and the establishment of networks for movement, communication and exchange. Infrastructure medium is geography. (Allen, 1999, p. 54)

Practical implications

Road design must contemplate another set of demands, for example elevated roads must be capable of divert, store and steadly release water from heavy rainfall. This network can also play a double role as a secondary line of dikes.
Acting as sponges, this road system can help to balance the water level in the regions, storing water in the rainy seasson and releasing it in the drought periods.

This means that in order to develop integrated projects for the sustainable development of the built environment, urbanists and architects ought to enlarge their 'working field' to the so-called technical professions by constructing common ground, by breaking down disciplinary barriers and by approaching mobility as a new cross-disciplinary domain. (Calabrese, 2004, p. 24)

LC

See also

39 - Landscape the dike
117 - Adaptive dike
131 - Transform infrastructural space

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Delftse - Schie
Luiz Carvalho

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03
Water my way

In the seventeenth century this network of cities as hydraulic construction within a landscape was perfected to the highest level that technology allowed. Waterways formed the supporting structure of the cities as well as the most important connection between them. The canal network enjoyed international prestige owing to the punctuality and comfort of this type of public transport. (Hooimeijer, et al., 2005, p. 13)

Hypothesis

Public transport must be reintroduced in the dutch system of waterways, canals and boozers.

Theoretical backup

In the Netherlands there is a huge system of waterways, canals and boozers that are far from being fully utilized. This network that was dominant in the past is now relegated to a second role, acting more in terms of water management and reduced transport of cargo.
The system is however well maintained, constant dredging and the existing infrastructure of locks, moving bridges and quays is compatible with the use of the water as public transportation.

The coinciding of urban and regional water systems meant that 'machinery of civil engineering works' was getting through both systems simultaneously. The boat-canal network is strong evidence of the regional coherence within the water system, and therefore of the Netherlands as a 'water machine', and at the same time provides evidence of a large economical involvement. (Hooimeijer, et al., 2005, p. 170)

Practical implications

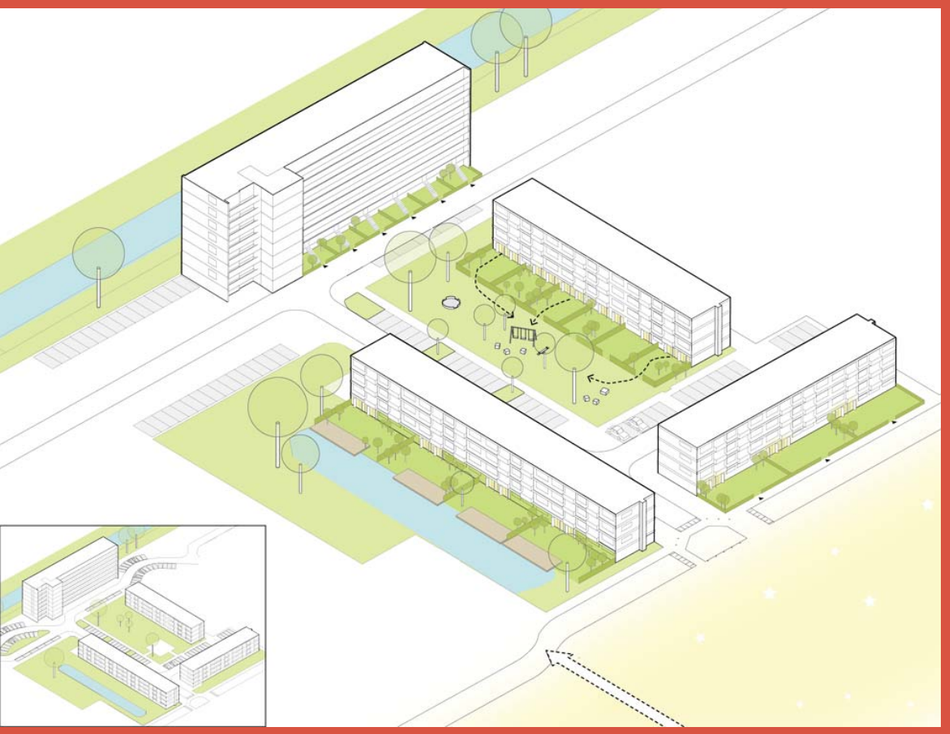
Public transport must be reintroduced in the existing network of waterways, specially along the lines connecting cities and countryside. However this must be done taking into account that a water bus system is by definition not designed to replace or compete with modals such as buses or metro, on the contrary, it is more suitable to work with those types of public transport in a close collaboration.

The option for water buses does not follow a mere offer - demand equation. One should not evaluate the relevance of this proposed mode only by measuring figures on capacity of transportation; other aspects must be taken into account like the historical importance of waterways to the cities in the region and how this transport system can help to raise awareness on the major role of water in the near future.

LC

See also

40 - Vaporetto city



Upcycling Ahoy
Zandbelt & van den Berg

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04
Here is my backyard

Reformers have long observed city people loitering on busy corners, hanging around in candy stores and bars and drinking soda pop on stoops, and have passed a judgment, the gist of which is: "This is deplorable! If these people had decent homes and a more private or bosky outdoor place, they wouldn't be on the street!" That judgment represents a profound misunderstanding of cities. It makes no more sense than to drop in at a testimonial banquet in a hotel and conclude that if these people had wives who could cook, they would give their parties at home (Jacobs, 1961)

Hypothesis

Vast empty spaces around modernist housing blocks have potential to be transformed to be largely used and to contribute to urban dynamic and natural surveillance.

Theoretical backup

Urban vitality as well as natural surveillance is directly resulting of the diversity of functions and users of a space in time. That is far from what can be observed in most of housing complexes built specially in the 60´s.
Here there are large green spaces, however these spaces are not fully appropriated by the residents that find it difficult to relate to generic and anonymous spaces.
At the same time there is a growing demand for apartments where private spaces are connected to green. This pattern deals with the opportunity to bring a new dynamic into housing blocks, dealing with use of green space, social control of public space and making room for new functions.

Practical implications

Green spaces around housing blocks will be redefined; some parcels of the land can be privatized, connected directly to the units on the ground floor. Other functions can be introduced on the ground floor such as commerce and services. The main objective is to bring a new dynamic and particular character to the green spaces by improving the use of the ground floor of the buildings, changing areas from no man's land into 'my backyard'.

LC

See also

20 - Smart densification
28 - Danwei welfare housing



http://theshot.coffeeratings.com

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05
Take a seat

...Nobody enjoys sitting on a stoop or looking out a window at an empty street. Almost nobody does such a thing. Large numbers of people entertain themselves, off and on, by watching street activity. (Jacobs, 1961)

Hypothesis

Public spaces are not only parks and squares; the conscious use of public areas can be triggered by simple interventions like placing a chair in a sidewalk.

Theoretical backup

Public urban space is scarce, furthermore there is a tendency to concentrate efforts in creating larger areas instead of small scale interventions, what makes difficult to implement new public areas in consolidate cities. On the other hand there is a crescent awareness of the importance of public mobilization in order to claim for more life quality in the cities.

Wherever there are people – in buildings, neighbourhoods, in city centres, in recreational areas, and soon – it is generally true that people and human activities attract other people.
People are attracted to other people. They gather with and move about with others and seek to place themselves near others. New activities Begin in the vicinity of events that are already in progress. (Gehl, 1980)

Practical implications

Citizens will be stimulated to think of new ways to use public space, sidewalks, vacant lots, street corners. Trough small actions that can start by bringing your own chair to a sidewalk and reading a book, gathering people around alternative ways of appropriate public space.

LC

See also

55 - Forever promenade
102 - Great good place





Kunstfort Vijfhuizen
source: www.transartists.org

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06
Look beyond

Hypothesis

Art installations can bridge the visual barrier created by dikes, reconnecting people in the protected area with the sight of the waterfront.

Theoretical backup

Pushed by sea level rise and other water related risks dikes are being expanded and heightened. That process creates safe areas inside the dike rings but at the same time these areas are cut off from any visual relation with the water courses. Furthermore that disconnection can result in a false sense of safety or in a distorted perception of the water only as a threat.

At the same time there is a crescent call to minimize the impacts of new dikes and to merge technical and safety solutions into the landscape.

Practical implications

Land art among other urban artefacts can be implemented along dikes, in strategic places where villages or neighbourhoods have lost visual connection with waterfronts.
These objects can also provide to those inside the dike ring a clear perception of the water level on the outer side, playing a double role of land and art and safety monitor.

LC

See also

39 - Landscape the dike
119 - Climb the dyke and enjoy the ocean!

07
Port heritage

... city areas with flourishing diversity sprout strange and unpredictable uses and peculiar scenes. But this is not a drawback of diversity. This is the point ... of it. (Jacobs, 1961)



Cape Town port
Luiz Carvalho

Hypothesis

A working port does not necessarily prevent the urban renewal of former docks inside cities, on the contrary it must be seen as way of retaining identity to the place.

Theoretical backup

Many cities around the world have their origins and development directly connected to port activities. However pushed by changes in economy and nature of port activities many of those cities experienced the creation of vacant and decay areas.
In the last decades, a wave of projects dealt with former harbour conversions, and former ports are gradually been incorporated by the cities.
One aspect that is common in the most successful cases of renewal of port areas is the retention of certain port activities at the same time that new functions are incorporated.

Practical implications

This pattern intends to reinforce the notion that port activities are part of the cultural landscape of the cities and therefore they must continue to be part of it even after urban renewal.
Urban planners and stakeholders involved in port areas transformation must take into account that the maintenance of some of the original port activities can have positive effects. Among other things it can the contribute to avoid the image of 'theme park'.

LC

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See also

11- New life for old buildings
36 - Integrated waterfront
62 - City as a narrative



Sugar beach - Toronto Canada
source: flickr - http://www.flickr.com/photos/reciprocal_pronoun/7890145832/

08
Guerrilla urbanism

Hypothesis

Vacant post industrial areas inside urban fabric are an opportunity to improve public space and mobilize community.

Theoretical backup

Bottom up initiatives are more and more seen as a way to come up with solutions to spaces that are not immediately acknowledge by the formal market. In the contemporary city it is no longer a surprise to discover spatial quality in unusual places hidden in brownfields.

Examples like the Landschaf Park in Duisburg Germany shows how obsolete industry areas can be re-incorporated to city life trough public participation. Like in this German example, the potential uses of an area can be pointed by spontaneous engagement of the local population.

Practical implications

This pattern proposes for example the reuse of vacant plots as urban beaches, transforming docks into public swimming pools, quays into piers and built banks into sandy beaches.

City planning must praise and enable bottom up initiatives that aim the alternative and temporary use of spaces in vacant industrial zones or port areas.

In other words public initiatives of temporary character can be incorporated by official planning.

LC

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See also

63 - Residual Spaces
135 - Brownfield transformation



Floating opera stage - Bregenz Austria
source: http://presse.bregenzerfestspiele.com

09
Nomad floating venue

Hypothesis

Itinerant floating structures can provide cities along water courses with a venue for cultural activities.

Theoretical backup

In times of economic crisis were resources available for cultural activities are scarce the discourse of sharing and cooperation is reinforced. At the same time many regions have a network of cities integrated by an extensive water system.

These regions where cities have a certain potential for tourism but lack resources can benefit from the establishment of a circuit of complementary cultural activities.

Practical implications

This pattern proposes the creation of floating structures that can travel from one city to the other, providing space for cultural activities.
Cities must cooperate in sharing resources and to establish a calendar of activities, city planning must provide spaces where these structures can be attached to the city adding value to existing urban spaces.

LC

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Available at: http://usj.sagepub.com/content/41/10/1931.short

See also

69 - City and the spectacle
76 - Floating public spaces
87 - Float means flexibility



Info point - Berlin Germany
source: http://static.panoramio.com/photos/original/19434551.jpg

10
Info point

Hypothesis

A place to display to what extent cities are sustainable, with clear indicators of the whole cycle of energy, water and goods consumption and waste production.

Theoretical backup

There is a growing awareness about energy consumption, lamps, cars and even houses are now labelled according to its performance and economy. However when it comes to cities or regions it is not so evident, how much electricity was spent in the last week in the region one lives? The call for sustainable consumption demands that these figures are of public domain.

Practical implications

This pattern provides cities with a place where indicators about water, energy and goods consumption, production of waste among others can be displayed. These indicators can also help communities to engage in sustainable actions, working as a way to measure achievements and to foster a competition among villages.

Cities or districts with best results in terms of the balance between consumption / production fugures could also be reward by local administration with public amenities.

LC

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See also

49 - Anchor buildings
92 - Focal point in public spaces



Museum Shipyard't Kromhout inside space– Amsterdam now
Source: http://meetmrholland.wordpress.com/tag/amsterdam/

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011
New life for old buildings

Hypothesis

The functions of old buildings should be changed over its life cycle to adapt to the inevitable evolving needs of its end users.

Theoretical backup

Buildings must remain efficient places to live and work to ensure real life-cycle value. The first real challenge for cities is how to make adaptable buildings without creating unnecessary redundancy and without significantly increasing the initial cost. The second challenge is the re-use of old vacant buildings - left by their tenants because they no longer fulfilled their needs. In this matter, old buildings deserve a second chance in their life cycle and at the same time emphasize their historical values to improve the identities of cities. (Public technology, Inc., 1977)

Some very successful examples have already been implemented in some places like the Museum Shipyard Kromhout in Amsterdam. The historic Kromhout shipyard is robust and industrial, surrounded by old ships. The venue exudes the maritime history of Amsterdam, and was fortunately saved from demolition in 1975. It currently is a unique meeting and event venue, taking you back to the old days of traditional craftsmanship.

Practical implications

One aspect is planners should pay attention to the social context, historical context, economic values and cultural balance of those old buildings. Appropriate use helps to recall citizens social memories for their cities and improve the identities of neighborhoods. Another aspect is the reuse of these old buildings should be diverse and variable which means people may definite the functions of these buildings by themselves. There is a wide range of uses and programs that could be included from exhibition, office, dinner party to leisure spaces. For that it is necessary to put some deformable furniture and stages to these buildings which can be transformed to different uses.

MZ

See also

007-Port heritage; 037-Potential of the “ugly”; 051-The After - Hours; 125-Second generation.



A detail from the cover of De Urbanisten and the Wondrous Water Square.
Source:http://architectureau.com/articles/de-urbanisten-and-the-wondrous-water-square/

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012
Water squares

Hypothesis

Water storage could be considered in local scale by adding water plazas in public spaces and those can also attract people and improve the urban environment at the same time.

Theoretical backup

With 60% of the country living below sea level, the Netherlands has developed sustainable water management systems to cope with changing weather patterns and extreme downpours. Green roofs and flood controlling water plazas are some of the measures helping Rotterdam to stay ahead of the game.

Following the European Framework Directive on Water, Rotterdam is working towards improving existing open areas of water through the use of collective measures. In the near future, the city plans to segregate the current sewerage system in order to establish a system where wastewater can be separated from relatively clean rainwater.

There is no denying that water is an important means by which the quality of Rotterdam as an attractive city is established. Together with various partners and the right expertise, Rotterdam aims to strengthen its position as the water city of the future. With a holistic approach to managing the city's urban water systems, Rotterdam serves as a stellar example as to how delta cities can cope with the changing environment.

Practical implications

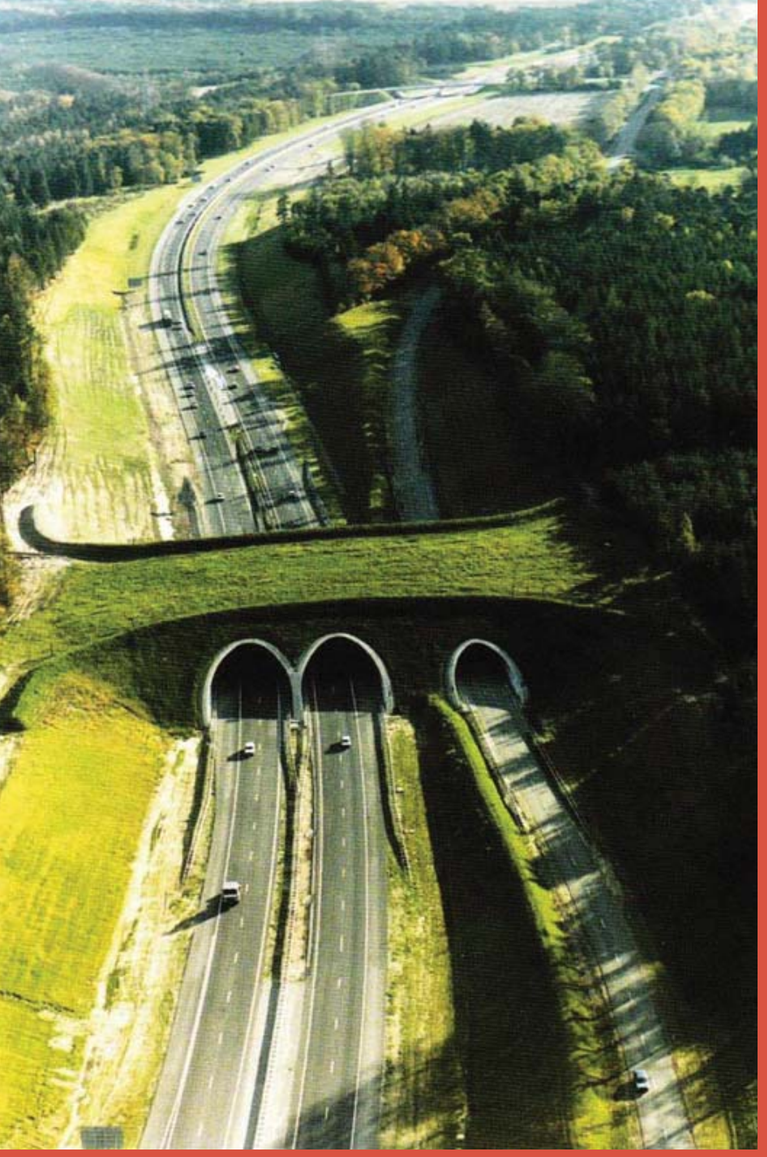
Cities are also studying possible locations for the construction of water plazas. These water plazas will fill up in a controlled manner during heavy rainfall, preventing surrounding streets from flooding. In dry periods, these water plazas can be effectively used as open public spaces.

Rainwater remains in the watersquare until it can be discharged into the nearest water body. Short cloudbursts create streams, brooklets and small ponds that allow children to play in and around the water. During prolonged downpours, the watersquare will gradually fill up until the sports fields are flooded and the square becomes purely a water storage basin.

MZ

See also

029-Green adaptation for flood managemant; 030-Restoration of city waterbody; 046-Cool the City; 088-Not one water; 092-Something roughly in the middle.



Animal bridge in Netherlands - Highway A50
Source:http://twistedsifter.com/2012/07/animal-bridges-around-the-world/

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013
“Amazing animal bridges”

Hypothesis

“Animal bridges” across the highway can create connections or reconnections between habitats and combate habitat fragmentation.

Theoretical backup

Highways act as barriers, preventing the animals reaching certain areas for food, water and disrupting mating rituals. Animals bridges, which may also be known as ecoducts or wildlife crossings, are structures that allow animals to safely cross human-made barriers like highways. They also assist in avoiding collisions between vehicles and animals, which in addition to killing or injuring wildlife may cause injury to humans and property damage. It has been reported that vehicle-animals collisions costs the United States a staggering $8 Billion a year. (Anon, 2012) A wildlife crossing is the broadest term and can include: underpass tunnels, viaducts, overpasses and bridges, amphibian tunnels, fish ladders, culvets and green roofs.

Meanwhile those “animal bridges” can also be seen as the connections of the fragmented natural areas which are divided by big infrastructures, they emphasize of a resilient system in the urban planning.

Practical implications

These built areas are merely an extension of the vegetation on either side hence the woodland and various other flora are continued on and across the bridge. Ignoring the environmental advantages of the wildlife crossing, aesthetically, while driving, it is a beautiful and natural scene in a very artificial surrounding.

The practical structures of those bridges are between 10 m and 60 m wide. They typically have soil, litter, and vegetation on top to provide suitable habitat for a range of different species and species groups. They are now an essential element in landscape architecture for safe guarding our ecologies and ourselves, while adding architectural interest to our otherwise mundane motorways.

MZ

See also

064-Slow Experience.



"Urban Agriculture" across America
Source: http://blogs.kqed.org/pressroom/2012/03/05/food-forward-urban-agriculture-across-america/eagle-street-farms-brooklyn-new-york/

014
Urban Agriculture

Hypothesis

Participating in or buying food from urban agriculture will narrow the gaps between locals and the food producing system and provide farmers a new opportunity.

Theoretical backup

Concerns voiced include the environmental problems associated with large-scale and long-distance food chains, lack of sensory quality and diversity of food produced in the conventional system, and a general lack of trust in food coming from impersonal chains and anonymous origin (Wiskerke, 2009). Whereas many food-related issues tend to be defined as problems at the system level, participating in or buying food from urban agriculture provides people with a way of actually doing something about the concerns they have (Van der Schans, 2010). Citizen initiatives have an integrated view of urban agriculture, seeing it as source of fresh and wholesome food, a mechanism to bring about social integration and economic regionalisation, and a strategy to improve the resilience and sustainability of the metropolitan food system.

Practical implications

Urbanisation is no longer a threat to these farmers (upward pressure on farm land prices, urban inroads on the large scale farmland structure), but it provides an opportunity. Farmers close to cities may have smaller plots, but these plots are closer to city dwellers and can take advantage of direct sales, volunteer labour, and of speciality urban markets such as those for forgotten vegetables and ethnic food (Van der Schans et al., 2009).

Planning needs to focus on improving access to urban farms for urban pedestrians and cyclists. It also requires planners to acknowledge the multi-functional character of urban agriculture locations, and therefore a shift from strict single-use to more flexible mixed-use planning designations in the urban farmland zone.

MZ

See also

111-Farming the city.

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NYC DOT public plaza (the Life Between Buildings)
Source: http://buildipedia.com/aec-pros/urban-planning/new-york-city-revitalizes-the-life-between-buildings

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015
“Life between buildings” (Gehl)

“By starting with the patterns of public activities and the areas in which it takes place, building design becomes a means to an end, rather than an end in itself.”

(Gehl, 1987/2011)

Hypothesis

Only after a vision has been established of what type of public life one wants to see flourishing, is attention given to the surrouding buildings and how they can work together to support public spaces.

Theoretical backup

Spaces between buildings are where social interaction, urban recreation, and the sensory experience of city life take place. The ideas and approaches to design for public life between buildings incorporate the design of surrounding buildings without losing firstly sight of what best supports and enhances people’s experience of everyday life in the public realm. (Gehl, 1987/2011) Researching the life of public spaces and people’s experiences and opinions about public space helps to evaluate the city quality, discuss how our sensory abilities affect our use of space, and make recommendations for how surrounding buildings can encourage active use of outdoor spaces.

Practical implications

The designers should firstly have a vision of what kinds of public life for citizens expect in this place, then they make plans combine with surrouding buildings and put them work together to create a space for people. Carving out spaces for people is an open invitation, a simple open door to possibility. The cafe tables were only the first invitation, and already cities have responded to their new spaces with outdoor restaurants, art, street performances, music, and more. With the compactness of cities, the generous width of its streets and the smart restrictions of cars, no doubt it can continue to give back more space, and possibilities, to its pedestrians.

MZ

See also

055-Forever Promenade; 102-Great good place.



Canary Wharf in London
Source: http://www.bhmpics.com/view-canary_wharf_london-wide.html

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016
Urban regeneration

Hypothesis

It is necessary to regenerate the derelict areas within or close by the city center rather than exploit new lands in the urban fringe.

Theoretical backup

Urban regeneration is used when areas suffer from some level of urban decay. According to Colquhoun (1995) sparked in 1970 the movement of industry from the West towards the Far Eastern, the original industrial areas abandoned within cities. People with wealth left the inner city areas and moved towards the suburbs. If nothing does with derelict areas within or close by the city center they will create holes in the city structure will appear, weakening the city and creating social problems. (Institution of Civil Engineers,1988) As Jacobs (1962) said, “The endless new developments spreading beyond the cities are reducing city and countryside alike to a monotonous, unnourishing gruel”. The exploit of new lands in the urban fringes will cause more traffic, environmental and economic problems, while the reviltalization of the derelict areas within cities can help to provide a new opportunity for urban development.

Practical implications

Successful urban regeneration cannot be achieved in a vacuum. It requires cities to produce a comprehensive strategy based on local needs, new opportunities and changing circumstances they may arise. (Colquhoun,1995)

If a city wants to reinvent, sometimes a statement is necessary. This statement can come in form of a building or the creating of a special zone in which people and companies can experiment with buildings and functions. During regeneration, let citizens join in is important. You can create mutual confidence and the citizens can give their opinion about a neighbourhood which they lived in. While regeneration is not only about creating new things, it is also about not losing sight of the old things.

MZ

See also

027-Themetaindustrialvillage;052-‘Making’aUnique City; 125-Second generation; 135-Brownfield transformation.



Spontaneous City
Source: www.janrothuizen-manopstad.nl

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017
Spontaneous City

"The post-war emphasis on urban coherence and safety should be replaced, to accommodate a contemporary culture that demands flexibility, sustainability, participation, and surprise."

(Brendan McGetrick)

Hypothesis

"Spontaneous city" which emphasizes the co-design and co-production for citizens and planners may help to generate new solutions for urban development.

Theoretical backup

The concept of the "spontaneous city" seeks to establish a link between the city and its residents. It is shaped by occupants, in a never-ending process of transformation, growth and adaptation. Individuals and groups, comprising both residents and business people, re-use or reorganise spaces in apartment blocks, workplaces, parks and streets. Urban planning professionals work in close collaboration with the project initiators. The individual's creativity and energy is needed to develop new solutions for the urban environment. Co-design and co-production are no longer just fashionable terms, but accepted design forms in terms of sustainable urban development.

"Spontaneous" also means learning to live with uncertainties. Carefully organised master plans in which the final image is cast in stone are a thing of the past. Urban planners are called upon to adopt a flexible attitude and make clever use of the input from private initiatives to create a lively and sustainable city.

Practical implications

The most important principle for the Spontaneous city is 'zooming in', alternately reducing scale. It means embracing a development process simultaneously at the disposal of many initiators in various locations. The second principle concerns flexibility and an open attitude. Urban functions, architecture, density, and lifestyle are constantly changing factors. Spontaneous city – shaped by numerous initiative takers – can't be successful without spatial frameworks and collective values. Defining shared ambition is an integral part of the game.

MZ

See also

026-Multiple self-organizing activities; 052-'Making' a Unique City; 054-An 'Alien' Plan; 115-Lively favela; 016-Urban regeneration.



Child friendly city
Source: http://www.unicef-irc.org/media-centre/press-kit/CFC/

018
Child-friendly cities

"The city is friendly for children is also good for all."

(UNICEF Innocenti Research Centre)

Hypothesis

A child friendly outdoor space is esential for attractive and complete living surroundings in an inner city.

Theoretical backup

"Children provide a street with liveliness and social contacts between everybody and everything. Families are the carriers of new urbanism." (Larry Beasley, 2009) "Child-friendliness entails more than just creating a few playgrounds: it encompasses the entire design of the public realm." (UNICEF Innocenti Research Centre) The concept of planning child-friendly cities intends to create paradise for children and at the same time develop attractive living environment for citizens.

Different groups of children have different demands for spaces, so it would be necessary to consider the different age groups when running this child-friendly concept. Using the "playground" strategy, the Municipality of Rotterdam intends to create living oases for younger children: squares that encourage children to play and sufficient places to sit. The combination of variety in living environments, meeting places and amenities belonging to the inner city will turn the center into a real paradise for children growing up.

Practical implications

For designers, constructing a child-friendly city means they should consider children as the priority target when they make urban designs. Some planning principles like broad sidewalks, slow-traffic routes and speed-bump zones play an important role. Broad sidewalks provide informal space for games. Threshold zones create transitional areas between private domain and public space, where children can play in a safe, protected environment. Specific facilities for all sorts of target groups are also needed.

MZ

See also

051-The After - Hours; 035-Safe spaces for children and elders; 079-Think about generations; 016-Urban regeneration; 017-Spontaneous city.

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Main street Square in Rapid City, SD
Source: http://www.wegoplaces.com/south-dakota-attractions

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019
“Resilient” urban system

Hypothesis

> “Urban systems should have the ability to absorb disturbance and still maintain their basic functions and structures.” (Anderson, 2011)

Theoretical backup

Within the last five years, the term “resilient cities” has entered to the sustainability lexicon. A closer examination of the urban systems in the context of the adaptive cycle is helpful in identifying opportunities to increase resilience of the city. (Anderson, 2011)

Adaptive cycle consists of the four phase. “Rapid grow” disperses widely and grows quickly, succeeding in an environment where the first to theresourcecapturesit;conservation-phasegrows more slowly and succeed when resources are divided and allocated to specific uses. (Anderson, 2011) Collapse happens when a system becomes too specialized. Reorganization is the phase with the greatest heterogeneity, great potential and greatrisk.Inthisphase,asystemmaybeginafresh, or collapse further into a state of low potential. Systems tend to exhibit their greatest resilience as the system reorganizes and through the early conservation phase. A system that can adapt to maintain resilience is better able to absorb all but

Practical implications

A resilient urban system balances social system, economic system and bio-environmental system and maintains a diversity of peoples and uses, so that diminution of one group or function, or a political or economic disruption does not lead to a collapse of an entire system. Design can creates a setting for a diverse set of interactions between individuals and systems, thereby creating a rich space. Through design we try to enhance complexity and heterogeneity, yielding a resilient space. (Anderson, 2011)

MZ

See also

041-Resilience as a Bridging Concept; 045-Sustainable Adaption of Infrastructure.



DIDDEN VILLAGE, Middelland, MVRDV
Source: http://www.flickr.com/photos/florencecanal/5705060914/

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020
Smart densification

"Economic productivity increases systematically on a per capita basis by 15% with every doubling of a city's population, regardless of a city's initial size."

(Bettencourt, 2010)

Hypothesis

Appropriate densification can have positive effects on micro-environment of a city block and decrease urban energy stress without degrading the urban qualities.

Theoretical backup

Proximity to others and urban amenities are the most cited reasons for choosing to live in a dense urban environment. Adding dwellings in the right place can improve the existing mix of functions and strengthen or repair the existing identity of a city block or neighbourhood.

If improving the overall quality of the inner city is the goal, then smart densification must go hand in hand with the qualitative upgrading and quantitative expansion of urban green. (Doepel Strijkers, 2012) Smart densification have positive effects on the micro-climate of a city block or street. Normally, more mass means more thermal gains, which can decrease urban heat stress. Light and reflective facades can, however, counter this effect, and the smart desification of buildings can create welcome shade, lowering cooling demands. In addition, the smart positioning of building volume in relation to prevailing winds, urban green and water bodies can be a valuable instrument in cooling the inner city, making it more comfortable in what appears to be increasingly hot summers and heat waves. (Dobbelsteen 2011).

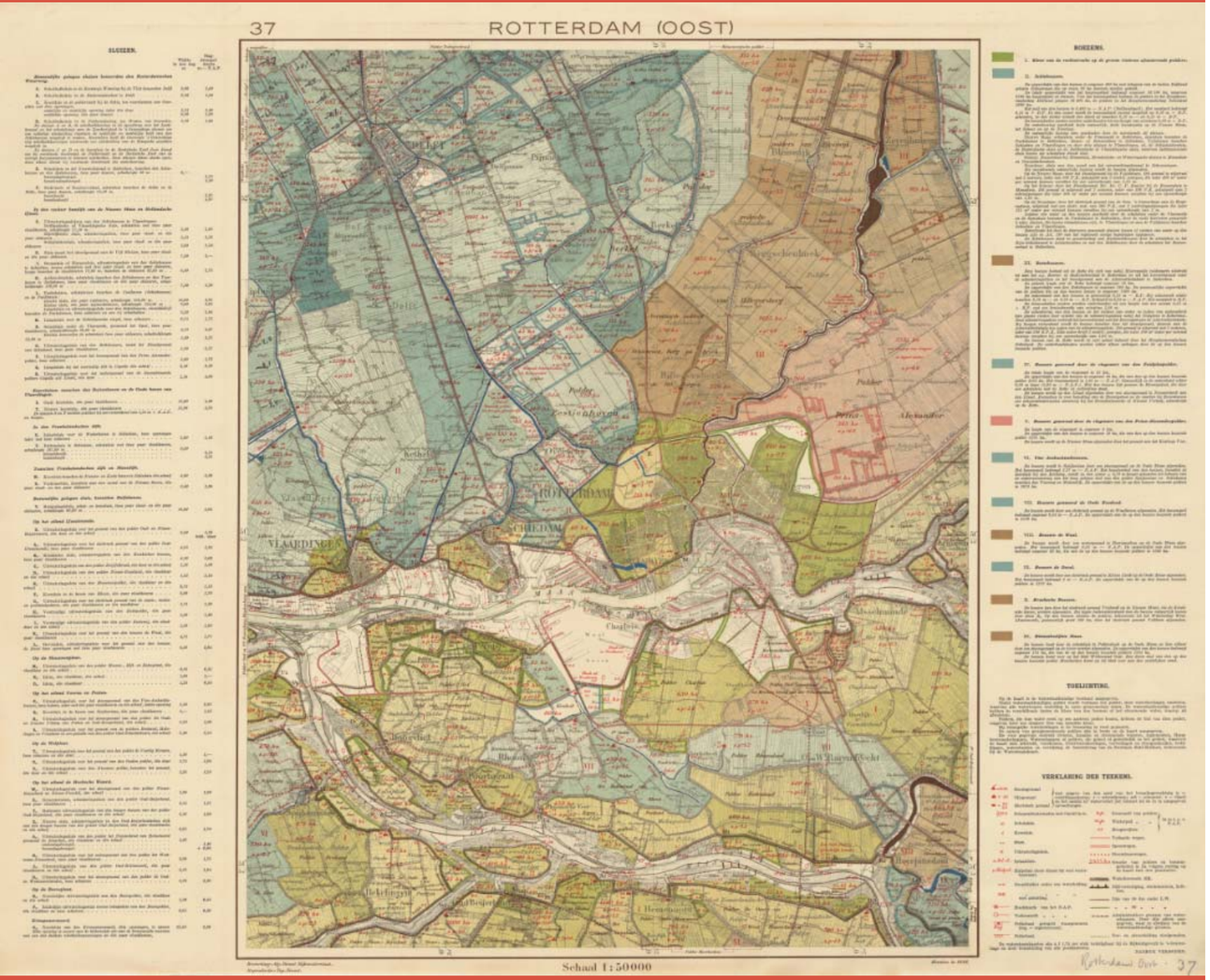
Practical implications

Densification in an existing urban fabric is a matter of precision. Besides creating the right mix of dwellings and amenities to strengthen the identity and quality of an existing living environment, the overall comfort in both buildings and the public realm can be improved by smart and bioclimatic design. To begin with, daylight, solar rights and views from existing dwellings must be preserved. Small, precise interventions can capitalise on existing residual space without degrading the quality for existing inhabitants.

MZ

See also

054-An 'Alien' Plan.



The dike system around Rotterdam in 1930
Image source:
Library of TU Delft

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021
Reusing of secondary dike

Hypothesis

To strengthen the defense ability of dike ring 14 in northern bank of the Mass River from sea level rising, reusing former dike system is a more flexible way.

Theoretical backup

The Dutch flood plains are divided into dike rings; A dike ring is an area, which is surrounded by a primary dike that protects the dike ring area from flooding by river, lake or sea. Dike ring 14 is the end of the Rhine -Meuse Delta; It lies within three Dutch provinces: North Holland, South Holland and Utrecht. Dike ring 14 has the highest cost efficiency indicator of all dike rings in the Netherlands.

The map on left page shows that the footprint of dike ring along the Maas River becomes more and more close to each other. In addition, the dikes become higher in vertical dimension. But now there has no space to continue this old strategy from sea level rising and flood. However, when we look back we will find former dikes could reuse in some buffer zone such as Delfshaven. It is not only a technical method, but also a change of traditional perspective to live with river.

Practical implications

The secondary dike strategy is the dikes just behind the primary dike; the land behind the secondary dike is protected by two dikes. And the land in-between is a flexible buffer zone for flood and water level rising. It is different from common ways such as higher dike ring 14 and be more close to the Maas River.

The secondary dike encloses a compartment, which is called secondary dike ring. The space between the primary secondary dikes can be seen as a buffer zone landward. A flood only occurs by the breaching of both of the dikes. The flood risk in the secondary dike ring is lower than the flood risk in the out dike zone. It provides time for rescue of the people or the whole ship to enter a harbor. Such time for reaction improves probabilities of survival of the people becomes larger.

SX

See also

dike ring 14



An illustration of the 1990 plan by Bernard Lassus to reinvent the Tuileries
Image source:

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022
Layered landscape

Hypothesis

For landscape design in historical site, starting design from archaeological approach could reveal the history of the place.

Theoretical backup

It may be the only time that historic site conservation has been compared to a thousand-layered pancake. But use of stratification was the most unusual method about the 1990 plans by Bernard Lassus for the Jardin des Tuileries, that magnificent processional space between the Louvre and the Place de la Concorde.

Stratification----for Bernard Lassus’s landscape consists of many historical layers and levels of meaning superimposed upon each other, making any place potentially unique. It is not only an archaeological approach, but also a consequence of the culture and age-related heterogeneity of our society that the individual increasingly only perceives particular levels of meaning of landscape. Briefly speaking, the creation of an environment with a wealth of sensuous experiences and as little intervention as possible has been one of Lassus’s most significant aims.

Practical implications

It was intended to enable visitors to trace the garden’s development. For this purpose and archaeologist’s approach was to be adopted in order to uncover fiver different strata of garden at different levels:

The stratum of the sixteenth century (80cm under the present ground surface)

The stratum of the garden during the time of the royal gardener of Henry, Claude Mollet (20cm under the present ground surface)

The stratum at the time of Le Notre (present level)

The stratum of nineteenth century (50cm above the present level)

The stratum of the contemporary era (170cm above the present level)

SX

See also

Jardin des Tuileries







Image source:
DE URBANISTEN, Watersquare Benthemplein

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DE URBANISTEN en het wondere waterplein, F.Boer, J.Jorritsma and D.van Peijpe, ISBN 97890 64507366, 2010

023
Buffering rainwater in cities

Hypothesis

A transformation of dealing with increasing storm water is currently being explored in Rotterdam where surplus surface water is stored in public space temporarily.

Theoretical backup

Since the climate change, the years that heavy rainstorms will increase. This will become urgent problem because cities' sewerage systems can't cope with sudden amount of water. Highly urbanized areas have too little infiltration space for heavy rainfalls, and existing open spaces are either hard surface or impermeable public domain.

To solve this problem, a new utilization of urban public space such like playgrounds as rain water storage within improving the quality of public space. From this perspective, no need to enlarge the pipe diameter of sewerage system, there have sufficient potential rainfall tank scattered all over cities.

Practical implications

Three basins collect rain water: two normal levels for the immediate surroundings will receive water whenever it rains; one deeper level receives water only when it consistently keeps raining. Here the water is collected from the larger area around the playground.

Rainwater that falls on the square runs via large stainless steel gutters over it, into the basins. When it's dry, these places are fit for everybody. The deep basin is a true sports pit, as well as a theatre to see and be seen.

All can flood is painted in shades of blue. The space is gently defined and subdivided by a green structure of high grasses, colorful flowers and the existing large trees. The water playground creates a new context for the great modern building, and a more mixed -use functions of public open space.

SX

See also

sewerage system, stormwater



Image source:
DE URBANISTEN

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DE URBANSISTEN, “Loose fit, designing for shrinkage”, 2010

024
Reshape declining town

Hypothesis

Based on current economic crisis, a smarter strategy should be used rather than traditional planning and design methods founded on growth.

Theoretical backup

One of the most significant features of western European countries is the slowdown of developing speed. In several regions in the Netherlands‘shrinkage’ instead of growth is the process that currently influences the future of our cities and villages. Shrinkage often starts with a decrease of population and then households. It manifests itself in empty buildings and negatively affects the quality of life. To encounter this problem the traditional instruments of planning and design are unfit, since they are founded on a condition of growth.

Because the current economic crisis, obviously the development of new real estate will not be appropriate, but there are other options. One of the opportunities brought by shrinkage is empty buildings and vacant public spaces. Therefore the reshaping of these buildings at a low cost will be a broadly used.

Practical implications

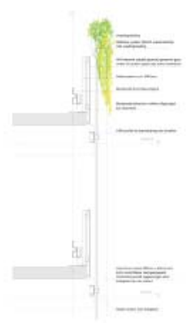
Different measures will be used based on function of buildings. For instance, rebuild of historical ramparts of the town could use material of empty houses that are to be demolished. And about industrial functional buildings, such as abandoned sugar factory, we propose to remove the fences around the factory and to animate its beautiful spaces for local people. In addition, the repaint of the factory's grand silo could provide an immediate landmark for the site. In the neighborhood where houses will be demolished, the surplus space can allow an existing children's farm to expand. The space of an adjacent empty building will serve as new stables and the perimeters for growing crops to feed the animals.

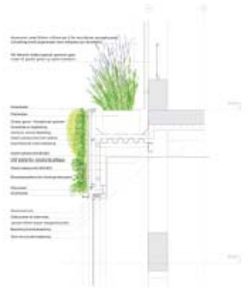
SX

See also

micro intervention









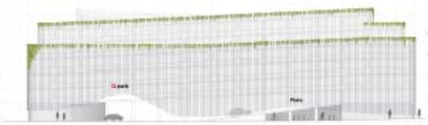




Image source:
http://www.zandbeltvandenberg.nl/en/projects/p/veerkaden-car-park

025
Green vertical systems

Hypothesis

Building facades could be designed integrating vegetable elements, to provide a better climate situation and save energy.

Theoretical backup

Green facades are facade systems in which climbing plants or hanging port shrubs are developed using special support structures, mainly in a directed way, to cover the desired facade. The plants can be planted directly in the ground at the base of the structure, or in pots at different heights of the facade.

In order to use green vertical systems as passive energy savings systems four fundamental mechanisms should be considered:

interception of solar radiation due to the shadow produced by the vegetation; thermal insulation provided by the vegetation and substrate; evaporative cooling that occurs by evapotranspiration from the plants and the substrate and by defending the wind.

Practical implications

Green facades are made of panels and geotextile felts, which are fixed to a vertical support or on the wall structure. The panels and geotextile felts provide support to the vegetation formed by upholstering plants, ferns, small shrubs, and flowers.

Panels of varying sizes and types, with holes in which the substrate and plants are located, are fixed to the wall. From image showing on the left page, the geotextile felt systems use geotextile felt as support for the plants or mosses, anchored directly to the wall. Voile of lamellae around the building creates a new attractive image. The entrances on both sides are marked with exuberant green at the street. In the evening the building will glow like a lampion in the city.

SX

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See also

vertical greening



Image source:
Pan Jialai, Yu Ruofei, Chinese heritage

026
Multiple self-organized clan

Hypothesis

"Associational forms of civic life should be nurtured not regarded as a potential threat, particularly at the local level."

----John Friedmann

Theoretical backup

The importance of clan and family is perhaps one of the most important features of Chinese culture. However, in China's industrialization process, conducted in early 1950s land reform movement, clan system suffered a huge blow. In that particular historical period, clan was treated as the opposite of industrial civilization; it conducted a cultural offensive to the shrine, genealogy, etc. Clan organization was replaced by new communist party organization; the shrine was transformed into school or City Hall. But because of blood and geopolitical, since the 1980s, as the core of spontaneous clan, continuation of genealogy and other activities such as the gradual recovery still play an important role in the local society.

In addition, since the impact of Christianity, Chinese society begins to rethink the importance of the clan. Clans should not be considered obstacles of social rules, but self-organized link which maintain social and cultural traditions.

Practical implications

Thus, far from encouraging the dreaded chaos, organized civil society should be seen as a source of civic strength, an asset worthy of public support. Its existence acknowledges the full diversity of the city while promoting local citizenship.

In rural China, clans charge with maintaining regulation of rural societies, villagers' basic behavior and ethics of responsibility through institution of local rules and genealogical research. The constraint of clans is also manifested in ruling of the villagers' behavior. Clan teenagers may be contaminated on the prevention of social vices. Genealogy has strict bans on prostitution, gambling, alcohol, fighting and other evils.

SX

See also

Wikipedia: China's clan

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Daming Palace national heritage park
Image source:
http://en.dmgpark.com/dmg/

027
Historical site preservation

Hypothesis

Historical site should not be regarded as obstacle in development process, but precious resource for city redevelopment.

Theoretical backup

China owns a bad reputation about preserving historical sites during urbanization process. That is because demolition is far easier than preservation and negotiation for a powerful government. On the contrary, national heritages are rigid protected by a set of laws, so the areas surrounding these sites always develop slower than other parts of cities. For instance, Daming Palace area has a long history of failed spatial planning. In essence the site has never successfully been redeveloped due to the protection priority strategy. According to this strategy, all sites and their surrounding areas are last choice for city development.

But in last decade, local governments gradually realized the value of historical sites. The market did not have the confidence until this mindset was changed and then cultural heritages became potential resources for city redevelopment.

Practical implications

On the one hand, national should institutes preservation plan for historical sites, it needs to clarify the relationship between preservation and mixed use redevelopment. Local governments should do a lot of negotiations among different benefit groups, and then conclude a compromise on inhabitants' relocation. In addition, planning departments will make master plan for urban redevelopment, in the case of Daming Palace; Transit Orient Development strategy plays an important role during this process.

On the other hand, the market which means real estate developers, investment groups and NGOs will participate in this plan. They will get lower cost of land since site surrounding areas should be restricted by building height and density. And also as a part of inhabitants' relocation, new communities should distribute parts of it for social welfare housing.

SX

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See also

Daming Palace, preservation plan, cultural relics protection



Image source:
HDB Singapore

028
Danwei welfare housing

Hypothesis

Danwei welfare housing: a kind of balance mechanism of China urban housing stock.

Theoretical backup

After 30 years high speed economic growth and booming urbanization, China government has realized the method to achieve priority of economic development by shirking a part of government responsibility does not work anymore. By analyzing the current dilemma, on the one hand social housing system is still not completely established after ending welfare housing system 15 years later. On the other hand, urban housing stock failure leads to a series of problems such like unaffordable housing price and social polarization. Therefore China government reemphasized social housing development and intervention to urban housing stock in recent years. Through analyzing history of Chinese housing reforms and social housing system of Singapore, Danwei welfare housing in the mode of reviving former danwei communities is a potential answer a kind of balance mechanism of urban housing stock.

Practical implications

The new methodology will probably renew danwei welfare housing system, but not all. Since back to the socialist housing system is obviously unwise. Firstly this approach needs to set up a fair standard, Limiting speculative and transparent operation is undoubtedly necessary. Thus, the Ministry of Housing and Urban-Rural Construction clarified a new framework for an urban housing provision system in 2007. This system consists of two part, commercial housing supply system and security housing system. The commercial housing market is opened for the private real estate developer, while the social security housing is opened only for the low-income group or typical group.

SX

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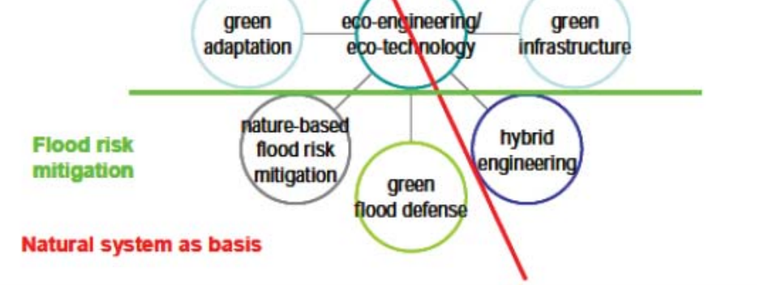
See also

Wekipedia: Danwei





Ecosystem	Flood defense properties	Additional services
coral reef	reducing wave energy, sediment provisioning	nature, tourism, food provisioning (fish)
shellfish reef	reducing wave energy, reducing erosion, enhancing accretion	nature, food provisioning (fish and shellfish)
salt marsh	wave dampening, reducing erosion, enhancing accretion	nature, nursery for seafood species
riverine wetland	flood defense, water retention, reducing erosion, enhacing accretion	nature, nursery
dunes and sandy beaches	flood defense, reducing erosion and enhancing entrapment of sand	tourism and recreation, water purification
seagrasses	mediation of currents and waves, reducing erosion	nature, nursery for fish, clam habitat
mangroves	reducing wave impact and current velocities, reducing erosion	nature, provisioning of food and firewood, tourism

Water retention by using sports ground
Image source:
DE URBANISTEN "Watersquare Benthemplein"

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Green adaptation for urban flood management

029
Green adaptation for flood management

Hypothesis

Water management plans, ecosystems services can aid cost-effectively in flood risk mitigation.

Theoretical backup

Delta areas all over the world are at risk. They face a rapidly increasing population and unpredictable environmental conditions related to climate change. Especially heavily urbanized areas have to deal with increasing demands on space and high costs for defense against flooding, plus a whole suit of complex multispectral problems, such as freshwater availability, public health, economic wellbeing, as well as livelihood development and general quality of life.

Only a holistic approach will ensure human well-being, economic development and quality of living over the long term. Ecosystem-based Green Adaptation approaches aim at providing such integrated solutions by embedding natural services in land and water use planning in order to strengthen livelihoods and support development, while also enhancing ecosystem health.

Practical implications

Effective mitigation of natural hazards, public health and economic well-being, as well as livelihood development and general quality of life are essentially based on reducing vulnerability and on strengthening resilience of communities. In order to do this, their living environment and their socio-economic system needs to be adapted.

Numerous structural and non-structural measures can be taken to reduce this vulnerability. Structural measures are constructed permanent facilities that reduce the damage risk of flooding, drought and heat.

SX

See also

De Urbanisten: Water square Tiel; Iseldoks



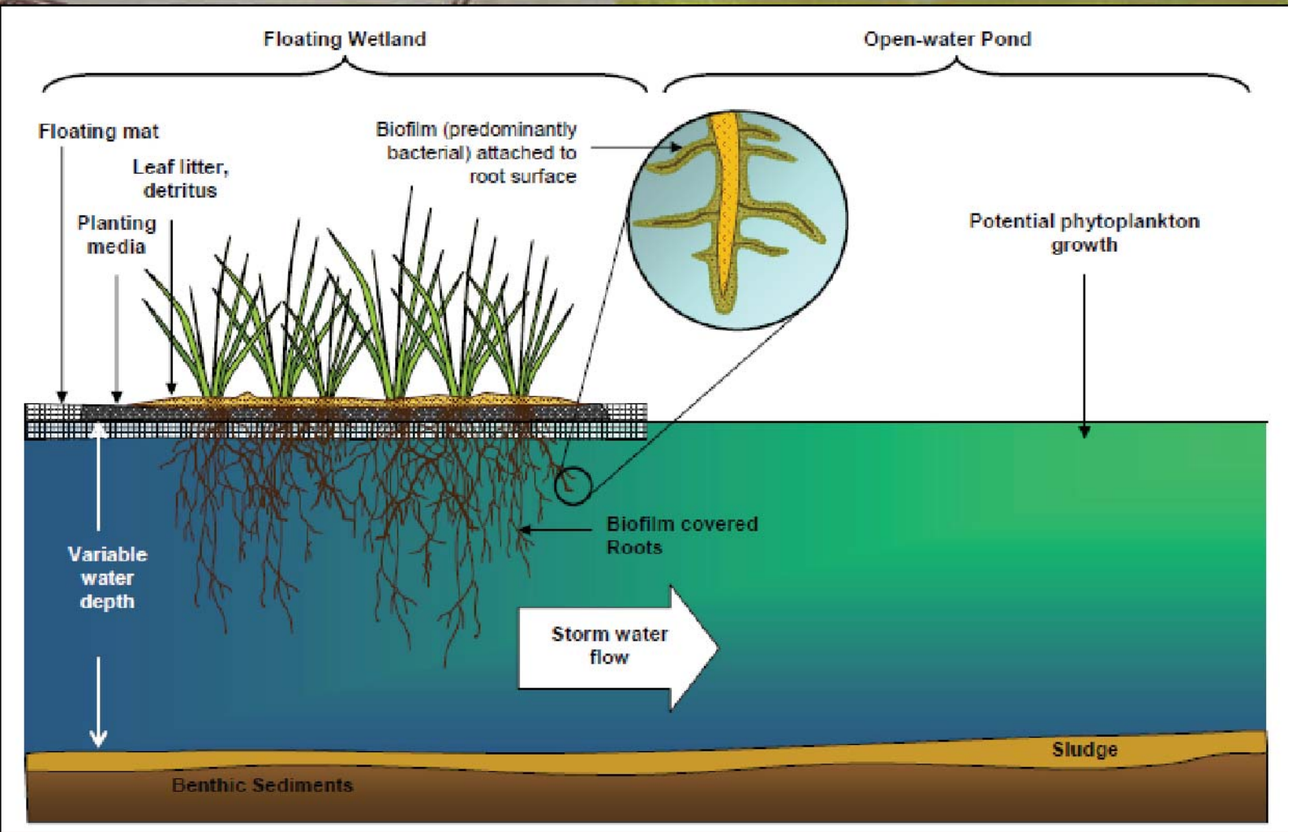

Image source:
Cross-section of a basic floating treatment wetland (Headley et al., 2006)

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030
Restoration of city waterbody

Hypothesis

Application of the biofilter can contribute to the enhancement of urban surface water quality.

Theoretical backup

Ongoing urbanization and the subsequent extensive use of the urban water system can lead to degradation of its surface water quality. Urban water bodies often suffer from the manifestations of eutrophication due to (historically) high nutrient loadings.

Urban water bodies often function as amenities of the urban area. Their ornamental and ecological value depends on the state of their aquatic ecosystem. Excessive nutrient loading, leading to the collapse of the system’s biodiversity, turns a water body into a turbid state without submerged macrophysics.

Application of the biofilter can contribute to the enhancement of urban surface water quality by increasing the nutrient carrying capacity of a water body. Especially in urban areas with various diffusive nutrient sources and physical constrains, the application of the biofilter can be efficient.

Practical implications

Restoration of the clear water state through reduction of nutrient loadings alone is hindered by hysteresis caused by the ecosystem relations and could be supplemented with an approach focused on increasing the system’s nutrient carrying capacity or an internal approach directly targeting the manifestations of eutrophication.

The biofilter is a floating treatment system that actively drains a filter bed with bog plants growing in it. The influent is provided by free inflow of surrounding surface water. Its water treatment ability depends on various processes including filtration, adsorption and biochemical transformations. Additionally, its inner reservoir serves as a habitat for small aquatic organisms like zooplankton and macro invertebrates.

SX

See also

biofilter



Central station in Amsterdam
source: http://www.humanefficiency.nl/public/

031
Explorable city space

Hypothesis

The city as a collection of different historical layers should provide an opportunity to be discovered in a cohesive way.

Theoretical backup

Contemporary city has been shaped with the course of centuries, and each historical period has left its traces on a shape of an urban fabric.

Nature of each historical layer implies which types of movement flows, activities and functions are appropriate for its environment. The city works "both as medieval village with equivalent of 13th century inhabitants pottering about, and a global network of 24 hours traders" (Jencks; 1996). It works also as "as a nineteenth century city of public transport and shopping streets, and as a contemporary metropolitan city of motorways, business parks, airports and malls" (Read, 2009, p.092:5).

As a result of different planning decisions made through the times, historical layers very often are overlapped in one territory. If planning decisions had been made without an attention to existing urban structure, interaction between layers does not have a harmonious character, and it causes range of problems both on a local scale and on a big city scale.

So, historical 'multilayeredness' of a city (or, so to say, palimpsest) can bring both a lot of potentials and conflicts to urban fabric. As far as physical built environment itself is very hard to transform, the good way to bring coherence into city structure is to provide relevant transport network, and, what is extremely important, smooth intermodality.

Each person must have an opportunity to discover fabric of the city in all its diversity and richness, and be able to 'use' the city in a maximum scope.

City space, as a collection of different layers, environments and movement flows must be explorable, and soft transition between scales and layers must be provided. The case of Amsterdam is a positive example of how city should operate: dense network of tramlines serves historical part of an old city, and at the same time, it is easy to shift to large scale infrastructure as all trams always come to the Central Station.

Practical implications

'Accessibility' with 'explorability' can be achieved through development of integrated public transport network which provide an easy shift from big city scale to more local. Tram lines should cover pedestrian areas of dense city centers and then be connected with metro and railway stations. Regional roads which run through dense urban areas should be downscaled to local scale with the introduction of green spaces and extension of public transport lines.

JB

See also

40_Vaporetto city, 68_Regional and local networks, 62_City is a narrative, 22_Layered landscape

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Street in Kiev, Ukraine
source: author's own

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032
Human scale neighbourhood

Hypothesis

People need to identify their neighbourhood with an idea of "home", so residential neighbourhood must be of human scale.

Theoretical backup

It is necessary for locals to identify the area, where they live in, as a distinctive one. Residents are usually familiar with only small quarters around their home place and feel more safe and comfortable in small scale and low-rise urban environments.

Why small scale is so improtant? Large-scale residential district (which is defined both by height of buildings, width of streets, and street network which is usually not dense) does not provide a variety of different spaces for people to use: it has only private space (own apartment) and then public space which is unidentified and "unowned", which does not provide interaction between people, just because it is so big and because there are so many people live in large area: they simply do not know their neighbours.

In residential district of human scale there is a gradual division to private space (apartment, private garden), semi-private space (let us say, a balcony), semi-public space (outdoor area under the canopy, or small garden between dwelling and the street), and, in the end, public space (playground, street, bus stop). So, from the one hand, when areas of different level of privacy are so close to each other, it stimulates more interaction between people (one is standing on his balcony, but still can observe street life). From the other hand, after places are defined by kind of use, private or mutual, an idea of 'home' extends from one single apartment to the scale of neighbourhood. In other words, there is no more "my apartment and something around me", but "there is my apartment, and my porch which I share with a neighbour, and my street which I share with a postman, a grocery man, old lady with her cat, and all the other residents". As Jan Gehl explains it, "one is not necessarily with a specific person, but one is, nevertheless, with the others" (Gehl,1987).

Practical implications

Residential quarters should be designed in small closed low-rise blocks which have courtyards, so locals would be familiar with their areas of living. As a consequence, they would be familiar with other residents, what would make residential quarters more safe.

On the in-between streets local activities, markets and small cafes must be provided to increase an interaction between people.

JB

See also

34_Places to meet, 79_Think about generations, 80_Go out and get in touch, 35_Safe spaces for children and elders, 55_Forever promenade, 15_Life between buildings, 102_Great good place, 113_Collective self-esteem







National tourist route in Norway
source: http://www.nasjonaleturistveger.no

033
Reflect the context

"At any moment in time earlier transformations of the landscape can be read in their continuing effect on the contemporary environment and by means of the palimpsest of objects and structures produced in that process" (Roymans et al, 2009, p.356)

Hypothesis

Identity of an area is formed by historical and cultural landscape of the place and new spatial structures should be designed with a high attention to the context

Theoretical backup

The concept is based on people's relation to their environment and implies that design process should take into account the history of a landscape (which is understood here both as an urban form and natural landscape). It shapes identity and central values of the place both in dense urban areas or remoted rural settlements.

What is more, before the 20th century, when the development of technology allowed to produce environments completely independent from their surroundings, urban settlements were much more dependent on natural conditions, people had to deal with the nature, instead of fighting with it, and, therefore, structure of the cities was much more integrated to the landscape - it was contextual.

So, it is extremely important to understand relations between environments of different time and scale and to learn which factors influenced the shape of the place through the times. Why the place looks like it looks? Why is it different from other places? What is the nature of its identity? How can it be stregthened?

Practical implications

Careful study of the historical changes of the area should be the basis of research-based urban design. Understanding long lines of development and integrating narratives, meanings and processes (Roymans N. et al.; 2009) in one story of past and present, helps to provide a more clear vision of what could happen in the future, and to bound new spatial exercises with a context in a cohesive way.

As a result, right places to make an intervention in an urban fabric or a natural landscape would be found. If the context is already rich, interventions should be minimal, but with cultural reference to the past. If there is a homogenious environment, the study of the past can be a guidline, how to reintroduce an idenity of an area - for example, with the means with delicate reconstruction of lost important connections and anchor points.

JB

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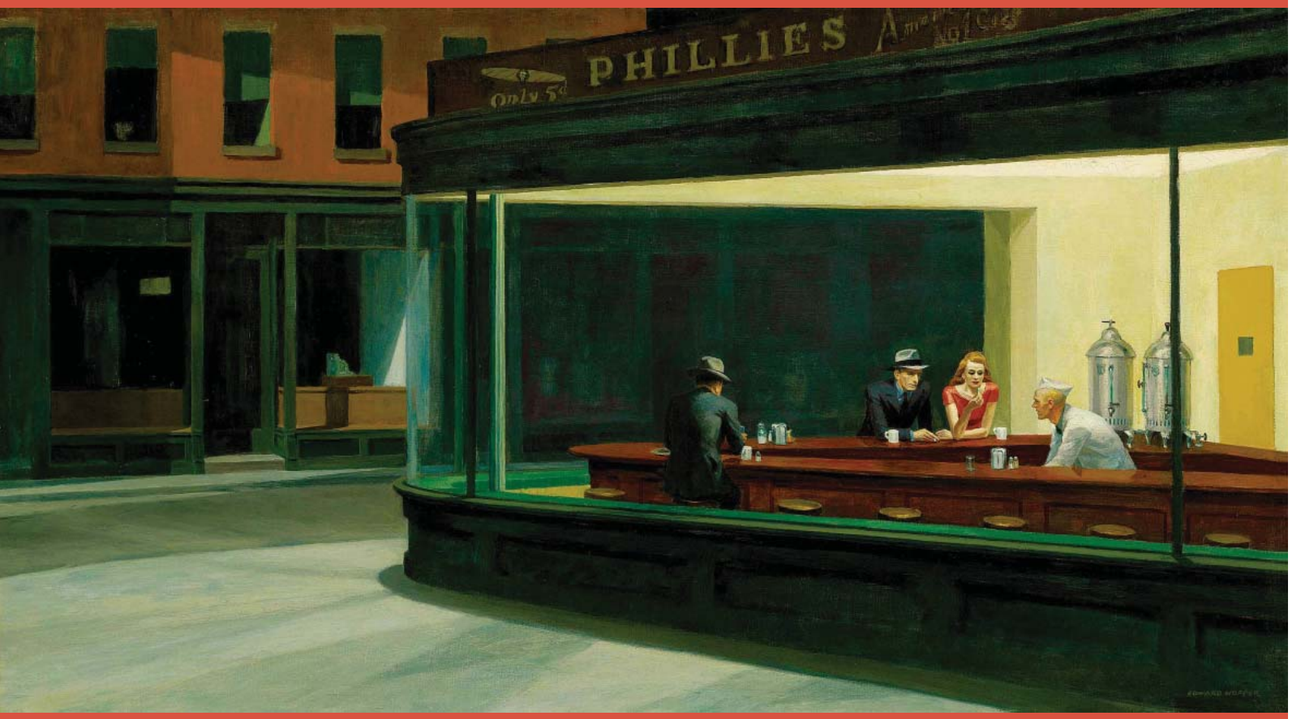
See also

38_Back to history, 61_Acropolis in context, 127_ Landscape tracing, 133_Homogenizing cities



E. Hopper “Night hawks”, 1942

034
Places to meet

Hypothesis

‘Places to meet’ stimulate interaction between diverse groups of people and facilitate urban vitality.

Theoretical backup

Cafes, bars, terraces and other similar spaces characterize identity of the neighbourhood on a very local scale and are essential for face-to-face contact between people. In university clusters ‘places to meet’ play a role in nurturing creativity and exchanging ideas. In residential areas they provide sense of place for locals, so they can identify themselves with their neighbourhood and with other locals. In busy urban centers they offer an opportunity to take a rest and observe vital street life through the window of cafe.

The concept can have negative sides, because cafes and bars are often associated with a noise and a lot of drunk people around, what is not good, especially in quiet residential districts. But the basic thing is that these places offer interaction in any environment, and interaction in a small closed space is much bigger, than in open spaces like parks or public squares. So, problem of noise is not about having or not having next-door cafe, but about having right amount of ‘places to meet’ according to a density of an area.

Practical implications

It is important to introduce differend kinds of small scale closed public spaces according to the environments of each neighbourhood and to demands of different groups of people: students, workers, businessmen, intellectuals or families with children.

Whole range of different cafes, bars and terraces usually flourishes in dense city centers, often grouped around open spaces.

But it is also important to facilitate such small-scale facilities in monofunctional residential districts. There is a lot of neighbourhoods which were designed as large-scale modernist projects, where all mixed-use functions are concentrated in one ‘big box’ per neighbourhood. The presence of ‘big boxes’ usually lead to a fail of urban vitality in the surrounding territory, and an introduction of small cafes, spread all other the area could help to downscale large dormitory districts and bring human environments into an unfriendly context.

JB

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See also

32_Human scale neighbourhood, 5_Take a seat, 15_ Life between buildings, 102_Great good place



source: http://rethinkingchildhood.com/

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035
Safe spaces for children and elders

Hypothesis

Spatial structure of the neighbourhoods must provide safe living conditions for a person on each stage of their life cycle

Theoretical backup

Each person must be able to experience full breadth of life in his community, so designers should keep in mind not only different target groups of population, but also be aware about needs of different ages. This means on the first place appropriate and safe public spaces, where children and elderly could interact and learn from each other.

The safety, as a determining factor, could be established in a spatial structure and morphology of the streets and public spaces.

Oscar Newman introduces several factors which provide safe spaces: territoriality, natural surveillance, image and milieu (Newman, 1996).

‘Territoriality’ is the idea that one’s home is sacred, and ‘natural surveillance’ means that there should be link between an area’s physical characteristics and the residents’ ability to see what is happening around. Notion of ‘image’ implies that the capacity of the physical design must impart the sense of security. The last factor, ‘milieu’ describes other factors which can affect security, such as proximity of a police station or busy commercial area (Newman, 1996).

Practical implications

Community should have public spaces of small scale, importantly pedestrian and accessible for everybody. Safety in urban area comes from the level of its visibility. Local street network could be designed in such a way that provides safety and reduces risks of crime: without dead ends or huge unorganized open spaces.

What is more, to prevent crime, areas should be defined for function, and paths should be defined for movement. Outdoor areas should be juxtaposed with homes, and outdoor spaces should visually provide a close watch of outside areas.

JB

See also

32_Human scale neighbourhood, 79_Think about generations, 18_Child-friendly cities



Vancouver waterfront
source: paradiseintheworld.com/vancouver/

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036
Integrated waterfront

Hypothesis

Abandoned waterfront areas in the city centers must be redeveloped as a connective tissue between old city and water, not as independent projects.

Theoretical backup

Most of abandoned waterfront areas are located in the very central areas of the cities, as previously, during the industrial age, they formed a busy economic core of the cities. Water edge provides high visibility, and the land of former port areas is usually much cheaper than in downtowns. All these factors make waterfronts extremely attractive for big redevelopment projects.

But instead of using the opportunity to create environments which reflect the identity of exact city and serves the needs of residents, many projects only include large-scale constructions with iconic buildings. They shape an impressive view from the water, but in reality serve as a border between old city and water.

For example, redevelopment of Sydney waterfront which was widely considered as successful project, in reality turned out to be the opposite. Often presented as “picture postcard waterfront city”, Sydney provides relatively few opportunities to reach the edge of the water. The core of the problem is that city operated as two different realms: of the harbour and of the city. Also, the physical development of an area has been shaped by commercial and politiical motives above any sense of a public realm, - so the project failed to integrate itself into the fabric of the city.

In contrast, example of Vancouver waterfront has become a model for other cities both in terms of its planning process and, as a result, its physical structure. Planning comprised several steps, including the creation of policy statement to guide development planning, then an official development plan and finally rezoning of a site according to new policies. These measures helped to produce a successful design project integrated in a fabric of the city.

Practical implications

If there is a goal to create a waterfront which represents a real image of the city, not a “postcard”, first of all, on a planning level, there must be collaboration between port and city authorities and also between public and private sectors. So, through the course of development, there must be a constant dialog between all the actors of the process.

With regards to physical implementation, link between new waterfront and old city must be reestablished by extending existing street network into new areas. If high density development is planned in renewed area, height of buildings must increase step-by-step, from low-rise, then to middle and then to high-rise constructions. Transition zone should be designed with the infill developments to mesh old downtown to water edge. Increase in functional diversity, density, job-housing ratio must happen in a gradual way.

JB

See also

33_Reflect the context, 52_ ‘Making’ a unique city, 57_A buffer that connects, 98_Shrinking ports, expanding cities





Westpark in Bochum, Germany
source: author's own

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037
Potential of the "ugly"

Hypothesis

It is important to turn the remains of industrial era into objects of heritage, in order to show locals that their past is something to be proud of.

Theoretical backup

Industrial port areas are undergoing now large transformations related to changes in structure of port activities, living big territories for redevelopment. These areas consist of vacant areas itself and residential neighbourhoods which used to provide port with labour force.

As a result two main problems can be identified: how to deal with the brownfields and how to improve the image of the neighbourhoods, as people did not tend to leave territory, but would prefer to stay in places where they were born.

One of the possible solutions could be turning problems of the area into potentials, or, in other words to value the remains of the industries as a part of a heritage, or, in other words, identity.

"It is a way of showing the existing population that they are still wanted and that the history of the area, the place where they grew up can be something t be proud of" (Mulder; 2008)

Practical implications

Positive example of the regeneration of an industirial region is shown in the project of Emscher Park in Germany where old factories were turned into cultural monuments. New function provided the opportunity to integrate old industries into whole urban system of Ruhr agglomeration. They serve now as local centres of public activities.

JB

See also

7_Port heritage, 11_New life for old buildings, 37_Grassroot strategies, 49_Anchor buildings, 69_City and the Specttacle, 125_Second generation



Brielle (Den Briel), 1649
source: http://commons.wikimedia.org/wiki/File:Brielle_-_Briela_-_Den_Briel_-_Brill_(Atlas_van_Loon).jpg

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038
Back to history

Hypothesis

Dutch cities have had long traditions of the integration of water into an urban fabric. Although these traditions were partly lost, we should learn from it and collect the experience of the last centuries

Theoretical backup

Throughout the centuries economy of the Dutch cities was based on water networks. They were used as main ways of transporting cargo and people between and within cities (Meyer et al.;2010). Fortified cities were essential part of Dutch military defense system.

So, water was an essential part of any urban environment and formed a unique image of the cities. With the course of centuries this relation was partly lost for series of reasons. Canals were replaced by roads to leave space for cars, small fishing ports were turned into land as there were no more need fore fishing, or water rings around fortresses were leveled to the ground, because they lost their defense function. This lead to gradual separation of cities and villages from water bodies and consequently to decrease in quality of urban fabric, especially in large port cities like Rotterdam.

Waterfronts which initially were most active parts of the city, turned to become ‘backyards’. Though on the city scale it is extremely difficult to transform an urban structure and to bring it back to water, on a local scale of a village some small improvements can have a very big positive impact.

Practical implications

Positive examples of the past could be restored in a conscious way. Lost connections with water can be reconstructed both with the means of spatial transformation and also by setting activities linked to previous and original uses of an area (Brutomesso; 2004).

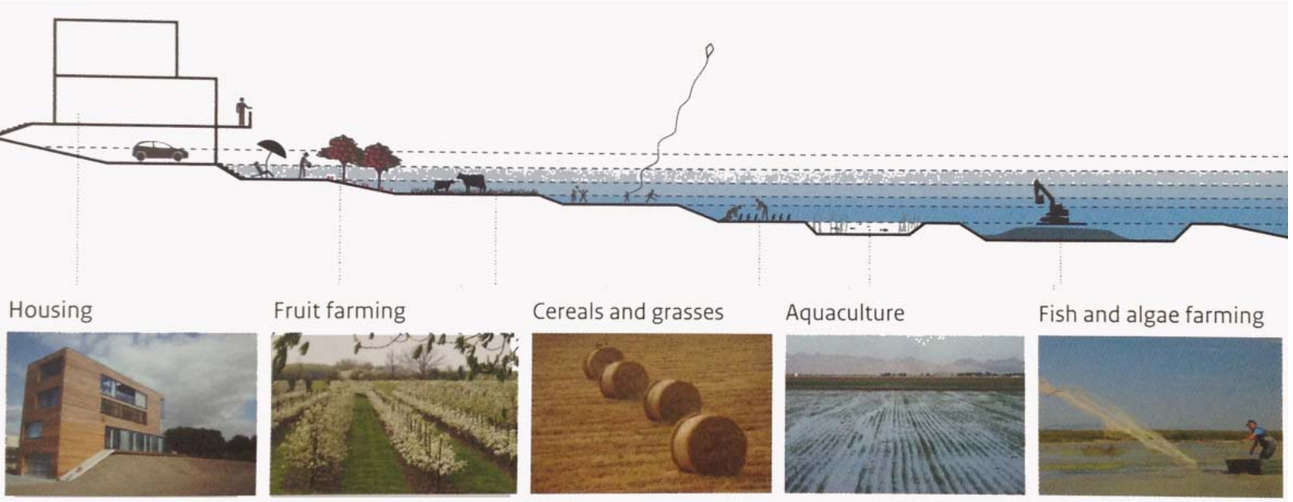
Bringing back small ports, old canals or fortification structures enriches quality of an urban fabric, and it starts to operate as more pedestrian-friendly. Partial reconstruction influences value of the place: it attracts not only locals, but also tourists.

With regards to new appropriate functions, life at sea (for example, maritime museums), fishing or navigation can be introduced with a goal to preserve and experience again meaningful history of the places.

JB

See also

33_Reflect the context, 127_Landscape tracing, 40_Vaporetto city



Dynamic outer-dike area
source: Rhine-Meuse Delta, opportunities
for the current flood risk management strategy in 2100

039+117
Adaptive landscape of the dike

Hypothesis

Adaptive dike ensures water safety and create softer barrier which can be designed as an urban structure with diverse functions.

Theoretical backup

Land behind the dikes needs to be protected from highest water levels which only happen approximately once in 1250 years (or even more rare), but usually water levels are much lower. If dike has a width of a hundred meters, there is no danger of breakthrough, and hinterland is safe and protected. So dikes could be designed in such a way that outer-dike area is divided to different levels of protection according to the heights and can be used for diverse functions. This would improve integration of settlements into water landscape in a sustainable way, creating soft transiotion areas instead of rigid defense structures. Another advantage would be the visual gain towards the water and the opportunities that it would provide for the region.

This is especially important in a framework of current policies which tend to approach water management not as an independent issue, but in an integrated way, making connections with economic, ecological and social concerns (Meyer et al., 2010).

Practical implications

Instead of being a border, dikes could be widened and landscaped into several levels and thus adapted for housing, farming, agriculture or tourist activities.

The width of an adaptive dike can go from 100m in places where space is limited (such as near existing villages and towns) to 200m in rural areas, where there is no habitation.

The average frequency of water levels could be translated into a vertical division of the outer-dike land, so the higher the area is, the less often it is expected to be flooded. Following this principle helps in designing the dike: regularly flooded areas are suitable for the development of tidal-river plants, the area which is flooded a few days each year is better for food crops. In the highest outer-dike areas villages could be located (which would have a view across the water and to the land behind). Different types of adaptive housing, could also be the part of the program: they could be flooded in a controlled way once in a few years, as well as public spaces or gardens.

JB&GPC

See also

29_Green adaptation for flood management, 59_ Smart flexible and integrated defence, 66_From defence to retention, 97_Recreational defence, 119_ Climb the dike and enjoy the ocean

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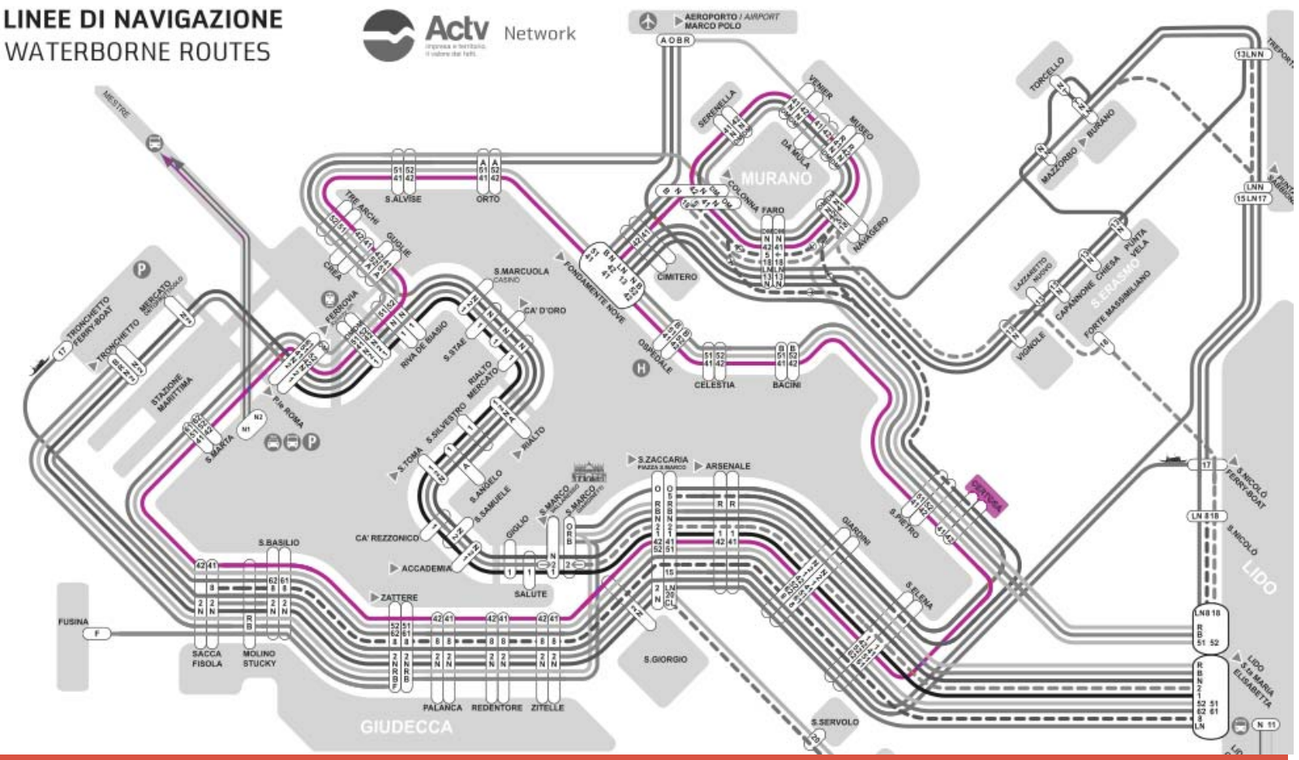

Scheme of water routes in Venice, Italy

source: www.venicekayak.com

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040
Vaporetto city

Hypothesis

Waterways have a huge potential to operate as public transport networks

Theoretical backup

Dutch water cities historically were oriented to water transport networks which functioned very well in the seventeenth century: "Visitors to 17th-century Holland were excited about the comfort of travelling with the towboats and the frequency and punctuality of these passenger services. This efficient network of waterways fueled the growth of this urban system located between the two estuaries [Rhine-Meuse Delta and Zuiderzee]" (Meyer, Nijhuis, Bobbink, 2010). With the course of centuries other means of transportation replaced water transport. Nethertheless, with a tendency to reduce car use in dense city centres and in the search of the new relations with water, development of water public transportation could become a large step in integration of water into urban fabrics.

Moreover, Bruttomesso mentions that a "rediscovery" of waterborne transport system by the public entails relaunching urban mobility through a full exploitation of the potential of waterborne means, and both relieves pressure on the city roads and makes transfers from one part of the city to another more pleasant" (Bruttomesso; 2004).

What is more, encouraging modal interchanges between different systems of land and water and developing them as complex urban structures can facilitate an intense use of services to offer which attract flows of visitors and new users (Bruttomesso; 2004).

Practical implications

Collaborative work of municipalities and transport companies with emphasis on water transportation, development of water stations as small scale public spaces, capable to host not only functions related to transport but other activities as well, finding right strategic locations to connect and providing intermodality between water networks and other means of transportation could help to establish the cohesive and functional system which is successfully used by people in their everyday life.

JB

See also

31_Explorable city space, 03_Water my way, 91_ Transit oriented development, 38_Back to history

041-050
andrea Uberbacher



Figure: Potsdamer Platz
Source: Photo by Anand Jayadevan

051
The After - hours

Hypothesis

Clustering diverse and complementary activities can help to sustain the night life of a city.

Theoretical backup

People generally enjoy going out at night, but if all the activities that contribute to night life such as cinemas, ice-cream parlours, cafes and bars are scattered, then they don't do much for the city. Prevalence of crime in isolated spots is also a phenomenon which may prevent people from going out. However, if complementary activities are clustered together, it will ensure a vibrant, lively and safe centre for people. This also has broad implications on desired safety and control in a place with regard to seeing and being seeing. The Potsdamer Platz in Berlin is an appropriate example of how a land laid waste during the second world war and later the cold war, transformed into a site of major development. It now has many cafes, hotels, restaurants, the Sony center and is home to Europe's largest casino and is the principle venue of the Berlin International Film festival. It attracts 70000 visitors a day with about 100,000 on weekends.

Practical implications

The same principle can be applied on a smaller scale as well. From observation and experiencing a place, about 6 activities can be grouped together to give a sense of night life. (Aleaxander, C., A Pattern Language, Pg 181) These also have to have complementary functions. For example, a movie theatre, a restaurant and a bar. Or a terminal, a diner, hotels, night clubs and casinos. Well-lit, safe and lively places will increase the intensity of pedestrian activity at night. Crime Prevention Through Environmental design or CPTED as it is called is a reltively new concept which outlines measures for preventing crime through the usage of certain design principles. Some of the principles such as the division of the place into public, semi - public ad private zones by symbolic or physical barriers, proper lighting, use of landscape as symbolic barriers etc can help in implementing this pattern in a safe manner.Clustering activities also helps in social control. This pattern also has bigger implications in concentration and diverisity which result in creation of vibrant downtowns. A big city can hold a number of diverse clusters. MK

See also

New life for old buildings; Child - Friendly Cities; Residual Spaces

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Figure: City of the Arts and Sciences by Santiago Calatrava in Valencia,Spain
Source: Photograph by author

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052
'Making' a unique city

Hypothesis

Visionary projects intended for an ambitious and dramatic transformation of a city should be coupled with foresight and awareness of the historical significance to prevent it from turning into a generic city.

Theoretical backup

Various visions and strategies are conceived around the world by stakeholders and governments to put their city on the world map. These are sometimes at odds with the identity that the locals associate or have for the place. Places which have deep symbolic and heritage values for the native people sometimes give way to wider political and territorial ambitions. This tension between the local and global aspirations of the city can sometimes do more harm than good if not envisaged properly. An appropriate example of this would be the city of Valencia. Traditional croplands of Valencia which used to be a productive space and a setting for everyday rural life was replaced by a state-of-the-art 'City of the Arts and Sciences' by internationally renowned but locally born architect Santiago Calatrava.

Practical implications

This pattern calls for a balance between the local and global demands of the city. Strategic visions can sometimes help to revive a dying city. However, these changes should not be so drastic so as to replace the indegenous character of the place. A comprehensive approach integrating the ambitions on a larger scale and taking into account the needs of the natives can help in using this pattern conclusively. If the existing layers are not taken into account, it leads to homogenization which enhances the similarities of cities the world over instead of the differences. Underpining the local quality of the place and utilizing that to celebrate the the larger goal could be a starting point for the global branding.

MK

See also

Urban regeneration; Spontaneous city; Spontaneous city; Urban rules; Acropolis as an idea; Brownfield transformation; City Branding; Integrated Water-



Figure: Brazilian Carnival, Recife
Source: http://upload.wikimedia.org/wikipedia/commons/6/6d/Carnival_Recife_Brazil.JPG

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053
Fiesta Galore

Hypothesis

Urban voids in a modern city can be translated into spaces to rejuvenate the life of a city and let it dream and soar much like an individual.

Theoretical backup

In recent times, people's daily activities range from the healthy, harmless ones such as going to the movies, watching television, watching football, cycling and going for walks down to the downright, socially destructive ones such as shooting heroin, group violence and reckless driving.

There is thus a huge void in terms of socially, sanctioned activities which are the outward equivalent of dreaming. The void is also spatial as informal use of public space is reducing. The kind of inebriated fun provided by circuses and carnivals are fast disappearing from the modern world. If parts of the city is transformed into temporary spaces for events that allow people to let themselves be free, it would go a long way in bringing a city to life and steer it towards a healthy way of enjoyment.

Practical implications

The parts of the city that has potential to transform into a vibrant public arena can be used as a carnival space for mad sideshows, tournaments, acts, displays, competitions, dancing, music, street theatre, clowns and freak events which allow people to reveal their madness. This also results in an urban void which can be well integrated into the city structure. For example, a pedestrian street can be weaved through this area, stalls can be run along the street; an outdoor theatre can be positioned on one end and perhaps the theatre stage can be directly connected to the carnival street. The existing positive spaces can be re-oriented to meet the needs of the particular event. The various activities thus feed and spill into each other to rejuvenate the city.

MK

See also

Residual Spaces; Collective self-esteem. Forever Promenade

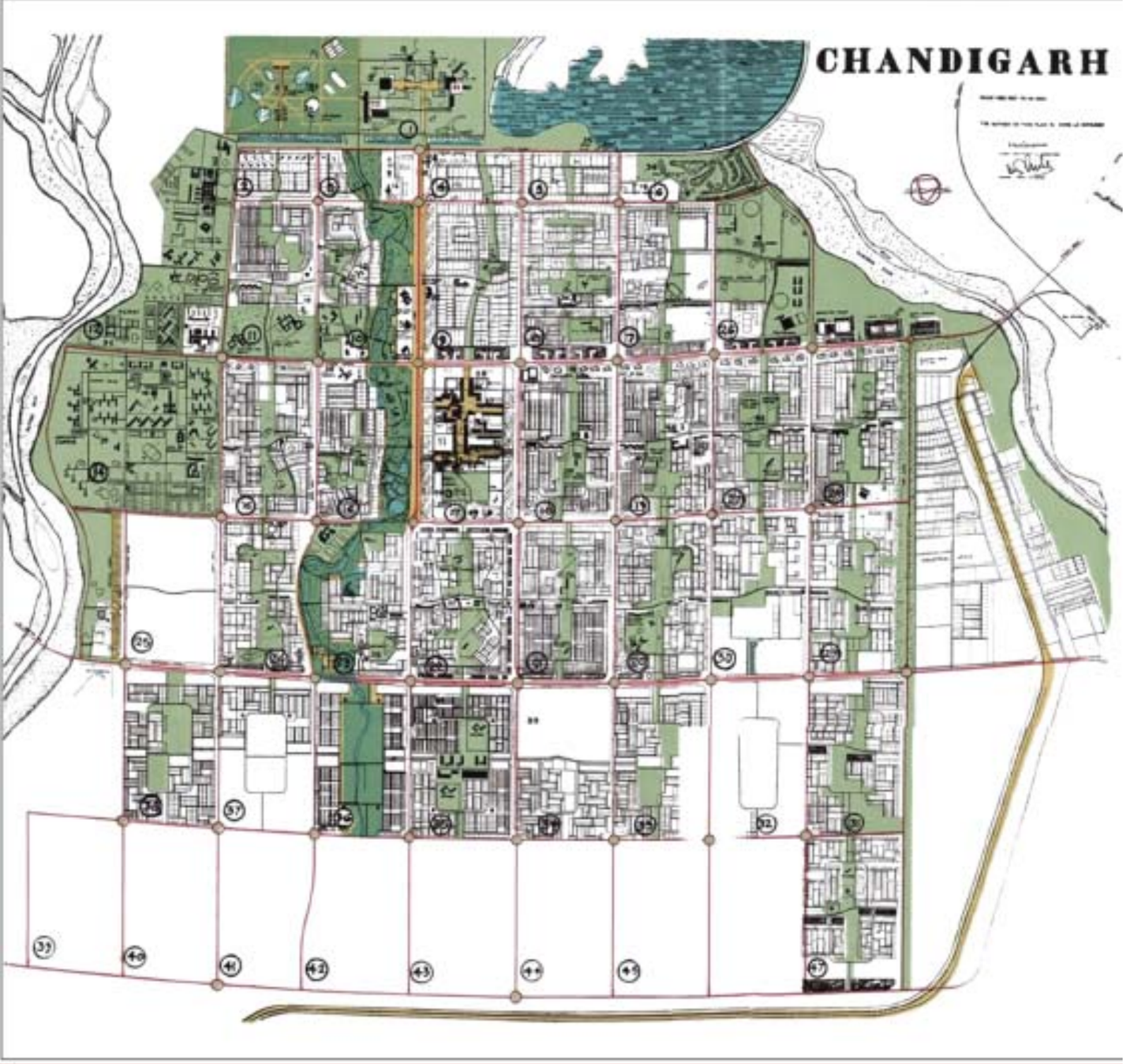

Figure Master Plan by Le Corbusier
Source:http://landlab.files.wordpress.

054
An ‘Alien’ Plan

‘A city concept rooted in western ‘rationalism’ applied in an Asian society commonly regarded to be spiritual in character, may turn out as a ‘fusion’ of different philosophies, with similarities and dichotomies present.’ (Barbel Hogner, 2010)

Hypothesis

If the planning principles are coupled with foresight and study of local conditions, then the facilitation of cultural and knowledge exchange between different schools in thoughts from various countries can be mutually beneficial.

Theoretical backup

Le Corbusier was inspired by the need to establish order and shelter in the aftermath of India’s partition. Even though his utopian social vision was well- intended, the city of Chandigarh was an uncompromising product of Modernist- Urbanist principles of CIAM and therefore completely at odds with the Indian context. The CIAM principles which advocated the clustering of activities by function was alien to the Indian psyche. However, a thorough understanding of local conditions could result in a fusion of philosophies and the plan could be appropriately adapted to the context which is the most important factor in urban design. Context determines the crux of the design as it takes into consideration historical, cultural, landscape and climatic factors of a place.

Practical implications

Big ideas, utopian principles and blue print planning has to a large extent been responsible for contextually indifferent master plans. Extensive studies about existing vernacular planning would be deemed necessary to implement this pattern. In densely populated countries with a high growth rate, it is necessary to phase the development to accomodate the increasing population. Planning restrictions may be strictly enforced to avoid discrepancies to the overall framework. A fusion of philosophies could enrich the lived experience of the city.

MK

See also

Spontaneous city; Smart Densification; Redefined Zoning; Urban rules; Think about generations.

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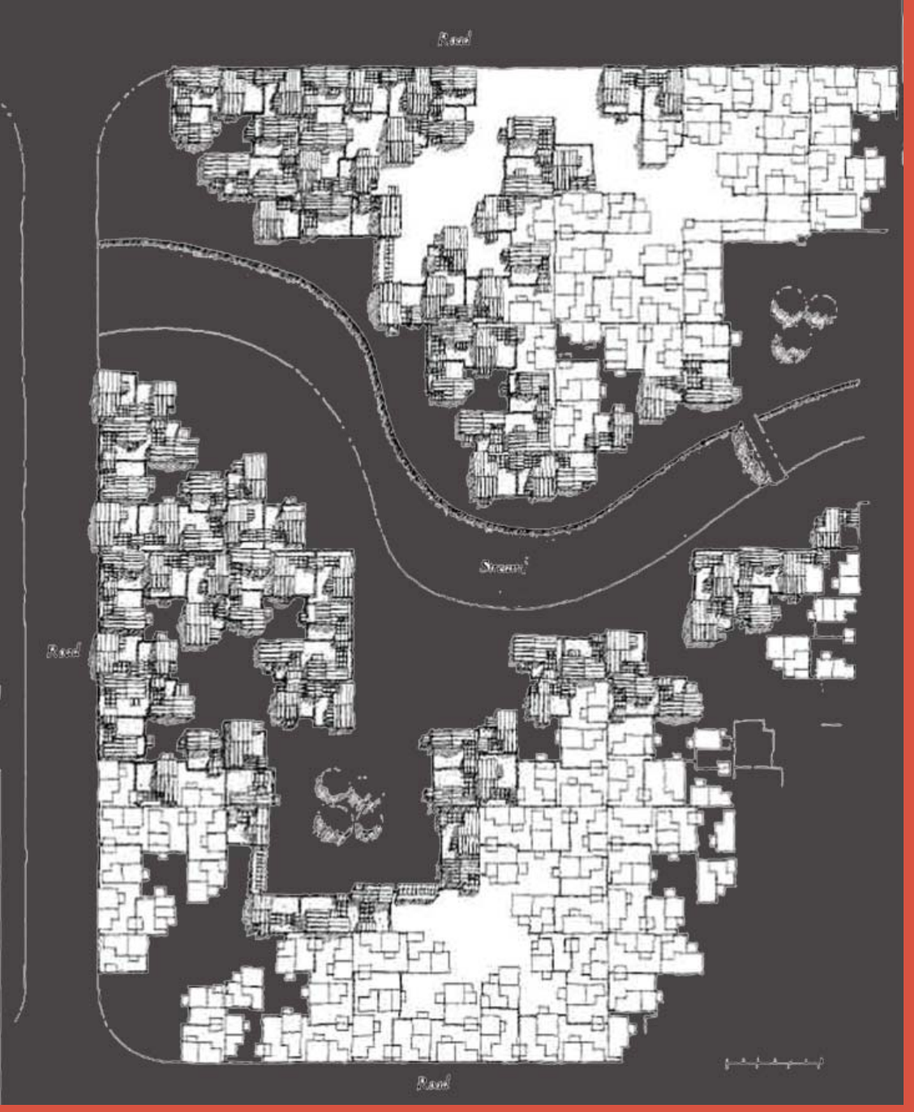

Figure: Housing by Charles Correa, Mumbai
Source: http://www.airoots.org/wp-content/uploads/2008/09/artistvillagesketch.jpg

055
Forever Promenade

Hypothesis

Structuring the morphology of the street to stay in instead of passing - by can contribute to a meaningful outdoor space which assumes different usabilities at different times of the day.

Theoretical backup

For centuries, streets used to provide city dwellers with public space right outside their homes. The modern city has in many ways, created cities for moving through and not for staying in. The streets turned out to be meaningless white spots in the urban fabric. The streets are also unattractive which forces people to spend time inside their homes. To combat this problem of driving people out instead of attracting them into the streets, the pedestrian world outside the houses should be made into a sort of public outdoor room, with more sense of enclosure than a street. A positive elliptical shape with the street bulging out in places and the buildings clustered around the bulge can help to achieve this.

Practical implications

The housing project by Charles Correa in Mumbai, India is an appropriate example of this pattern where streets undertake the dual function of meeting places. Make a bulge in the middle of a public path, and make the ends narrower, so that the path forms an enclosure making it a place to stay, not just a place to pass through. This makes the streets livelier and renders meaning to the space. Adding functions and urban furniture can enhance the streets. Larger implications of this pattern include shopping streets culminating in a public square.

MK

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See also

Here is my backyard; Take a seat; Life between buildings; Grass in public spaces; Lively favela; Fiesta Galore



Figure: Fluted gutter as surface water storage
Source: Photograph by opMAAT, Amar Sjauw En Wa

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056
Visible water

Hypothesis

Visible water solutions are feasible measures that can be implemented in combination with other water management solutions in cities to prevent wastage of water due to a weak urban water cycle.

Theoretical backup

In context of sustainable water management, various solutions have been tried and tested to aid minimal wastage of water. Even though at first glance, the urban water cycle seems efficient, in cases of heavy precipitation, the insufficient capacity of the treatment system results in untreated water being discharged directly into the surface water. This consequently leads to pollution. Nowadays, a combination of solutions are tested to counter this. One of this is aboveground storage solutions which can be combined with othe functions to aid an integrated water management plan. The added advantage of above surface solutions is the fun factor of water in the city as a landscape feature which enhances the spatial quality and beauty.

Practical implications

Visible water solutions for an integrated water plan requires relatively more space than subsurface systems. The streets become wider with open gutters, infiltration systems are larger than storm drains and open retention basins are larger than overflows. Much of the extra aboveground need for space for can be combined with other functions. For example, a hollow road can serve as a gutter, playing fields and public green areas can serve a second purpose as infiltration areas and open lots can assume secondary functions as temporary ponds. In additional to functional advantages, the presence of water in the city adds to an enhanced spatial quality. If the water system is taken into account in the urban planning at an early stage, a lot can be achieved without resorting to radical measures.

MK

See also

Cool the City; In the terrain of water; Porous pavement.



Figure: Public space overlooking the port at Hamburg
Source: http://www.hafencity.com/en/concepts/the-city-of-plazas-parks-and-promenades.html

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Website: www.hafencity.com (last accessed on 28th April, 2013)

057
A Buffer that connects

Hypothesis

The Port area of a city can be turned into a significant public space that amends the social costs of an incorrect relationship between city and water.

Theoretical backup

In the 1930s , American automobile companies such as Ford and General Motors was established in the port area to assemble components. They however maintained an open window to the city. Many port cities such as Rotterdam, Hamburg and Antwerp have thrived because of the advantageous link with the river. Nowadays, this crucial link for a signifcant urban space has been limited to a barely permeable edge in many port cities. Renegotiating the position of the port within the city is necessary for the holistic integrated evolution of the port and the city.

Practical implications

Strategies of infiltration may be utilised to renegotiate the position of the port within the city. What if the city infiltrates the port or if the port holds some urban functions? The edges protecting and sheltering the port can be transformed into space containing activities linking the common interests of the city and the port. Hafen city in Hamburg on the Elbe waterfront is an example of how the intensive intraction between land and water feeds into the vibrancy of the city. This pattern calls for linking the three variables: Port, Water and City in a cohesive manner.

MK

See also

Port heritage; Floating public spaces; Shrinking Port; Integrated Waterfront



Figures: View of Water City Proposal
Source: http://ad009cdnb.archdaily.net/wp-content/uploads/2012/06/1338665488-water-city-close-up-final.jpg

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058
Porous Water City

Hypothesis

Voids existing within a city can be re-interpreted to generate new permeability and pave the way for a shift in the idea of nature to the idea of ecological infrastructure.

Theoretical backup

Porosity is not a static condition. The fractured openings in an urban material interact with it generating new permeability. This concept can be extended to evolve an effective water city by re-interpreting the voids existing within the city in different ways. An appropriate example of integrated water management is illustrated in the 'Water city' proposal in Ayutthaya, the old capital of Thailand by Shma Company Limited based in Bangtok. Their visionary project focussed on a response to a severe flood that inundated most of central plain of Thailand in 2011. Urban planning, economic production activities and the way of living were revised to adapt to nature.

Practical implications

This pattern can be effectively implemented in a sub - regional scale. Integrated water management can be put into practice by preserving and enhancing water as the city's most important ecological infrastructure. This shift from the idea of nature to the idea of ecological infrastructure aids urbanised areas in evolving different patches with different potentials related to their landscape. Reinforcing the connectivity of natural areas to canals and creeks can be a starting point. Agricultural areas can be incorporated into a 'Water detention network' system to serve during flood season. These adapted environments could assume different usabilities depending on the season.

MK

See also

Water facade; Water in a city, threats or benefits.

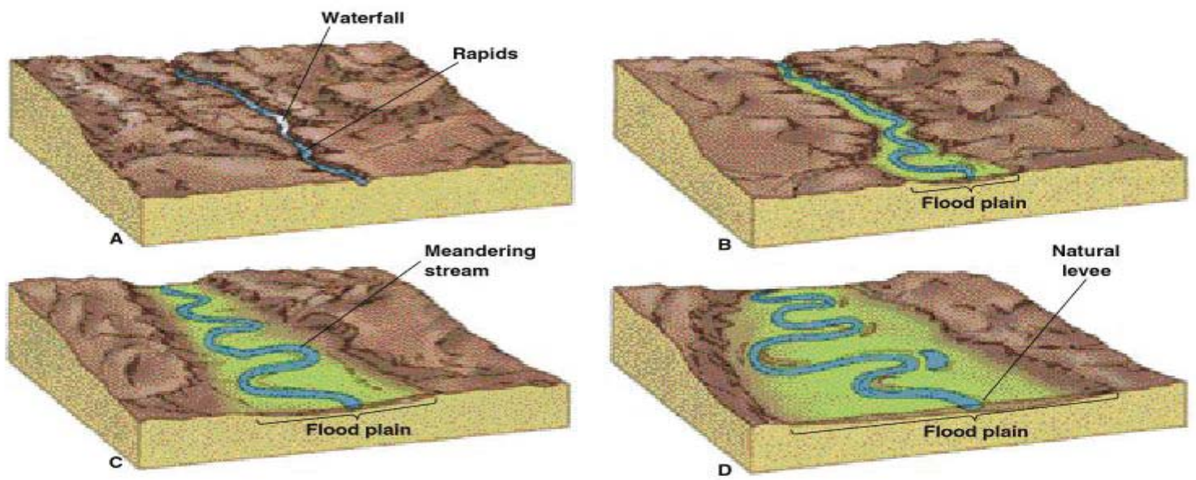

Figure: Floodplain
Source: http://www.coolgeography.co.uk/GCSE/Year%2010/PhysicalWorld/Middle%20valley/landforms_of_the_middle_reaches.htm

059
Smart, flexible and integrated Defence

Hypothesis

In times of global recession, traditional methods of defence strategies such as raising dikes will have to make way for smarter, flexible,integrated solutions.

Theoretical backup

Money, land and decision making play a huge role. Since implementing measures such as river expansion are not immediately very profitable, the progress is quite slow. This makes it mandatory to consider a number of future scenarios with regard to long term measures. Fluctuations in economy, methods of managment, socio-demographics, land occupation and climate change influence these measures. Future dike relocations also become more acceptable from an economic and social perspective if combined with approaches such as ‘room for the river’. The ‘Room for the River’ approach involves giving extra space for the river as a soft defense strategy in opposition to raising and heightening dikes which is a hard startegy and cuts off the relation from the water.

Practical implications

Future dike relocations when combined with ‘room for the river’ create floodplains which result in a flood defensive landscape. The benefit of this is that it does not mean a loss of agricultural land. On the other hand, it creates a situation where farmers accept the probability of incidental flooding and also branch out into river-related activities such as fish and algae farming. It resonates with the idea of floodplains being used for centuries as a medium for growth of biomass, building materials and food production. A softer approach is more benefitial in the long term as many countries in the world cannot afford expensive flood defence solutions.

MK

See also

Landscape the dikes; From Defence to Retention; Recreational defence

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Figure: Bioswale systems as part of requisite green facilities
Source: http://www.djc.com/stories/images/20090105/bioswale_big.jpg

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060
Nature Filters

Hypothesis

Infiltration, buffering and drainage systems like bioswales can be combined with requisite green facilities of a city to form an excellent instrument for urban water systems.

Theoretical backup

Paved surfaces increase the rate of flow of rainwater and increases the load on the sewer systems. It also increases the amount of polluted water. An efficient means of countering both the problems is slowing the runoff of rainwater by capturing it for as long as possible or allowing it to infiltrate immediately. Reducing the proportion of hard surface areas and introducing infiltration systems like bioswales are an ecologically feasible way of achieving this. In addition to effective drainage, bioswales also enhance biodiversity, reduce heat stress and adds aesthetic value.

Practical implications

Water systems like bioswales and rainwater ponds should form a requisite part of landscape design. They should be designed taking into account the local site conditions, the type of soil, the prevailing climate. the utility they would assume when precipitation is low and their annual management. If combined effectively with necessary green facilities in an area, they would take up extra space and can enhance the diversity in landscape.

MK

See also

Restoration of city waterbody; Cool the City; Porous pavement.



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61
Acropolis in context

Hypothesis

Monuments are often “bigger” than their spatial dimensions and they have a great impact on their surrounding environment.

Theoretical backup

Monuments often stand along, beyond their local roots and they constitute an idea rather than a physical element in the city they are found. Cities often face a big challenge attempting to integrate the achronic elements of the monuments in their less permanent tissue.

In his book, Vers une Architecture (1923), Le Corbusieur saw Acropolis as the sculptural embodiment of an idea: a sublime expression transcending all simplified notions of the Classical. However, Acropolis also bears a strong impact on Athenian physical environment. It stands as a reference to the old city’s structure, and to the semiotics of the space used by ancient Greeks.

All these are elements that the contemporary city has to integrate in its complex synthesis.

Practical implications

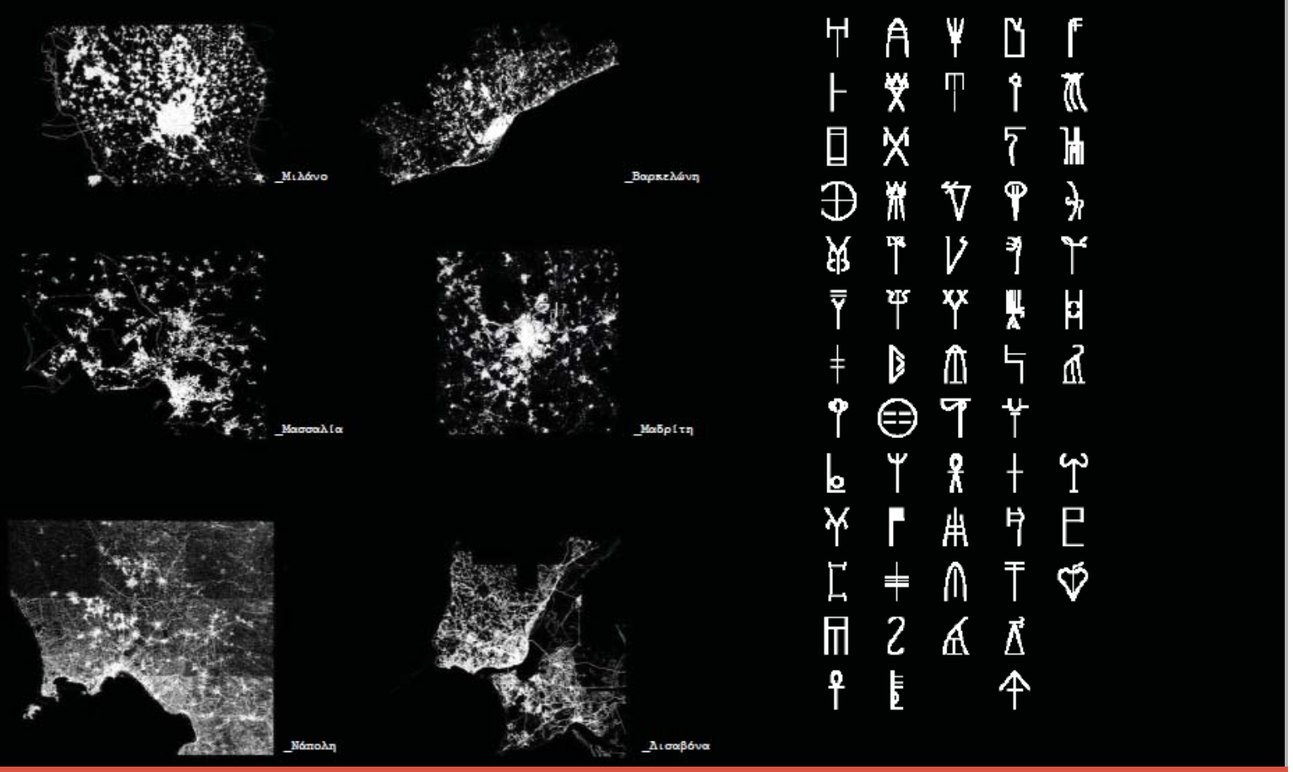
In this frame, this pattern aims to assess an important challenge for the contemporary city. Monuments of the past can often end into being city’s abeyant structure or even “haunt” the city’s future development and evolution.

Architects, urbanists and designers are “commissioned” to form the built environment in relation to the monumental historic elements; Either by creating a “grey carpet”, an homogeneous background for them to stand out, or through an utterly new concept, a contradiction. In any case, new design is always meant to critically respond to the historic context of these elements and, either through conformity or contradiction, to finally stress the qualities of what is already existing.

AC

See also

City’s Artifacts [84]; Remains of the Past [127]



City Maps and hieroglyphics [“La explosio de la ciutat”, Catalogue of the exhibition, Forum Barcelona 2004, COAC, Barcelona, 2004]

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62
City is a narrative

Hypothesis

The different “stories” that each city includes consist the contextual framework for an architect or planner to formulate his/her understanding of the city.

Theoretical backup

Every city constitutes a narrative. The city territory reveals the stories of the people who lived in it. Furthermore it is also constructed by stories that explain the area’s geology, its hydrography and the genealogy of its terrain. In this way, every city is a text-or a hypertext. A set of shapes that refer to other shapes or meanings. The syntax of this language, the relation between the figures or the shapes explains the systems that created the city.

Practical implications

Urban designers should extensively elaborate on the cultural and geological layers that define a city while attempting to build their own “narratives”.

Reading the city’s narrative is the fundamental prerequisite in order to understand the complex essence of a city but also in order to be able to add something on it, to intervene on its synthesis. The map or the airphoto are the most common tools for one to approach the “text” of the city.

AC

See also

Col lective Self-esteem[115]; Steps [82]; City’s Artifacts[84];



Landschaftspark_Duisburg_Nord

63
Residual Spaces

Hypothesis

Residual Spaces are a sign of the “healthy” functioning of the city and valuable components for its regeneration.

Theoretical backup

If one considers the city as an organism that is based on productive activities, then this organism should also produce “waste”. Residual spaces are the by-product of the city. They are areas once parts of the city’s economic activities, such as ports, industries quarries etc that are now found to be no longer used because of the evolution and re-structuring of the urban body. These areas need to be re-introduced to the contemporary city through planning and design scenarios.

Practical implications

Areas that are often characterised as “brownfields”, wastelands, residual spaces etc, have a great potential for the contemporary city. Concepts like landscape urbanism propose the re-use of these “left-overs” in order to achieve urban cohesion and the ecological function of the city. Nature is often the prevailing element that these studies elaborate on as it offers high quality recreation environments, the chance of experiencing the periodical change of the seasons during the year and improves the microclimate of the urban environment.

AC

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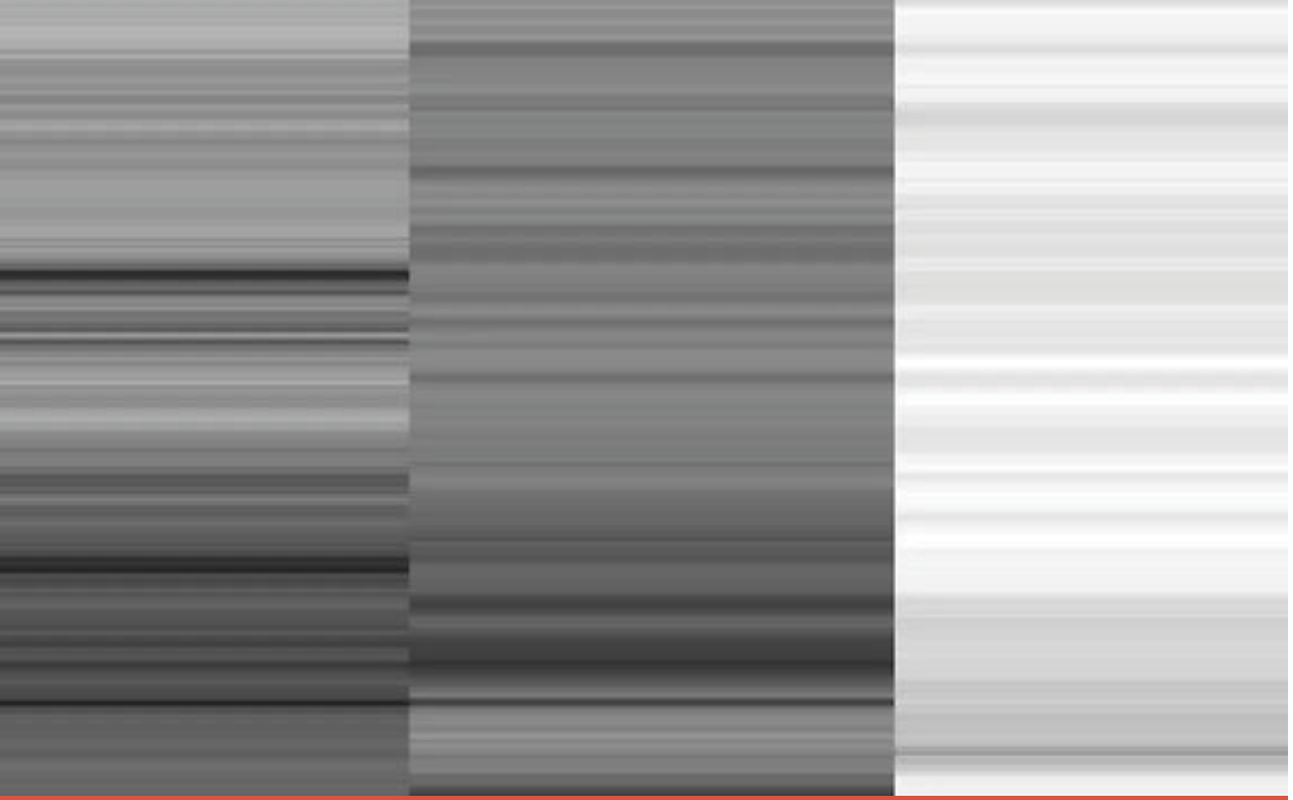
See also

Brownfield Transformation[135]; Drosscape [121]



View from a train window, part III, by Jakusho Kwong Roshi

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64
Slow Experience

Hypothesis

The Dutch Landscape is often experienced as a fast-forward image.

Theoretical backup

In the densely networked region of Randstad, nature stands as the image that is unconsciously experienced while travelling by car or by train. Highways and railways run through the greenfields offering a “cultural” experience of the traditional Dutch landscape to the commuters. However this experience is limited, as the traveller does not really engage or identify with the productive fields that he passes through.

Practical implications

A “slow experience” of landscape could promote the regional identity of the area. Reinforcement of alternative ways of travelling between the cities such as bike riding or the introduction of other slow networks could enhance the citizens’ everyday life. Furthermore, grenfields that are currently underused would offer a competing destination for leisure and recreation in relation to the crowded coastline of the Hague and other seaside areas.

AC

See also

Amazing “animal bridges” [13]



Patchwork Metropolis (Willem Jan Neutelings, 1990) v

65
Design through patches

Hypothesis

In the dispersed form of the contemporary city, the patch, rather than the traditional city block, constitutes the new urban unit.

Theoretical backup

When, in 1989, Willem Jan Neutelings carried out a study for an urban expansion in the peripheral wastelands of the Hague-Rotterdam area, he came up with the idea of an “extensive patchwork carpet, a continuous field of spatial and functional elements covering the area from the sea to the river Rhine”. (Neutelings, 1990, p. 40) The whole project was based on the opposition against the paradigm that sees the city as a red spot in a green territory. Neutelings suggested that, in order to acquire a view of the possible development of a complex area like this, necessitates that the existing situation be interpreted. Indeed, the “Patchwork Metropolis” suggested a way of viewing the city but also a medium to intervene to its “synthesis”.

Practical implications

In this pattern, the patch is a new element that replaces the traditional city block; an element that best corresponds to the scale and the diversity of the contemporary city structure. The patch is defined as an open term, an inclusive and distinctive unit representing the main component of the city. It is an “open structure”; a unit that applies to the multiple scales of urban settlements: extensive infrastructure, suburban-residential units, compact city centers, commercial nodes etc..

Designing through patches means integrating: from buffer zones and underused periphery lands to agriculture production in the urban voids and urban activities in the green midlands. Enhancing the “red” landscape with green dots and the “green” areas with red attributes.

AC

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See also

Green in between [01]; Productive landscape [139]; Land of houses and cows [124]



Water Defence Structures,West Brabant

References

"Van Defensie tot Retentie", rapportage wateratelier Brabantse Delta, September 2007

66
From Defence to Retention

Hypothesis

Old Dutch defence lines can be used as part of a water management strategy as they can be easily inundated in case of high water level urgency.

Theoretical backup

In the Dutch Landscape, military history is strongly related with the water. Indeed, water defence lines have served for many centuries towards the country's safety from the enemies. Large areas, enclosed by dikes and suitable for inundation would oppose to the movement of troops or horses.

Nowadays these structures form a cultural heritage of great value. They are often found together with fortified villages and a range of military landscape structures such as hornworks and bastions.

Practical implications

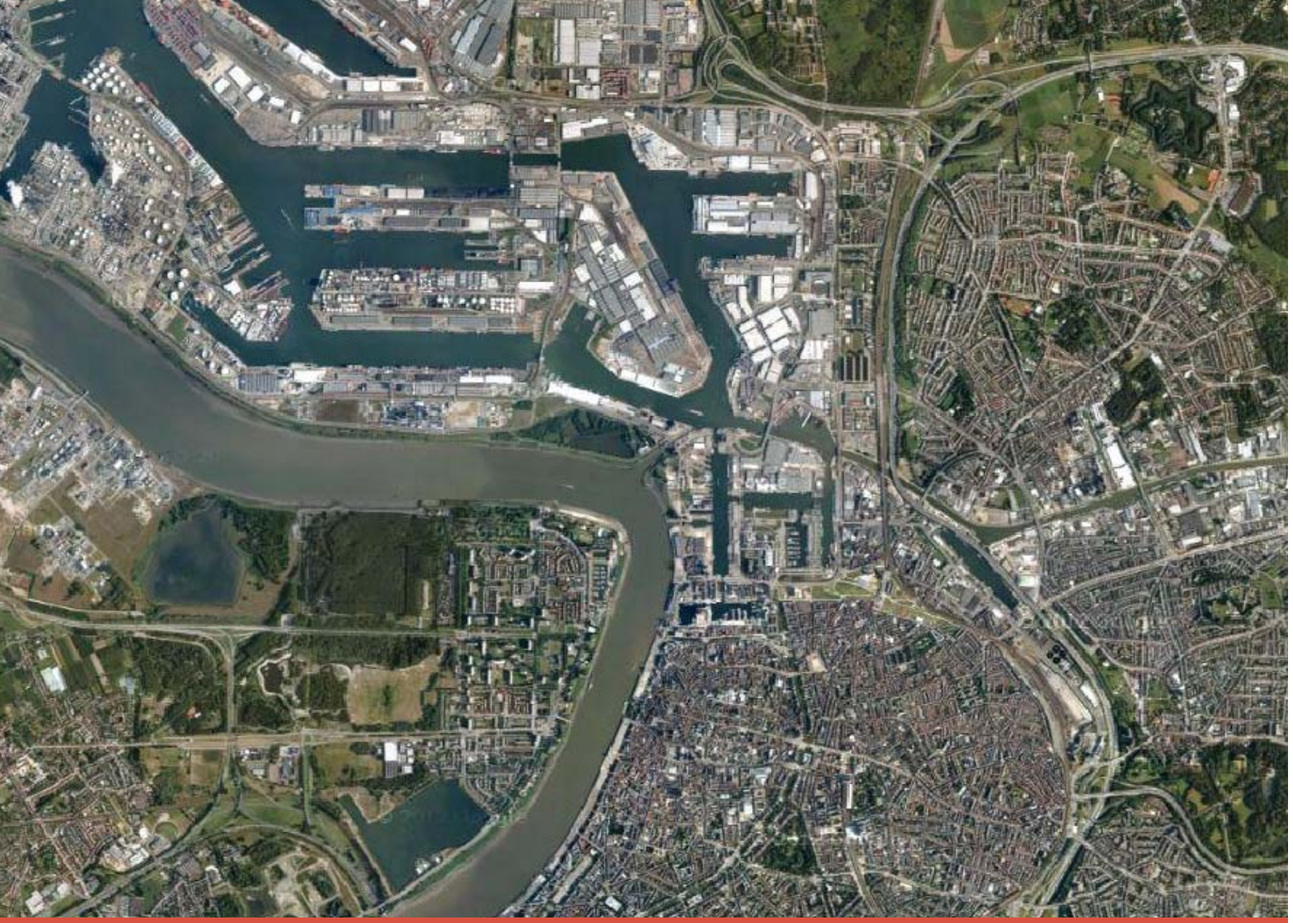
In the frame of the current discource on working with the water instead of against it, the former water defence lines constitute a great potential towards this direction. These areas can now be incorporated in the water management scenario, serving as water reservation areas and flooding planes in case of extreme river discharges.

While the latest Delta works were based on high dikes and strong dams that aimed to restrain the water in tight borders, the structure of the old defence lines could provide "room for the river" in a more sustainable scenario.

AC

See also

Smart Defence [56]; Water in a city, threats or benefits [107]



Antwerp (City and Port). source: maps.google.com

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67
Balanced Coexistence

Hypothesis

Port and industrial areas should be carefully planned in relation to the neigbouring residential environments.

Theoretical backup

As Alan Berger is underpinning in his book (A. Berger, 2007), the city is the manifestation of industrial processes. When, in particular, a Delta environment is assessed, such as the cities of Rotterdam or Antwerp, then the strategic position of port and industrial facilities is often in close relation to the main city sector including residential and commercial activities. The constant development towards economic growth, but also urban expansion, brings the two environments in conflict with one another and sets for urban designers an important role on defining the transition elements in-between the two.

Practical implications

Athough the current approach of designers on the issue is based on setting firm and strong borders, like green buffer zones, water elements and high dikes between industrial and residential zones, however, more sustainable solutions can also be invented. Indeed, “designing the transition” can also be succeeded through the strategic relocation of the dangerous activities in the inner core of the industrial zones, allowing a sequence of different activities, from the more intensive to the milder ones, to be developped towards the periphery of the industrial sector. Furthermore, in-between recreation environments, parks and sport facilities can also contribute towards a successful integration of the diverse activities into the city fabric.

AC

See also

Design throuugh Patches [65] v



Space Sytax/ Global Integration Map/ South Holland.

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68
Regional and Local Networks

Hypothesis

Different environments should be strategically positioned in relation to the networks constructing the contemporary city.

Theoretical backup

The contemporary city does not expand homogeneously to the peripheral agricultural lands. The networks that compose its synthesis are the carrying stuctures for future development: economic, residential, industrial or recreational. Along these networks one can define the level of integration of different environments as well as their potential for further economic growth, Moreover, when ecological networks are concerned, such as waterways or green corridors, then, these also affect the development of areas that offer friendly and safe living or recreating qualities.

Practical implications

In this combination of "slow and fast development", regional and local networks consist useful vehicles in the frame of spatial planning in sustainable development.

Economic activities such as ports, industries and logistics should be placed in accordance to regional, national or international networks, while residential and leisure environments should be formulated in relation to local networks but also ecological structures in order for livable environments to be created. For example, the water network, indeed, can be seen as a carrier of 'Iow dynamic functions', Iike nature development and conservation and quiet recreation, while, on the other hand, the national highways network, consists a carrier of 'high dynamic functions'and structures along its spline industry, trade and commerce, but also mass recreation and most types of modern agriculture.

AC

See also

Slow and Fast [83]



Night view of the port of Singapore

References

Berger Alan, 2006, «Drosscape», he Landscape Urbanism Reader. Charles

69
City and the Spectacle

Hypothesis

City functions often regarded as unpleasant have the potential to stimulate people's interest and, in this frame, they constitute "spectacles" in the cityscape, enriching the urban experience.

Theoretical backup

How could one define the aesthetic value of an industrial site or a greenhous complex? Why people are always attracted by the monumentality of the big infrastructure or the grandiose presence of the windmills?

The questions raised above aim to stress the special virtues of the contemporary city, where what is regarded as dangerous or disturbing is also viewed as insppirational, artistic and stimulating.

Practical implications

Architects and urban designers should always take into consideration the potential of these controversial environments. Athough one cannot regard an active port as open and approachable as a thematic park, however, in-between qualities can always be created. Observation points in the city area that offer views to the port activities could contribute to the overall integration of the residential and industrial environment of a city or an urban district.

Furthermore, suggestions such as making parts of the industrial areas accessible by the public would further promote a more diverse experience of our cities.

AC

See also

Floating Venue[09]; Fiesta Galore [53]



Branding Amsterdam

References

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70
Citybranding

Hypothesis

Promoting the identity of a city, creating a “subconcious” idea of it for both locals and foreigners, contributes to social cohesion but also towards a strong position of the place in the global map.

Theoretical backup

In the “Architettura della Città”, Aldo Rossi explains that the city, as a physical structure, while shaping its form, it gradually ‘develops its own idea about the city as a notion, as a conceptual construction’.

Indeed, if we consider that each city is at the same time an idea, a range of memories, values and ethics that people identify with, then we realize that the well-functioning of the physical structure greatly depends on the formulation, adoption and expansion of this idea.

Practical implications

City Branding and Place Marketing are broadly established strategies in the field of competition and “antagonism” among cities. They are mainly used to promote the touristic appeal of an area, but they also intend to further contribute to the local economy and sustainability.

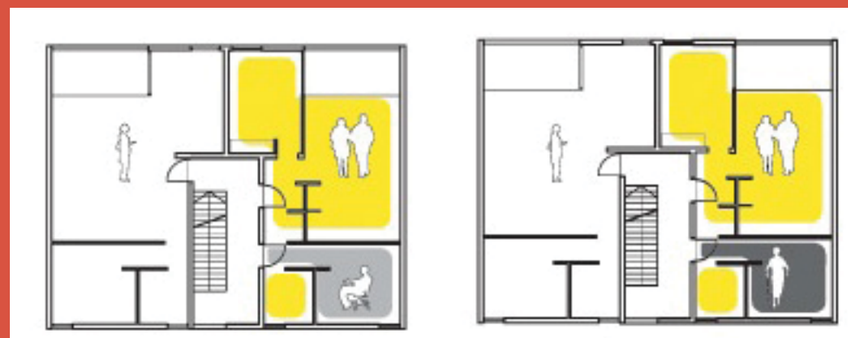
City Branding is also fundamental within the borders of the city itself. When local people feel attached to a common idea and vision, they are able to engage more actively to the best functioning of their environments.

ACV

See also

Making a City [52]





Above: Ramiro Ramirez, Elemental, Monterrey Housing
Below: Diego Ramirez-Lovering and Shane Murray, DASH – Designing Affordable Sustainable Housing

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Alta, N. E., & Özsoy, A. (1998). Spatial adaptability and flexibility as parameters of user satisfaction for quality housing. *Building and environment*, 33(5), 315-323.

071
User adaption

Users achieue satisfaction by changing the physical characteristics of their environments to create more adaptable and flexible spaces. Adaptability and flexibility are quality characteristics of a space. (Alta and Özsoy, 1998)

Hypothesis

Users can adapt their living environment to suit their needs and communicate their identity

Theoretical backup

If residents are provided with the basic components of their house they have a chance to partially build their own home by completing the rest themselves. This is both cost effective and gives a greater sense of ownership and control over their space.

In his essay *Building dwelling thinking*, Heidegger asks what it means to dwell and questions whether building in itself is enough to dwell. If residents are able to contribute to their own dwelling, then they have the opportunity to really “dwell” and make themselves at home.

This idea is also developed in John Habraken's book *Supports: An Alternative to Mass Housing*. Habraken puts forward the idea the State should provide infrastructure on top of and between which people build their own housing.

Flexiblity over the life cycle of a house is also important. Residents can adapt their home as their needs change.

Practical implications

For suitable housing projects, architects can give the end user the freedom to put the final touches on their own home. This could range from the residents building it themselves to being able to choose from a pallet of spatial and material options in order to add individual characteristics to each dwelling.

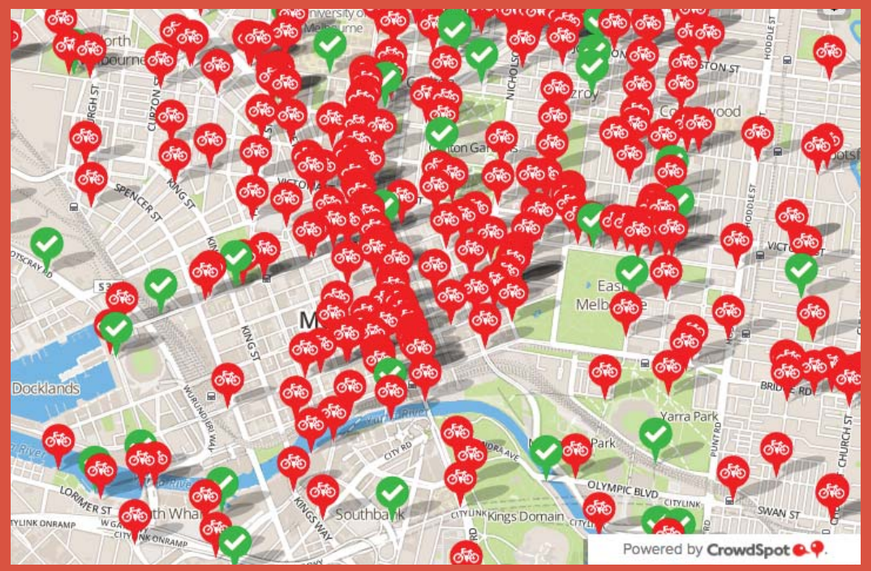
Architects can also built inherent flexibility into their designs allowing users to adapt their home as their needs change, such as when children grow up or when living spaces become working spaces.

KS

See also

Collective self esteem [113]; Lively favela [115]; Play with the context [33]





Above: A crowd [Global Site Plans,The Grid]
Below: Cycle stories, Crowdspot

References

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072
Crowdsourcing

...under the right circumstances, groups are remarkably intelligent, and are often smarter than the smartest people in them. (Surowiecki, 2004)

Hypothesis

Residents and other stakeholders can contribute to urban design and strategic planning through interactive websites

Theoretical backup

By allowing residents and other stakeholders to voice their opinions on the current state of their city and their hopes for its future, planners can create more responsive and inclusive plans for the city.

Municipalities have begun to adopt this method as a way to connect community members with decision makers.

Practical implications

Information gathered from interactive websites could be used as one tool in a collaborative design making process. It could be used to select topics and participants for workshops to guide urban design and strategic planning projects in order to make them more collaborative.

Agencies such as Crowdspot in Melbourne, Australia build interactive maps to gather information for a particular project. *Cycle stories* is an example of such a project. Cyclists were asked to submit locations where they have been involved in a crash and also areas where they feel safe to ride. The results are important as currently most accidents go unrecorded and this study will be used to make a more bicycle friendly city.

KS

See also

Social Sustainability due to Bottom-up [42]; Simulations [73];



SimDelta: a tool contribute to decision making regarding flood protection in the Netherlands

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073
Substantive modelling

Substantive modeling often focuses on integrating knowledge from different sources and making it available to decisionmakers through decision-support systems (Meyer, 2005)

Hypothesis

Substantive modelling can aid collaborative decision making in urban design and planning

Theoretical backup

What are the political, planning and market forces that act on an urban environment? How can they be represented or visualised? Can such a representation assist urban decision makers and raise the public profile of city design?

Meyer (2005) refers to the "many interdependent physical and social variables in the urban system" as "system complexity" and sees substantative modelling as a way to deal with this complexity.

Substantative modelling is a technique to map out certain aspects of the existing built form or environment in order to test out possible future scenarios. The can be used to help urban designers and stakeholders visualise and conceptualise issues on a regional scale.

Practical implications

SimDelta is an example of such a tool, developed by Ties Rijcken from TU Delft. Here information is gathered from contributors and displayed in an easy to understand way. Stakeholders can then use this information to discover innovative solutions and for consensus decision making.

KS

See also

Crowdsourcing [72]; Social Sustainability due to Bottom-up [42]



Green roof on Chicago's City Hall. City of Chicago

074
Green roofs

Cities can be designed to be climate-conscious and energy-efficient to contribute to urban sustainability and address global climate-change issues at the local level. Roof greening presents a feasible design strategy for microclimate amelioration and energy conservation in cities. (Peng & Jim, 2013)

Hypothesis

Green roofs provide an enriching combination of benefits to a city

Theoretical backup

Cities have become major contributors to global energy use and greenhouse gas emissions. This has resulted increased heat island effects which has become a major environmental consideration in the management of cities.

Global climate change also contributes to a higher frequency of heavy rain events, forcing cities to adopt better strategies to deal with storm water runoff.

Green roofs can mitigate heat island effects by adding mass and thermal resistance value. They can also be used as part of a sustainable urban drainage system. In this way they reduce stormwater runoff and delay the peak flow of this runoff.

Practical implications

There is already considerable interest amongst architects and clients for green roofs. Architects can further promote their implementation by explaining the many overlapping benefits of green roofs. In addition to reducing heat island effect and acting as a sustainable drainage system green roofs are aesthetically pleasing, act as insulation for the building and can be used for parks or urban agriculture.

There are two types of green roofs - intensive, which is thicker, more expensive and can support a variety of plant types or extensive, which is thinner, lighter, less expensive and supports less types of vegetation.

KS & AU

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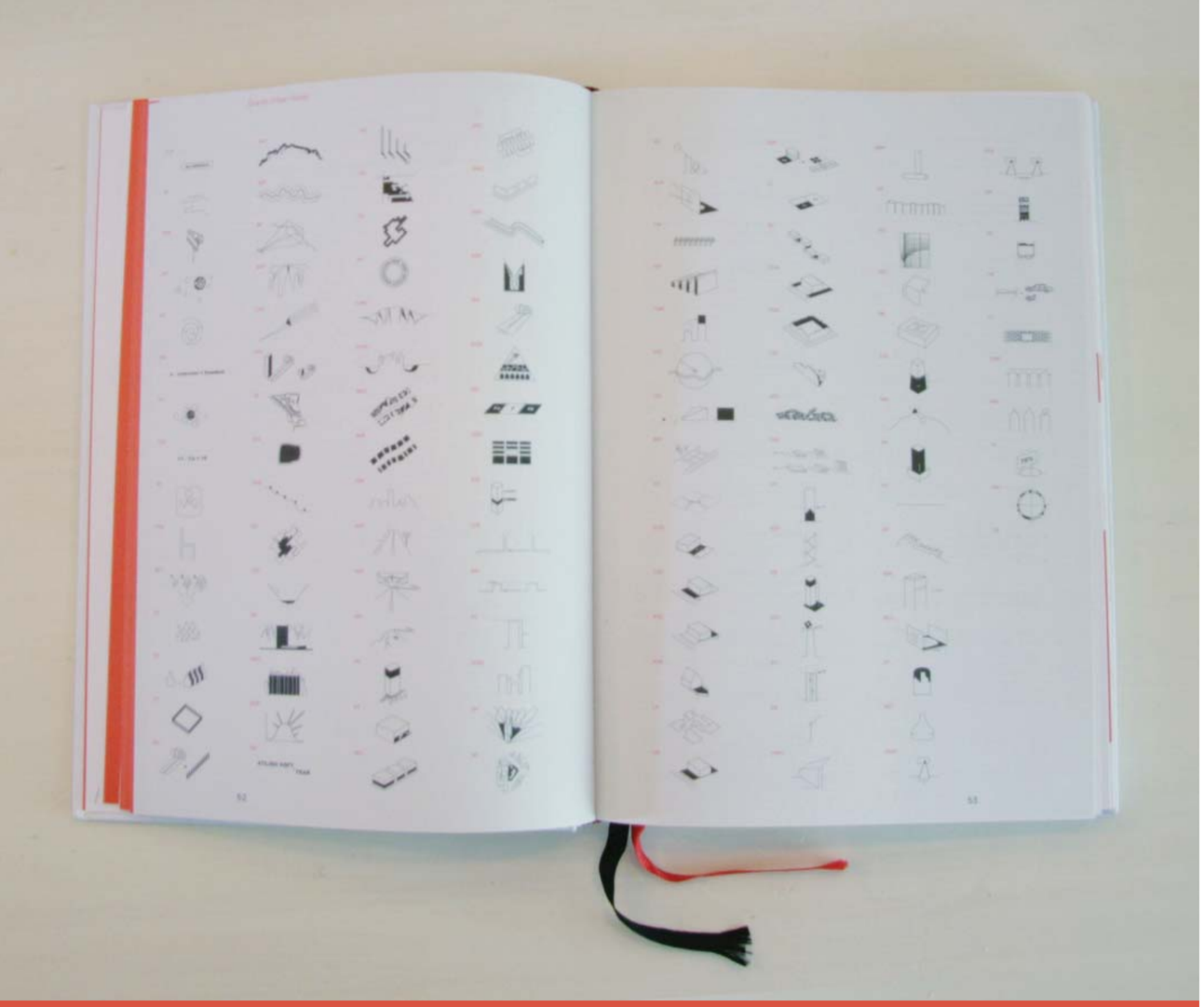
See also

Cool the city [46]; Restoration of city waterbody [30]; Green adaptation for flood managemant [29]; Recreational defense [114]



The urban rules bible: Grand Urban Rules by Alex Lehnerer

075
Urban rules

The enterprise of urban design - that is to say, the linking together of various design visions via the negotiation of a diversity of private and public interests - consists more of the conscious positing of rules than the drawing up of plans (Lehnerer, 2008)

Hypothesis

Rules can be used as a design tool to create flexible plans

Theoretical backup

Rules are used in planning and urban design as a means to ensure public amentity. However they also have spatial implications and can affect the entire form and atmosphere of a city. Urban rules should be used more consiously as a design tool. In contrast to blueprint planning, rules can used to create more flexible plans for the future of a city.

Urban designers can use rules as a design tool to create flexible urban plans. These plans are performative rather than conformative, giving architects more flexibility in the design, allowing for temporal flexibility and as a consequence a more diverse and organic built form.

Practical implications

KCAP's urban plan for Wijnhaveneiland in Rotterdam is an example of a flexible plan. KCAP aim to give market forces free rein in order to accelerate this area's transformation into a lively city quarter, but still control the quality of urban development (KCAP, 2013). The urban designers wanted to densify Wijnhaveneiland with slender towers similar to New York's Greenwich Village (Lehnerer, 2009).

The rules for this development dictate that the existing urban block structure of 20 metres must be maintained. High-rise construction over this level is allowed but only if the building meets certain conditions relating to sunlight, views and setbacks and does not have a volume of more than 22 cubic metres. Because slender buildings are financially unattractive this automatically regulates the construction of high-rise in the area.

KS

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See also

History track [89]; Redefined zoning [43]; Planning gain [77]



Sandorikai, Hafencity, Hamburg. Photo credit: norge_troll

References

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076&087
Floating public spaces and buildings

Hypothesis

Floating platforms can reconnect visitors to the water in tidally affected cities

Theoretical backup

Cities that are affected by the tide and storm surges, such as Rotterdam or Hamburg, build high quays or dykes to protect themselves from the water. This can lead to a feeling of disconnection from the water.

There is an opportunity to live with the water, to build floating structures that move with the water level. This gives rise to new experiences and interactions with the water.

Practical implications

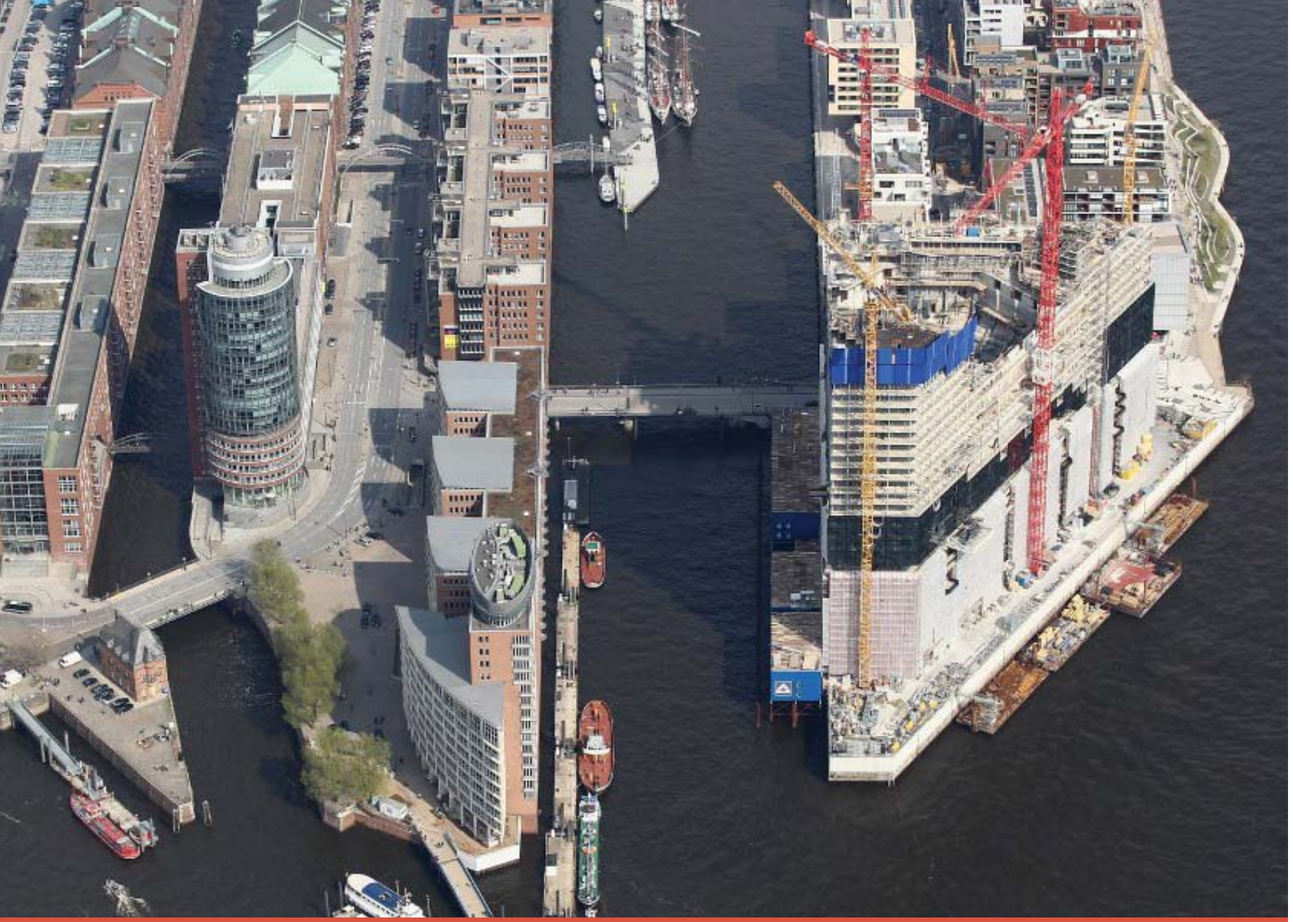
When designing waterfront public spaces, urban designers can consider creating floating platforms to allow visitors to engage in a more dynamic way with the water. Platforms can be quite thick allowing for “cellar” storage underneath the surface. Pavilion structures such as restaurants can then also be built on the floating platform.

There is the potential to host a diversity of function on a floating platform, from a dock, a public space, a restaurant to even floating housing.

KS & AS

See also

Floating venue [09]; Hinterland Water-Storage [47]



Control over types of development and urban design guidelines have lead to a successful urban development at Hafencity, Hamburg. Getty Images.

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077
Value capture

Planning gain is the legal process by which property development is linked to social provisions (Healey, 1995)

Hypothesis

Setting conditions for developers can lead to higher quality developments with greater social gain

Theoretical backup

Market led developments often concerned more with immediate financial gain than the quality and long term success of a project. They can also be monofunctional areas as the developers would prefer to work with fewer stakeholders. There is an opportunity to create higher quality developments by incorporating conditions for developers in the planning code or guidelines for a specific project.

Value capture mechanisms have been employed by planning authorities to try and ensure that the community recovers some of the value generated by new developments. It can take the form of a taxation, an agreement or a policy initiative.

In the UK this process is known as planning gain and has been used since the 1980s to guarantee the supply of affordable housing. All new developments must include 15-20% affordable housing. In this way developers contribute to the cost of social housing.

Practical implications

Although drafting policy initiatives is outside the scope of most urban designers, this concept can be applied in a slightly different manner.

A type of value capture has been used in the development of HafenCity in Hamburg. The City of Hamburg is the owner of the land which gives them a great amount of control over the development. Tenders for building projects were awarded on programme not on cost, with the organisers pushing for a mix of functions. Strict urban design guidelines and a series of meetings with the developer ensure quality in urban design.

Urban designers need to find ways to provide developers with conditions in order that new developments also contribute to the community.

KS

See also

Redefined zoning [43]; The role of governance [23]; Urban planning and economic development [25]; Danwei welfare housing [28]; Urban rules [75];





Above: Amsterdam bridge house, Loes de Ruiter
Below: Bridge houses represented as “sweets”, Space & Matter

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078
Concept pitching

Architects need to redefine their role, transform themselves from extremely competent executors of assignments into entrepreneurs and producers (Oosterman, 2007)

Hypothesis

Architects and urban designers can create their own work by developing concepts and pitching them to potential clients

Theoretical backup

In times of recession architects and urban designers often struggle to find work. Many enter competitions but this can be a futile excercise given the large number of entrants. One alternative is to use their capacity for creative and lateral thinking to develop new concepts that could be translated into real projects. Architects and urban designers then indentify potential developers, land owners and financers and motivate and convince them about the project. They can also use alternative funding models such as crowdfunding to get the project off the ground.

This can give rise to new and innovative projects, taking advantage of possibilities that only a designer can see.

Practical implications

An example of this process can be seen in the Sweets project by Amsterdam architecture and urban design office Space&Matter. They had an idea for a distributed hotel concept saw potential in the “bridge houses”, the small control rooms for openable bridges throughout Amsterdam. When it was announced that these control rooms would soon be made obsolete and they saw their chance to realise this idea. They partnered with a developer and approached an established hotel company who fell for the idea and are now in the process of implementing it.

KS

See also

Grassroot strategies [44]



A not very accessible sidewalk {Pedestrian Liberation}

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079
Think about generations

"Children are a kind of indicator species. If we can build a successful city for children, we will have a successful city for all people" (Enrique Peñalosa)

Hypothesis

When designing an urban district it is important to think about what it would be like to live there in all stages of life

Theoretical backup

When designing or re-designing an urban district it is easy to forget some parts of society. Frits Palmboom of Palmbout Urban Landscapes includes "think about generations" as one of six devices he recommends considering whilst designing an urban area.

Making a districts safer, healthier and more accomodating for its most vulnerable citizens can make them extremely liveable for everyone else.

There are a number of organisations world-wide that promote 'child friendly cities'. The Department of City Planning in New York also tried to make their city more "age friendly", hosting focus groups with elderly residents. Participants wanted a neighbourly feeling, where its safe to cross the streets and they have plenty of places to rest.

Practical implications

When designing an urban district you should think about what it would be like to be a child, an adult or a grandparent living in the area that you are designing. Are there enough schools in the area? Playgrounds? Access to public transport?

Child friendly cities have access to green open space, public transportation, clean bathrooms and safe places to rest. When designing for elderly and the disabled, wayfinding and accessibility are especially important.

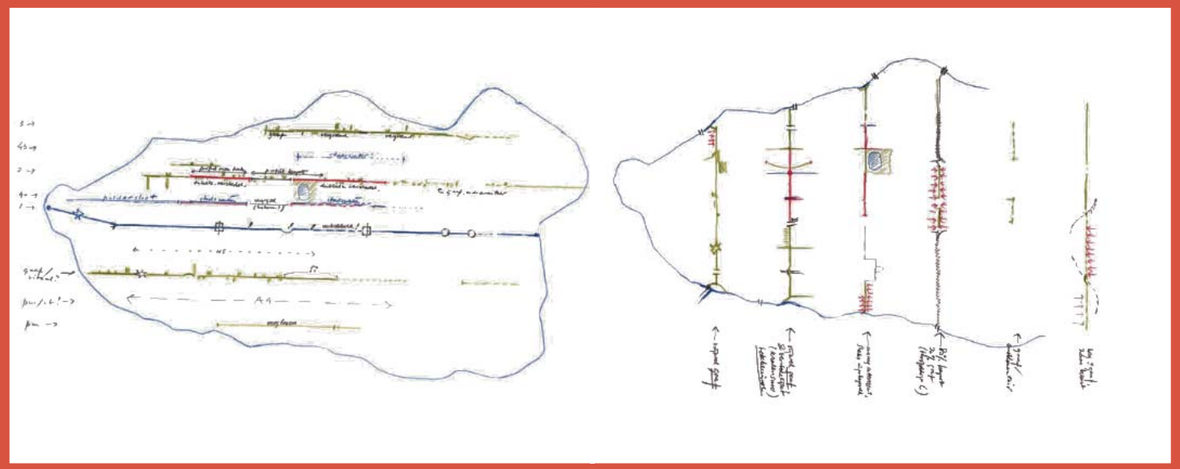
Thinking about generations is more than considering current accessibility and access to facilities but also thinking about how neighbourhood demographics change over time. A new housing development with young families will need a school, but can this be transformed into a community centre when the children grow up?

KS

See also

Places to meet [34]; Child friendly cities [35]; Human scale neighbourhoods [32];





Above: Site visit, Jeffrey Clancy
Below: Exploratory drawing of Zuidplaspolder. Frits Palmboom.

References

Palmboom, F (2013) “Design in the delta” TU Delft University, Delft. 11 March 2013. Lecture.

Corner, J (1999) The Agency of Mapping, Mappings. London, Reaction Books.

080
Go out and get in touch

(Mapping's) agency lies in neither reproduction nor imposition but rather in uncovering realities previously unseen or unimagined. (Corner, 1999)

Hypothesis

It is important for urban designers experience the distances and adjacencies of the site they are designing, both in person and with pen and paper

Theoretical backup

Getting to know the site of your intervention is an obvious starting point for most urban designers but its importance is sometimes forgotten.

Frits Palmboom of Palmbout Urban Landscapes urges designers “go out and get in touch” with the area that they are designing. He suggests two ways of “getting in touch” either by simply visiting the site or by getting to know the site by pen and paper.

Physically visiting a location gives more insight than ever possible through looking at photographs and maps. Only by being on location can you better experience distances and discover unexpected adjacencies.

Practical implications

When we visit the site we experience the light, soil, spatial qualities, how objects relate to each other, what the atmosphere is like, subconsciously recording and observing everything about the location. We might take quick sketches or photographs to further record our experiences.

The process of mapping can also generate new insights. Mapping out different layers of the site can help the designer better understand the area and unlock hidden potentials of the location. When Frits Palmboom was analysing Zuidplaspolder, he sketched horizontal and vertial lines separately, giving rise to a new understanding of the existing condition and influencing the final design.

KS

See also

Human scale neighbourhoods [32]; Design dimensions [90]





Above: Private house in Delft in front of the New Church, the green light out of the living room gives a paricular atmosphere to the close context.
Left: Bokehh effect of some light spread out of a pub in Brighton, UK.

References

Sage Russel, 2012, The Architecture Of Light: A textbook of procedures and practices for the Architect, Interior Designer and Lighting Designer.

081
Light Pattern

Hypothesis

The use of light in a public space can deeply affects the surrounding public space.

Theoretical backup

It happens to walk during the night in a dark or badly illuminated district and it feels like an unfriendly place, enough dark to allow crimes to be committed there, thus it's easy to start walking faster to reach soon a “safety place”. The same place would look pretty different if properly illuminated, not just with cold public lamp along the road but also with the glare spread from the surrounding houses.

Practical implications

Open, public spaces illuminated from the windows of a private property or from the light of a commercial activity, which can be a disco or a restaurant, look pretty much different than the same places illuminated by a public lamp or not illuminated at all.

Often the small , spontaneous intervention of leaving a light turned on in a private living room during the night might give another appearance to a public space. Lights which comes from a private environment where “something is happening” is like they also spread the warm atmosphere of that place, giving thus some vitality and quality as well to the surrounding areas.

AS

See also

Something roughly in the middle [92]







Baunei, Italy, from top right counterclockwise:
The perception of public and private is not related to fences or barriers or gates but it happens spontaneously according to the narrow step path or the large flat roads.In the next picture the plastic urban morphology allow to change height level without any sudden height changes. The roads which run perpendicularly to the main ones are often made by steps.

082
Steps

Hypothesis

Steep slopes affects the urban environment as the architecture typology and the citizen lifestyle.

Theoretical backup

The differences among the settlements which belong to a fat land or a steep slope are not just the different house typology but also the different urban morphology which characterize the movements inside the urban environment. Among the old Italian villages, some of them are characterized by a very fluid and mono-directional street pattern, this come spontaneously from the need to make a comfortable and accessible city out of a slope. We mainly recognize the major roads among the direction of the contour lines, which mainly are flat, large and accessible to vehicles while the roads which climb the hill are mainly narrow, of a secondary relevance and they might be made out of steps.

Practical implications

In those places accessibility plays an important role, thus the narrow roads which attempt to climb the hill with steep slopes or infinite steps they reveal themselves as intimate public spaces which sometimes becomes the private square or the “private public road” of the people which are living there while the major roads , the ones which go through the village parallel to the contour lines are perceived as the place for the community thus facilities, services and commercial activities in general are placed spontaneously according to this position. In a plan view of such a places would be impossible to recognize and categorize those narrow private streets and the other main large and flat roads which would be quite helpful to define the atmosphere of the place. A section or a graphic elevation or a three-dimensional model would better explain the rhythm of the place and would give to the designer a wide understanding of the place in order to organize functions, leisure, public intimacy and so on.

AS

See also

City is a narrative [62]





Top right counterclockwise:
Plan view fo the A13 highway near Delft, among this section of the road there is no one exit ,thus both the country side are completely separated without any chances of relation. Next picture is a section of the N466 close to Schipluiden, in this case the road offers multiple relation with the context, this quality allow new functions or just leisure to whom is driving or walking there. The next picture shows an example of both fast and slow network where the first one runs underground which allow to the second one to go above it and let them cooperate each other.

References

Cristophe Girot, 2013, Landscape Vision Motion (landscript)

083
Slow & Fast

Hypothesis

The slow landscape connection develops the surrounding context where the fast connection creates a barrier.

Theoretical backup

The network of infrastructures is different not only because of the size of the lane or the speed which is allowed to drive or the length of the road itself, the division between local roads and regional ones it's mostly related on the relationship those roads have with the surrounding context. Often happens to walk in some districts on the periphery of the city and suddenly we face a wall behind which a loud noise of cars comes from, we will find as much difficult to cross it as much we will walk on its side.

Practical implications

The relation with the context should be at the head of the infrastructure project, fast regional roads which don't have several exit should be plan in order to not interfere with the "close neighborhood" . Thus they should be underground covered by green spaces and allow slow connection to deal with the context and let "slow vehicles" to go ahead according to the slow scale of the urban environment.

AS

See also

Regional and local network [68]; Relativity concerning auto oriented development, public spaces and integrated society [105]



Palazzo della Ragione, Padova, Italy:
The old monument in Padua has been changing function from he old past but the atmoshpere in public spaces in front and in the back of it is always the same. The construction itslef no matter which function or particular shape is well liked among the population, thus it allows several functions outside and people in general hang out there.

References

Aldo Rossi, 1982, The Architecture of the City

084
City's Artifacts

Hypothesis

The city is a man-made object characterized by artifacts. Among the wide variety of monuments from the past they can be propelling elements or pathological elements.

Theoretical backup

Taking into account the theory of permanences from Poetè and Laverdan, as Rossi explain (Rossi,1982) among the built environment of the city there are some parts which "last", thus they're considered as a propelling elements in regards of the beauty and economy of the close environment , or they might be considered as pathological element and they may appear as isolated and "aberrant artifacts" which characterize the city only because they are still there but they don't produce any particular development.

Practical implications

A study regarding the appearance of the artifacts may be appropriate to add to a more general monument's analysis because is something that is not related to the history or the actual physical condition of the artifact while is related to what people feel about it. An ugly old and ruined building can still has a permanent character which bring vitality to the context it belong to. In this respect a map which according to a survey would indicates the great permanences of the past would indicate which place or monuments need more attention and the same regarding the public space related to it.

AS

See also

Landscape Tracing [127]; Acropolis in Context [61]; City is a narrative [62]





Delft, Hyppolytusbuurt:
Along the same canal in the city of Delft we might find the same type of bench wich according to this difference of level they reveal them with an opposite meaning, one is open and it deals with the context, the other one is looking to the canal and because it's below the road for some steps is not dealing at all with the close road.

085
Mind the step

The enterprise of urban design - that is to say, the linking together of various design visions via the negotiation of a diversity of private and public interests - consists more of the conscious positing of rules than the drawing up of plans (Lehnerer, 2008)

Hypothesis

The perception of a bench it changes when this is on the same level of the street or when it is on another level.

Theoretical backup

The relation we have with objects and the accessibility we have in their respect it mainly depends on the differences of levels that divide us from that place. Taking into account a bench, if that is located on our same level in the side of the we perceive it as constituent part of the road and that place but if the same bench of the same place is located on a different level, below or above our level of eyesight we perceive it as a very cozy place.

Practical implications

When designing a public space would be useful and smart to take into account those different levels just because a flight of steps or a platform would make the difference to what a public bench would means to whom is looking to use it. In this way would be possible to create different type of space according to the quality of the environment.

AS



Oud-Beijerland, Dyke: The visual wall created by the dike in this case deny an open relationship between city and water, the bench upon the higher part can be a modest example o recent combination.

Naarden: The earth's bastions used to prevent enemy's attack are now transformed into a garden\park and often , some of them include a characteristic private house.



References

Delta program,Rhine-Meuse Delta, Opportunities for the current flood risk management strategy in 2100

086
Soft Gates

Hypothesis

The use of the dike to divide water from land has never really been combined with the design of the landscape, the potential of this combination is incredible to what concern the design of open spaces.

Theoretical backup

Technology is raising incredible levels especially in the last half century, mankind is able to divide water from land using artificial devices but at the same time the discipline is not combined with the essential design of the land. Especially in the Netherlands this causes a lack of quality to what concerns those places surrounded by the dikes, the link with the water in particular for those villages which belong to a water-related tradition it's an essential feature which cannot be underestimate.

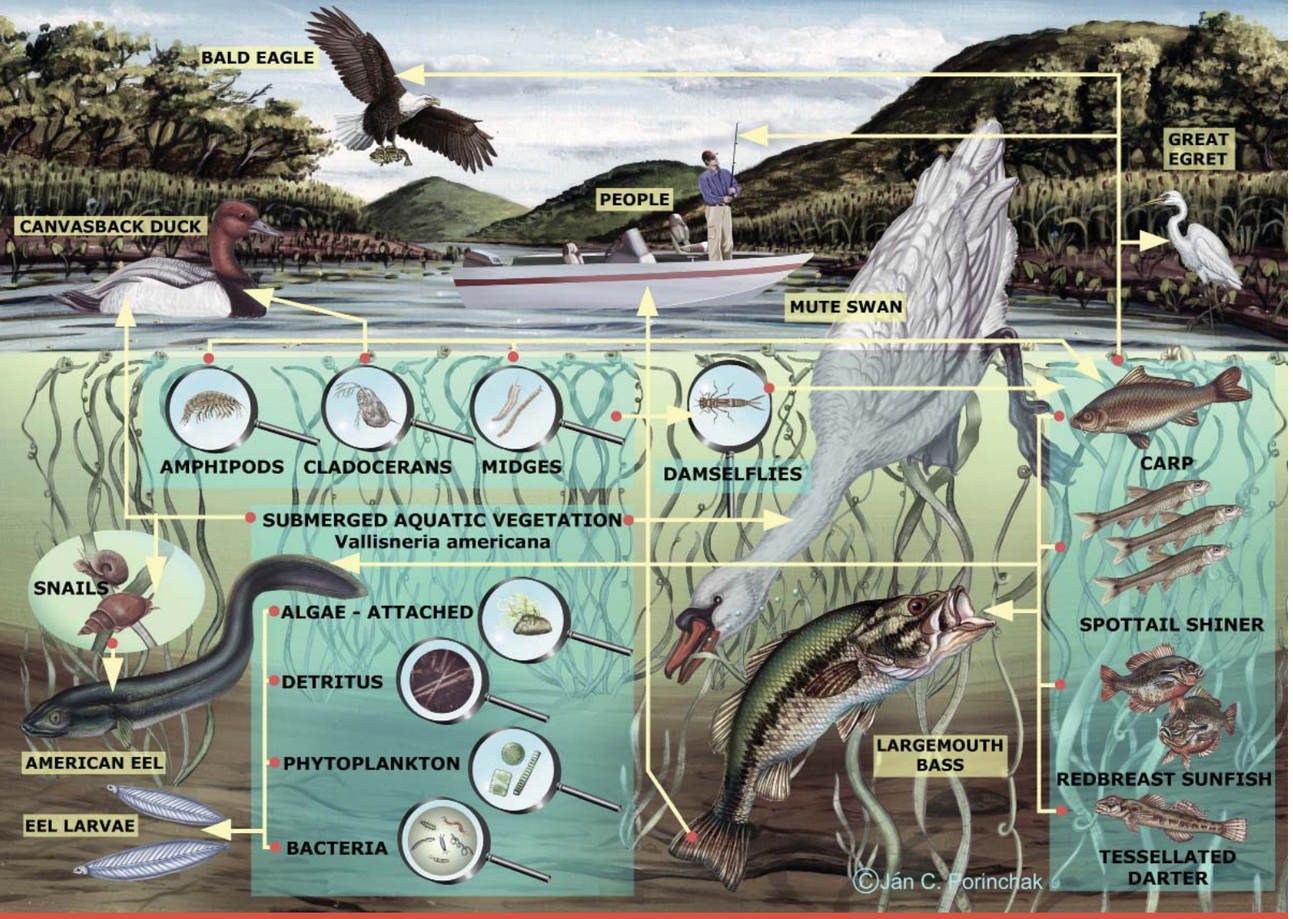
Practical implications

Firstly designers and engineers should team up together in order to develop a planning board with a certain ethic related to the dike's function and design. The superimposition of the dike as an engineering trophy have to deal with the surrounding context , thus the landscape design. A dike itself can be an infrastructure (as in many cases) and also a "platform" where different kind of structures and open spaces could be realized. The opportunities offered by such a combination would change on the one hand the appearance of the landscape and on the other hand the original relationship with land and water.

AS

See also

Recreational Defence [97]



Top: Freshwater biological system, belong to it certain types of flora and fauna
Botton: Flamingos are typical brackish and salty-water animals beacuse of their food-chain



088
Not one water

Hypothesis

In the delta areas the mix up of sea's salty water with the river's fresh water engender different brackish water gradients which create different natural environment of flora and fauna.

Theoretical backup

Often the salty water is considered related to the sea, ports and a certain environment while the fresh water is related to rivers, lakes or canals and thus associated with a quite another context. This separation doesn't give room for other opportunities related to different gradient of water salinity because of several factors among which the source of water for irrigation purposes and the problem related to the material's erosion due to high salinity level in the water. However the different type of water immediately create biodiversity which is directly translated in progress to what concern the natural evolution.

Practical implications

When there is the chance to mix the two different water's salinity there should not be a moral "wall" from the actors involved while there should be a discussion to what regards the possibility of creating a new environment. In example the mouth of a delta river can be divided into several partitions, which would allow to have different "lanes" according to the salinity water level. Parks could be created in order to mix leisure with biodiversity knowledge and with a certain strategy farmers would benefit of fresh water and people and land of a more flora's and fauna's variety.

AS

See also

Water Square [12]



Oud-Beijerland, Sluis: The gate in the historic centre of the village is a symbol,thus they renovated it with different and precious materials

Schipluiden molen: There's no comparison in the historic value of a old fashion wooden windmill and a new lifeless eletric one.



Dordrecht: Clasic XIXth century's dutch gable in a central street, its shape is symbol of wealth of whom is living inside.



References

Aldo Rossi, 1982, L'architettura delle Città

Fausto Cuboni, 2001, Architetture in pietra delle Barbagie, dell'Ogliastra, del Nuorese e delle Baronie

089
History track

Hypothesis

Urbanized areas gain benefits from their historic layers. The morphology of a city is strictly related to his history and the different architectonic typologies are related to the city's morphology.

Theoretical backup

Often, among the old cities, the quality of the place is given by its historic value. Building's typology belong to a definite historic moment and they express the soul of the place, its identity and also its vocation. Not just building features and facade's color are the example but also the type of land use and the function to it related are values which give potential and vitality to the place. Frequently those features are gone because of recent modification which don't take into account the identity and historic value of such a feature. Colors , shapes, wall , ramparts and also devices such as windmills, gates and locks are always more often left aside and changed because of new technology or lack of interest. This causes an enormous loss to what concern the potential and the vibrancy related to historic feature.

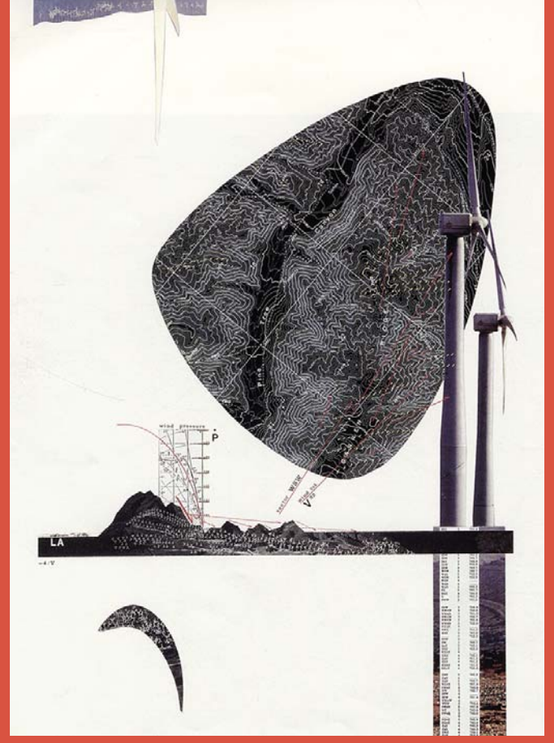
Practical implications

Regulation should be imposed in order to deny at priori occasional changes in relevant historic devices. Even if any type of renewal is essential to preserve the state of the art and the perfect functionality of the feature, a zoning plan should indicate which area should be preserved and which not with precise accuracy. Not just height level and building's distance but also colors, material, shape and technology are essential characteristic of a defined historic period and therefore it should be maintained. The place will maintain identity and it will preserve all the potentials to it related.

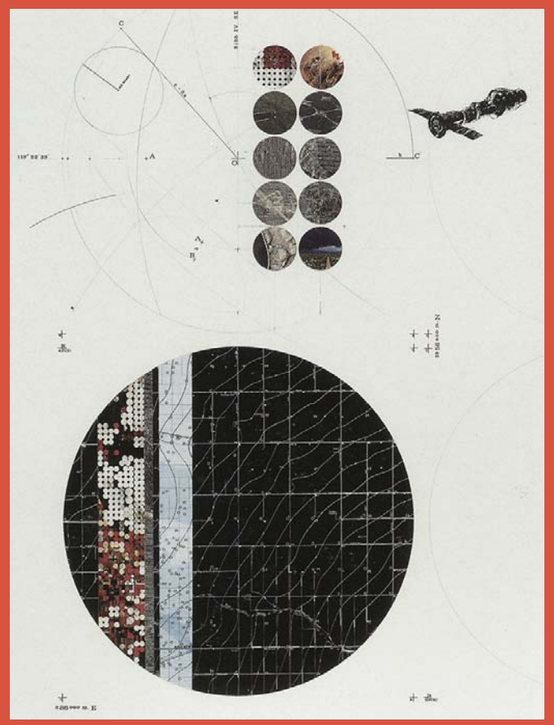
AS

See also

Landscape Tracing [127] Urban Rules [75]



James Corner, from top to botton:
Study of windturbines in the landscape, the drawing shows in a different way the impact of the structure in the landsacpe, different techniques are used to explain the program. Same thing in the drawing below, that one is related to different techniques to take measurements.



References

James Corner, 1999, The Agency of Mapping

A. Berger, 2006, Drosscape. Wasting land in urban America.

090
Design dimensions

Hypothesis

Representation technique and maps even if plotted in a flatten sheet they could represent reality with other dimensions according to different design's parameters.

Theoretical backup

The maps we use to confront us, or a project, to reality too often they lack of imagination and coherence, the perception of reality we are used to experience is related on how we perceive space and often this is well rendered in a such a limited flatten map. This allows imposition and inconsistency of the desired product which will differs in his final and real version from the design proposal. The act of mapping is one of the most important step within the design project, it allows the designer itself to better understand its own project and it's the vector to communicate what's "going on" in the brain of the designer which often it's quite complicated. New form of design, as James Corner explain in his text The Agency of Mapping, would have the power to visualize what sometimes words and common drawings can't.

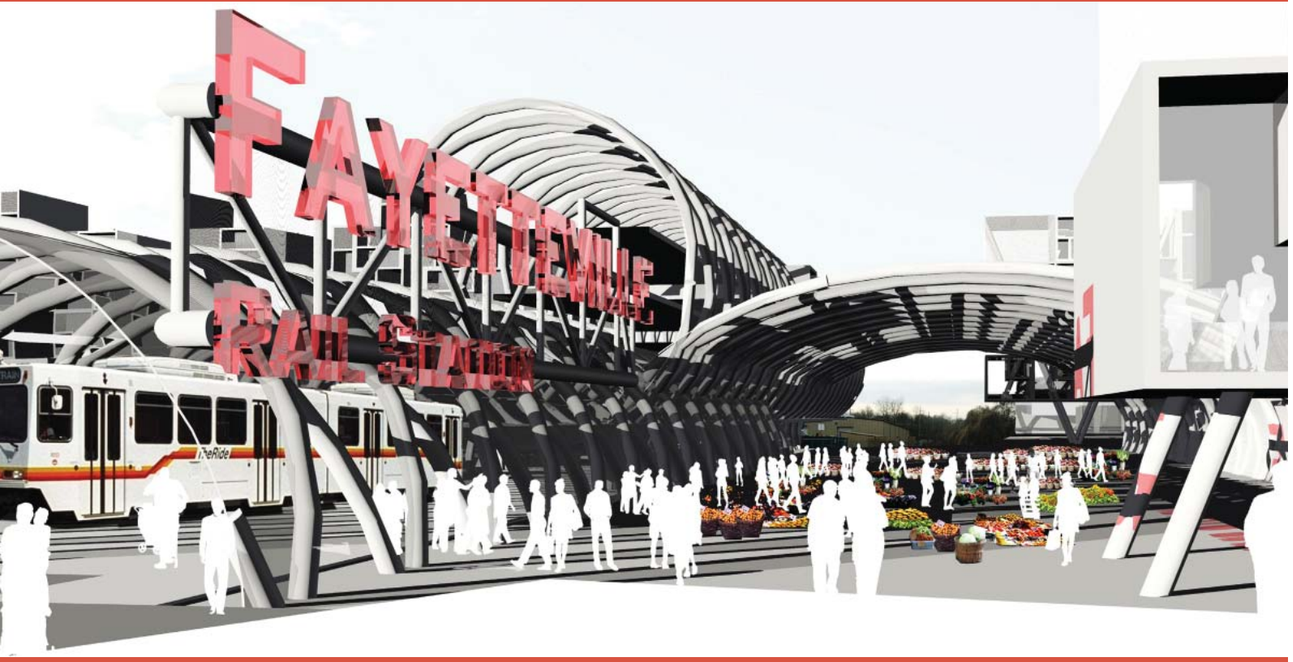
Practical implications

The usual design school among architecture, landscape and urban disciplines foresee a too old and static design teaching method. Solution in this field are infinite, each project should be explained with a proper drawing typology instead of stick to the common representation techniques. Artist always give examples of this skills while designers which are supposed to be artist too stick to an academic school hundred years old.

AS

See also

Go out and get in touch [80]



A design proposal for an urban park at the Dickson Street station.

References

Holmes, Joe, and James van Hemert. (2008). “Transit Oriented Development.”

Chen, Joyce, et al. “Transit-oriented Development.”

Calthorpe, Peter. The Next American Metropolis: Ecology, Community, and the American Dream. New York, New York: Princeton Architectural Press, 1993. Page 41-43.

Image- http://uacdc.uark.edu/news/?p=9

091
Transit oriented development

Hypothesis

Transit oriented development helps to maximize the use of public transportation.

Theoretical backup

Transit-oriented development (TOD) is a mixed-use residential or commercial area intended to maximize access to public transportation. Such neighborhoods often consist of a center with a public transit station, surrounded by high-density development with gradually lo er-density development spreading outward from the center. TODs or transit zones are typically located within a radius of one-half mile from a transit station, as this is generally considered a reasonable walking distance for pedestrians. However, geographic proximity alone does not make development transit oriented. On the contrary, TOD creates a vibrant community centered on transit access and reduced automobile dependence. As such, a pedestrian-friendly environment is critical to TOD, but is not essential to transit adjacent development.

Practical implications

Planners should consider three essential zoning strategies for TOD, known as the ABC’s of TOD zoning, Active pedestrian friendly streets, Building intensity and scale, and Careful transit integration.

Urban designer’s should follow some fundamental principe’s associated with TOD:

-Commercial, housing, parks, and civic uses shoul be placed within walking distance of transit stops.

-Pedestrian-friendly street should be designed which directly connect local destinations.

-Their should be mix of housing types and densities.

-Sensitive habitat, riparian zones, and high quality open space should be preserved.

-Public spaces should be the focus of building orientation and neighborhood activity.

-Infill and redevelopment should be encouraged along transit corridors within existing neighborhoods.

AD

See also

68. Regional and Local Networks
105. Relativity concerning auto-oriented development, public spaces and integrated society.



Duke de Choiseul in Piazza di San Pietro- Painting by Giovanni Paolo Pannini.

References

Alexander, C. (1977). A pattern language: towns, buildings, construction (Vol. 2). Oxford University Press, USA.

Image- http://www.artita.ru

092
Something roughly in the middle

" A public space without a middle is quite likely to stay empty" - Christopher Alexander

Hypoth-

Focal points in public squares give a strong steady pulse to the square drawing people in towards the centre.

Theoretical back-

The fact that people tend to take up positions from which they are protected, partly, and the way this fact tends to make the action grow around the edge of public space. if the space is a tiny one, there is no need for anything beyond the edge. But, if there is a resonable area in the middle, intended for public use, it will be wastes unless there are trees monuments, seats, fountains - where people can protect their backs, as easily the can around edges. This is the obvious and practical reason for setting something roughly in the middle.

Practical implica-

While planning public squares care should be taken that setting something roughly in the middle like a tree, a statue, fountain or a tower will attract people to the central area of the large public space, engages the cetral area with activities and it also gives a psycological sense of security to an individual. Designing a seating area around the element reinforces the social quality of the space.

AD

See also

12. Water square
81.Light pattern



OMA, CCTV-Headquarters, China.

Refer-

Glassrobots OY – www.glassrobots.fi / OGIS GmbH, www.glassglobal.com

Image- http://oma.eu/projects/2002/cctv-%E2%80%93-headquarters

093
Glass is green

Hypothesis

Glass not only characterizes the appearance of the building, but also can make a decisive contribution to the energy efficiency of the building.

Theoretical back-

The use of glass in public buildings and office complexes has steadily increased over the past few decades, and the trend looks set to continue. Glass is an inexpensive material which offers many superior properties in different applications. It is environmentally friendly and fully recyclable, an increasingly important consideration with the growing emphasis on life-span thinking.

Modern glass technology has done away with the need for any compromises in terms of energy economy. Different types of coating and insulating glass structures mean that modern glazing applications can be so designed that they meet even the most stringent thermal insulation requirements (which in glass structures are typically expressed in the K-value). Ideally, glass surfaces and glass walls will allow a suitable amount of warmth in, but keep the hottest sunshine out the building.

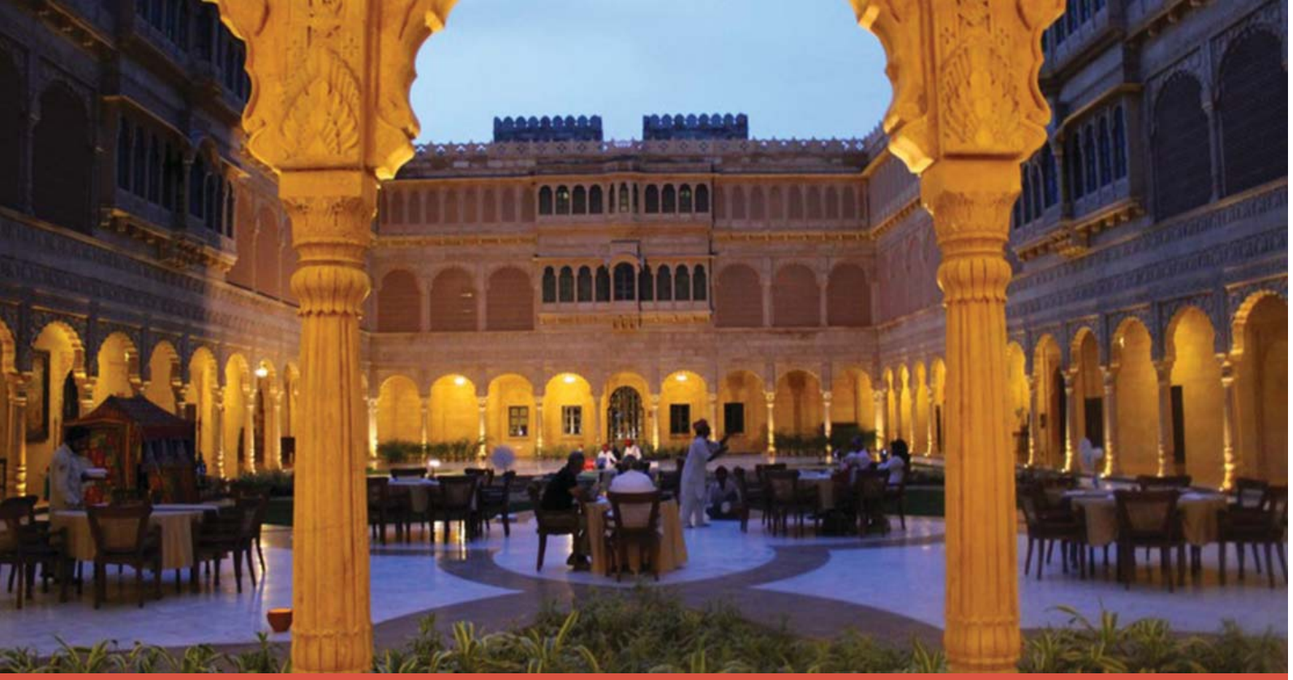
Practical implica-

Integral planning is required to efficiently leverage the energy and architectural potential of large-surface glazing in building skins. Architect's and facade installers must, where possible, already cooperate in the development stages of a project. Only this multi-disciplinary collaboration and the consideration of the given climatic conditions at the location can ensure an optimised interplay of summer-time solar protection, ventilation and heating and/or cooling technologies.

AD

See also

25.. Green vertical systems
114. Climate as design tool



Suryagarh fort hotel, Rajasthan, India

References

Reynolds, John S. Courtyards: aesthetic, social, and thermal delight. Wiley, 2001.

Alexander, C. (1977). A pattern language: towns, buildings, construction (Vol. 2). Oxford University Press, USA.

Image- http://cherishingspaces.blogspot.nl/2011_12_01_archive.html

094
Courtyard

Hypothesis

Courtyards provide aesthetic and thermal delight to the architecture of the space, but most importantly enhance the social character of that space.

Theoretical backup

Courtyards are special places that are outside yet almost inside, open to the sky, but by rooms. the courtyardis closely related to its surrounding rooms, serving them as both a conduit and filter of daylight, wind and rains. Courtyards are also used as social gathering places in many cultures.

Courtyards serve buildings of nearly every imaginable function. Residences are particularly likely to be designed around courtyards for both privacy and access to nature. Commercial activities also benefit. For example, restaurants offer shaded courtyards as escape from oppressive small offices and mid day heat.

Courtyards could be classified in many types such as public, private, passby or well defined according to its use.

Practical implications

Courtyards should be designed and planned by giving considerations to the indoor and out door flow of spaces. it should also have enough doors and easy connections which is linked not only to one activity. but also several activities within the building complex. Private courtyards should be enclosed from all sides where as public courtyards shoukd be open from one of the sides so as to ensure maximum access to the space defined.

AD

See also

32. Human scale neighbourhood



Union Square, New

Refer-

Lien, Barbara. The role of pavement in the perceived integration of plazas: an analysis of the paving designs of four Italian piazzas. Diss. WASHINGTON STATE UNIVERSITY, 2005.

Photograph by Emilio Guerra, http://www.flickr.com/photos

095
Role of pavements in public spaces

"The details... make the product. The connections, the connections, the connections. It will in the end be these details that give the product its life".
- Charles Eames
(Architect, designer, and filmmaker, quoted in Makovsky, 2005)

Hypothesis

The pavement design of a plaza or a public space has a strong influence on it's character

Theoretical backup

The pavement design of a plaza has a strong influence on that plaza's character, its coherence, and, ultimately, on its meaning. A well-designed pavement can offer humanscale pattern and interest, unite diverse architectural styles, heighten awareness of the volume of space, and relate the plaza to its context. Visual and mental connections between natural and designed elements across a range of scales can support the perception of a plaza as an integrated whole, rather than an assemblage of parts. That perception, in turn, can foster a more memorable and meaningful experience for a person observing and using the plaza.

Practical implications

While designing a pavement in public plaza's following points should be considered:

-To define a center or focal point for the plaza.

- To define or reinforce the plaza's edge.

- To relate the plaza's center to its edge and express the plaza's volume.

- To define and connect the plaza's zones of movement or function.

- Practicalities: to provide a hard, dry, non-slippery, load-bearing surface.

- Use: to indicate ownership or appropriate activity.

- Materials used should be in context to the climatic conditions and surrounding structures.

AD

See also

15. Life between buildings
55. Forever Promenade



River

Refer-

Prominski, M. (2012): River Space Design

Photograph by Uli, http://www.flickr.com/photos

096
Turning the tide

Hypothesis

Tidal variations at the sea or river can be used to enhance the spatial qualities of the urban waterfront

Theoretical backup

The tidal range is the vertical difference between the high tide and the succeeding low tide. The tidal range is not constant, but changes depending on the position of sun and moon.

Generally these tidal differences are avoided by means of dikes and barriers. Instaead of defending them, these variations can be incorporated to enhance different spatial qualities of an urban

Practical implications

When designing waterfronts, urban designers and architects should consider the influence of tidal variations in the plans by designing public spaces which can be used at different levels on different times of the day according to the tides, where as structures on the water edge could be made amphibious. For example; a stepped promonade or a sloped public recreational area where some part of it can also be used during high tide. These incorporations would help to re-establish the relation of the urban edge with water.

AD

See

107. Water in a city, threats or ben-



Dikes for recre-

Refer-

Revier, H. (2011). The Frisian dykes and their touristic and recreational offers

Meyer H., Nijhuis S., Bobbink I.(2010) Delta Urbanism

Image- http://www.discoverpikepa.com/contentimages/201_TaftonDike.jpg

097
Recreational defence

Hypoth-

Dike should not only be used for defence, but also for recreation.

Theoretical back-

Due to the climate change and the resulting predictions regarding the rising sea level, experts are considering alterations in the dike's structure in the future. When this situation occurs it would mean that large changes become necessary. This situation could then also be used to think about further functions of the dike. An integrated approach is discussed on many levels. This would mean that such reinforcement will not solely focus on the safety purpose of the dikes but also on further aspects like the development of touristic and recreational functions and facilities. Still the main purpose of the dikes, which is the prevention

Practical implica-

Urban designers and landscape architects should use dikes to spatially connect water to the inner land by adding recreational functions by designing bicycle paths, seating areas, ecological parks or public gathering spaces like amphithetre could also be planned. These intervention will help to re-connect the visual and social connection between the inner land and water.

AD

See also

39+117. Adaptive landscape of the dike
86.Soft Gate



Hafen city, Hamburg

References

Harms, H. (2008). Changes on the waterfront-transforming harbor areas.

Photograph by Andrew Wee, http://www.flickr.com/photos

098
Shrinking ports, Expanding cities.

Hypothesis

Transforming vaccant port areas helps in re-engaing the water related living enviornment of the city.

Theoretical backup

The decline of seaports and the appearance of derelict waterfronts became a topic for discussion, researchand urban planning, in the context of local and global restructuring, since the 1960s.The 'waterfront' represents that edge of the port city where water and land meet, where sea transport interchanges with land transport. But all that changed with the appearance of the container, the computer and the internet. The scale of ships and boxes increased enormously and the time required for information transmission from distant places shrunk to nearly zero, made possible by miniaturized chips in computers.This led into the developemnt of new port areas a bit far from the city. The change and the transformation of the vaccant waterfront contained a different processes and planning issue: Urban planning related to land use changes from former port uses to new urban uses. Urban design issues of enhancing the waterfront living conditions and its relation with the water. This tansformation helps in rejuvanating the realtion between the port and the city with 'water'.

Practical implications

Planners, Urban designers, landscape architects and engineers should go hand-in-hand during the transformations.

The development plan should be guided by several goals suchas: reuniting the city with the waterfronts and revitilizing the waterfront to create new living enviornments and neighbourhood's, public spaces, parks, plazas, walkways at the water edge to respect the historic character of the waterfront. Connectivity of the new harbour district to the city centre with attractive and efficient public transport should be strengthened. The old industrial sheds could be transformed for new usage of offices and commercial areas. The 'hardscape' of the exisiting port could also be transmuted into diffrent land forms by cutting and filling certain areas in order to create 'softscape' to re-engage the realtion of the water to the harbour district in new forms.

AD

See also

37.Potential of the ugly
57.A buffer that connects
08.Guerrilla beach





Oyster tecture, Space/Landscape Architec-

Refer-

Pilkey Jr, O. H., et al. "Algarve barrier islands: a noncoastal-plain system in Portugal." Journal of Coastal Research (1989): 239-261.

Image: http://www.scapestudio.com/projects/oyster-tecture

099
Soft resistance

Hypoth-

Man-made island, is a 'softer' way of resisting storm surge, other than dam or dikes.

Theoretical back-

Climate change and seav level rise are one of the major concerns for coastal protection all over the world. Protection against the sea side storm surge could be done in two different ways; hard protection (eg:sea walls and dams etc) or soft protection (eg: artificial islands and beach nourishment).

Hard protection is most widely used and has been the most common approach to shoreline erosion problems. However, there are many enviornmental disadvantages to seawalls, dams. Such structures can induce downdrift erosioin and increase beach reflectivity, eventually causing a chain reaction resulting in an entire coastline fronted by protected structures. Moreover coasts then need constant maintenance and beach aesthtics is lost.

Soft protection technique, particularly the artificial islands and beach replenishment, are attractive to coastal managers and they do not involve construction of costly structures and the results are more 'natural'. These techniques are also considered more effectiv in long term and have high positive impact on surrounding ecology.

Practical implica-

Location of the storm barrier island should be strategically positioned according to the sea/ river currents while, the type of island should be determined by the engineers according to the expected storm surge and global sea level rise.

Urban designers, landscape architects then have possibility to develop this island furthur with suitable interventions like recreational spaces and touristic developments.

Ecologists ecologists will alsohave to play an important role in maintaining the ecological quality of the islands by planning suitable conditions for exotic fish and birds. Oyster reefs could also be smartly used as an elements in; attenuating the waves as well as for cleaning millions of gallons of sea water thoriugh harnessing the biotic process of

AD

See also

59. Smart Defence,

100
Dump the trash



Land fill at Kanjurmarg, Mum-

Hypoth-

Land filling in form of dikes can be a sustainable way to defend water

Theoretical back-

Now-a-days it has become a concern to manage the large volume of solid wastes coming out every day from the urban areas as becuase of the space limitationsin crowded cities which are alrwady running out of space. further the methods of reusing such solid wastes have not been developed upto the mark which has given rise to the piling of solid refuses into a sustantial mass creation hygenic and enviornmental problems.

On the other side, in the low lying areas of Netherlands, dikes that are used to protect whole stretches of countryside are highly complex systems that involve great expertise and all the know-how regarding construction materials and procedures. Most of the materials used for dike construction, is used fom the adjacent river or sea bed which makes the overall construction costs to go high. Hence diffrent new composite materials are being tested for the constuction of dikes.

Hence, landfilling in form of dikes is an possible option for sustainable future, moreover it could be an innovtive solution for the problem of both; space for landfilling and its enviornmental impacts as well as a substitue to the expensive and traditional means and methods of dike construction.

Practical implica-

In order to land fill the dikes following measures should be taken:

- The structue should made composite with bolders and concrete to give it an addition strength.

- The mound should be sealed properly to prevent river/ sea water from seaping in.

- Slopes should be erosion controlled.

- Mounds should be reinforced at regular intervals with concrete supports in order to prevent displacement of the same dur to strong winds and river/ sea currents.

AD

See

129. Bring land to the wa-

Refer-

Ambuj, P. (2012). SUSTAINABLE LANDFILL PRACTICES AND APPROPRIATE DISPOSAL OF SOLID WASTE IN URBANISATION PROCESS. Journal of Environmental Research And Development Vol, 7(1A).

Image: http://www.antony-waste.com/landfilling.html



Food City, Dubai's Self-Sufficient Ecotopia could be one of such hospitable urban habitat example. GCLA, a green landscape architect firm, proposed a master plan for the city sector to turn it into an incredible off-the-grid, self-sufficient metropolis.

(Image and project information source last accessed on 04-04-2013 at http://inhabitat.com/?p=28860)

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101
Towards a hospitable urban habitat
(The city is part of nature)

"Urban Nature is more than a collection of individual features like wind, hills, rivers, and trees. It is the consequence of a complex interaction between the multiple purposes and activities of human beings and the natural processes that govern the movement of air, the erosion of the earth, the hydrologic cycle, and the birth and death of living organisms." (Anne Whiston Spirn, 1985).

Hypothesis

When cities are designed as part of nature, the forces of nature could be acknowledged and harnessed well as they represent a powerful resource for shaping a hospitable urban habitat.

Theoretical backup

Hospitable urban habitat can find its defining guidelines in an ecologically urbanized area which caters to interdisciplinary nature of cities. Built environment and natural environment interact with each other and are inseparable stratums. However today they are tackled only as distinct layers and cities as isolated hitches on the vast built fabric leaving man to tackle with the issues of energy conservation, waste disposal, flood control, and scarcity of clean water supply and others. Most designers consider 'nature' only while designing parks and new suburbs, that to more certainly for the aesthetic values it adds to the place and less attention is given to the environmental benefits that nature could provide. When nature scientists have collected enough scientific knowledge body about 'nature' in the city which could guide urban & landscape designers to create and integrated system of built & natural environment why not incorporate it to walk towards a hospitable urban habitat.

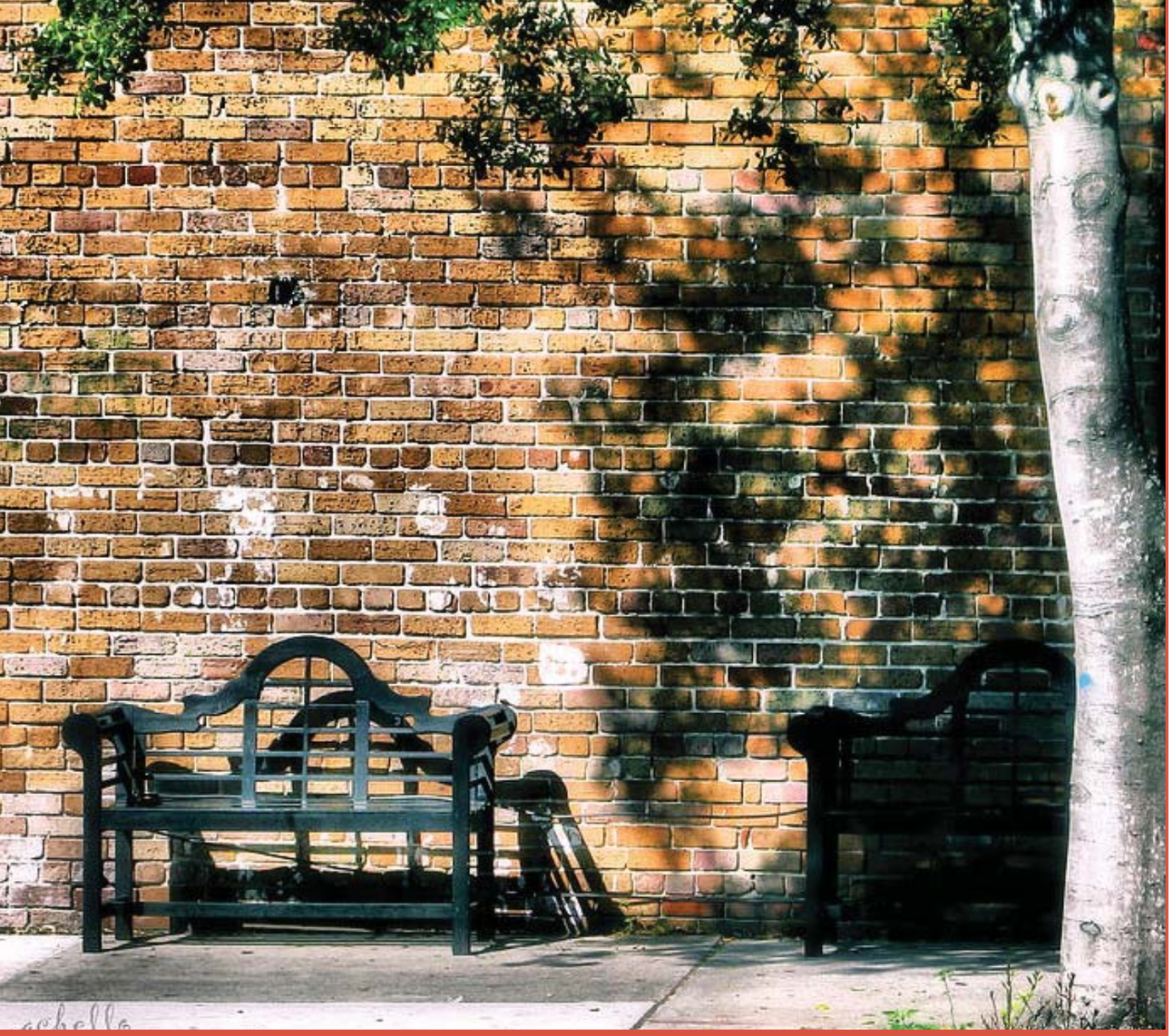
Practical implications

Storm drainage, sewage treatment, flood management and water supply if treated as related issues that require an integrated solution could yield a framework for city design that is dynamic and flexible and self-evolving. Thus an integrated work at local and regional scales could gain multiple benefits. Flood management in Netherlands (working with nature), sustainable designing, ecological urbanization, green infrastructure, urban agriculture, establishing regulations to improve environmental quality and others could be few of the long lists of other implications to create hospitable urban environment.

RG

See also

106 - An emerging discourse



(Image source - http://fineartamerica.com/featured/main-street-benches-terry-rogers.html)

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102
Great good place

"The right of free assembly is the most natural privilege of man." (Alexis de Tocqueville, 1963)

Hypothesis

People need the physical presence of other people and nature around, and those virtual spaces however vibrant; they cannot eliminate the need to have physical public places, which is 'great good places'. Moreover, these have the potential for feeding democratic functioning.

Theoretical backup

With television and car, with Xbox and PlayStation's, with social networking sites and others, the art of spending time around other people and with environment is dying. However for a healthy living people need access to open spaces in their neighborhoods to spend some extended hours to relax and refresh. Moreover these places act as neutral spaces and help nurture social bonds.

Oldenburg advocates the immense social value such places could bring in communities. He suggests that beer gardens, main streets, pubs, cafes, coffeehouses, post offices, and other 'great good places' are the heart of a community's social vitality and the foundation of a functioning democracy. As they promote social equality by leveling the status of different economic class groups, create habits of public association, and offer psychological support to all individuals from various communities.

Practical implications

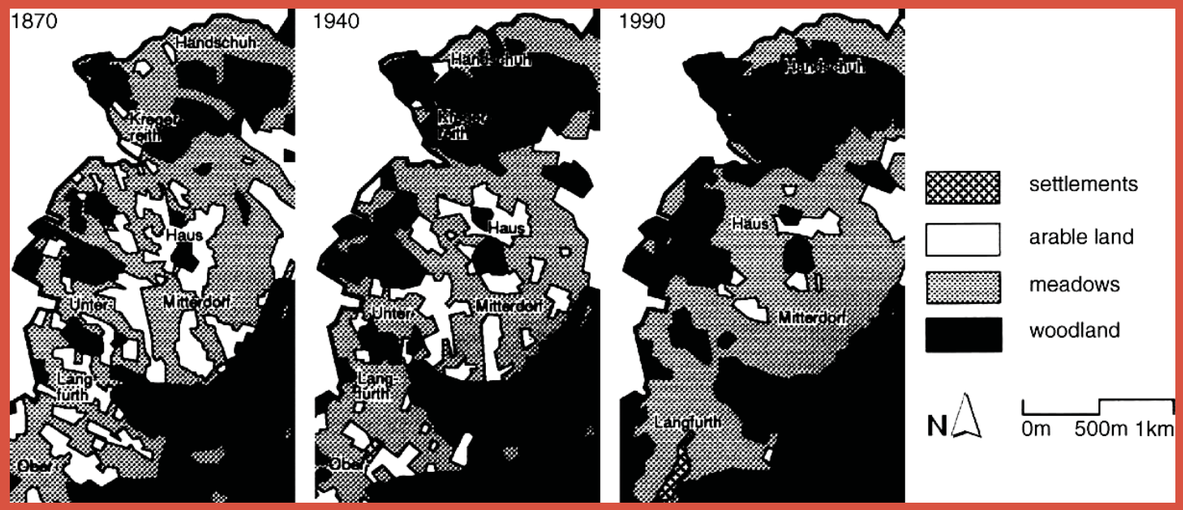
Communities need to ensure that great good places which are neither the home nor the workplace exist where anybody in the community is free to go and stay for as long as they want. These places need to be convenient, welcoming and such where money spending is not compelled. These places can be community centers, cafes or even a small scale intervention like a street bench. These places could be privately owned however the rules to use them need to be for public comfort.

RG

See also

005 - Take a seat
055 - Forever promenade

Temporal layer maps of the distribution of land use categories in a section of the Brotjacklriegel area (Bavarian Forest): 1870, 1940 and 1990.



(Image source - http://141.40.103.1/loek/mitarbeiter/boehmer/using-gis-to-analyse.pdf.)

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103
Diachronic cultural landscape information system

(Using GIS to analyze long term cultural landscape change)

Hypothesis

Establishing a large scale diachronic cultural landscape information system is a more detailed approach than the traditional topographical maps. This provides valuable results relevant for planning processes and nature conservation in changing landscapes.

Theoretical backup

The future manifestations of the landscape are not predictable. However exact knowledge of historical landscape conditions and of landscape change over time could facilitate and improve predictions about the current and future state of the landscape as well as enable scenarios for future conditions (Marcuccii, 2000).

The diachronic cultural landscape information system integrates land plot based data such as subsidies, land owner profiles, and soil quality information. This serves goals like compilation of data and characterization of landscape change over time in order to view the various eras of landscape use as a whole and to examine the causes of major shifts in landscape development. It helps explain landscape change resulting from natural and anthropogenic influences with the help of a quantitative approach.

Practical implications

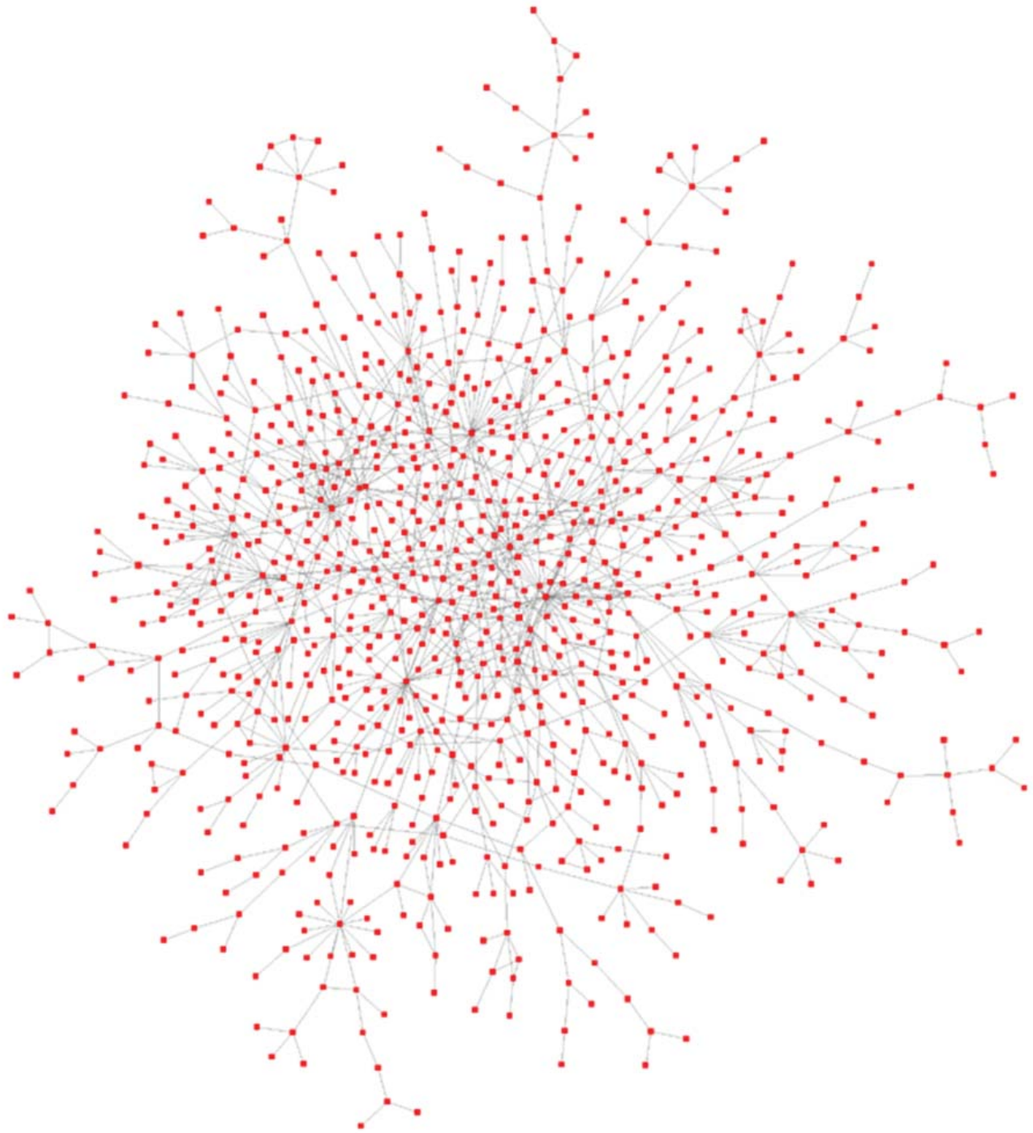
A GIS based model for research on cultural landscape change should provide a standardized procedure for the description and analysis of change which is applicable to any location. A detailed study of a small region could be used as a generalized base data for larger area. This should be the basis for historical spatial model for the larger extends of the nation.

Database models prepared for study helps support decision making in planning and nature conservation. One needs to pursuade collecting data for coming generation. Land register based diachronic GIS offer opportunities to quantify the surface areas of habitat types, and to assess how, when and why the sizes of different habitats have changed. The integration of a variety of data types into GIS often fails due to the incompatibility of data. Nevertheless the approach can be useful when using cadastral data along with remote sensing data. The evaluation of land – register maps along with high resolution aerial photographs permits differentiate types of forests or other areas of relevance improving accuracy of information database.

RG

See also

022 - Layered landscape



(Image source - http://www.orgnet.com/community.html)

104
Community networks for low income groups

Many agree that "there is no such thing as a poor community. Even neighborhoods without much money have substantial human resources. Often, however, the human resources are not appreciated or utilized, partly because people do not have information about each other and about what their neighborhood have to offer" (Resnick & King, 1990).

Hypothesis

Community networks if carefully planned and implemented, have the potential of curbing the fundamental issue of access to opportunities in terms of education & jobs for the low-income communities.

Theoretical backup

Large amount of money is spent yearly by United Nations, IMF, Worlds Banks and others to combat poverty, hunger and disease. However this solution towards the basic necessities seems only for the catered period and so further develops as a recurring cost. Instead if these communities are helped and engaged to develop their potentials via community networks, information and communication technologies it could bring tremendous social and economic benefits.

Most low income communities face a fundamental issue which is the lack of access to education and information. Community networks with computing facilities and with guidance to use these tools, ordinary people could use online information and educate themselves via distant education programs and build and secure job opportunities for basic sustenance of themselves and their family units.

Improving education outcomes are part of the broader agenda of creating alternative opportunities for these low income communities. Community networks facilitate education; enables exchange of ideas, information and knowledge, create awareness of community opportunities and potentials, and encourage interaction of community.

Practical implications

Certain key centers could be provided with computing facilities and free internet for use by general public. These could be in public libraries, education institutes (schools and universities), and public institutes (hospitals and clinics). Certain basic information and services should be made available and accessible publicly via the internet for basic awareness.

Enriches the social bonds and possibility of every actor in the network, includes democratic values, is a practical bottom-up solution and encourages virtual spaces. As humans are always a part of several virtual spaces, display screen was created between Indonesia and Rotterdam for people to connect.

RG

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An image of the pre-construction, auto-oriented street



The street post-construction has been designed to calm traffic and support higher levels of pedestrians and cyclists

(Image source - Anonymous)



The Porch in Philadelphia before and after rightsizing. *(Image source - http://www.pps.org/wp-content/uploads/2013/02/rightsizing1.jpg)*

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105
Relativity concerning auto-oriented development, public spaces and integrated society

Hypothesis

A shift from automobile oriented development to new models of transit and bicycles for urban development provide opportunities to create a more integrated socially healthy society.

Theoretical backup

Across nations automobile users are tagged with 'high income group statuses'. This reinforces social division in society. Moreover, streets built just for cars undermine the vitality of public life and public spaces. It is studied and found that people travelling in cars interact less with people outside the cars and also with the environment around.

City planners must look at new models of transit as an opportunity to create a society where people of all income levels could experience interaction, and persuade car users to take other modes of mobility to connect to natural environment for health benefits.

Practical implications

Public squares, sidewalks, public transit modes and community centers are the commons that are used by all income groups and can act to be an interface facility space with equal possibilities for different groups of people interaction. To create a socially equal society, these spatial settings could be most dynamic.

Moreover for the low income groups, as they cannot afford recreational parks and other tourist centers, streets are the only public spaces that they enjoy. Rightsizing the streets as a means of improving streets for all users and creating a sense of place, comfortable sidewalks and crossable streets, plantation along so and mixed development help create an integrated socially healthy society.

RG

See also

083 - Slow & fast
102 - Great good place

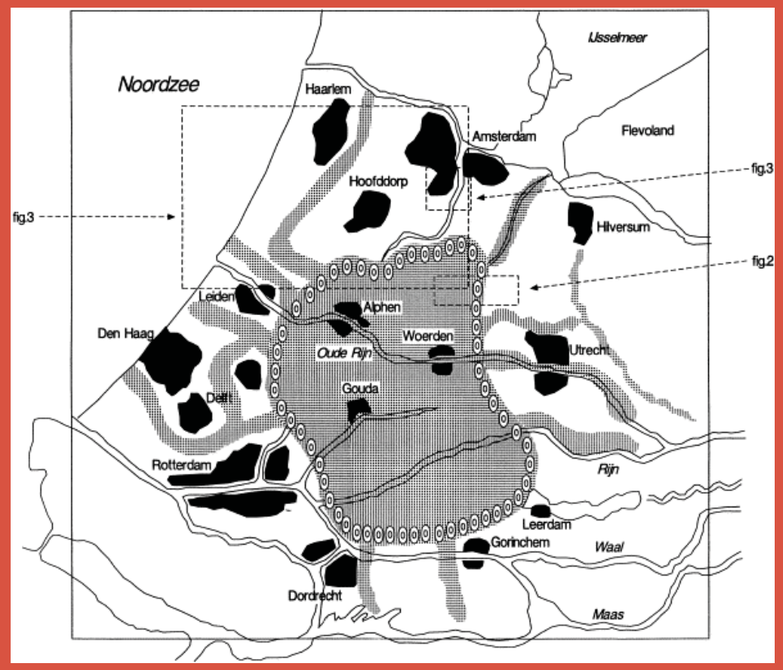

Fig. 1. A chain of wetlands between Randstad and Green Heart (After Harrison and Harrison, 1997). The frames show the position of Fig. 2, Fig. 3 and Fig. 4.

(Image source - http://www.sciencedirect.com/science/article/pii/S0169204600000359)

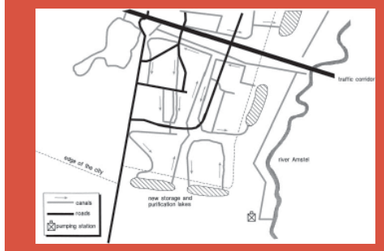

Fig. 3. The Amstelveen waters scheme with storage functions in the urban fringe (Tjallingii, et al., 1996).

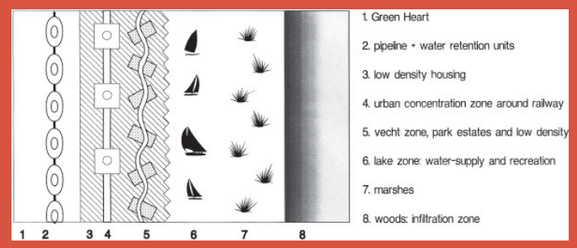

Fig. 2. The Chaining Waters's principle (Zandvoort - IBN-DLO, 1995).

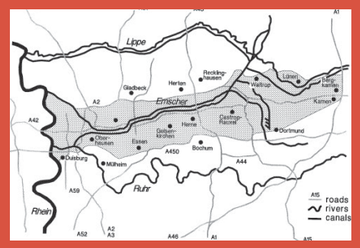

Fig. 4. The Ruhr area with the river Emscher (IBA Emscherpark, 1992b).

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106
An emerging discourse (Nature as a process)

The concepts of urban or landscape design & planning develop in complex eco systems which continuously shape the 'concepts of design' while are constantly altering themselves.

Hypothesis

Land use planning in more or less urbanized regions should start with the basic natural processes that create conditions both for wildlife and for human activities.

Theoretical backup

Ecology focuses on natural resources and their processes. If carefully identified, with scientific base & technological advancements, land or water management decisions could be designed as a part of these processes in the larger ecological system. Further, every landscape has its own characteristics which if integrated into economic development strategies could spare extreme disturbances. With 'Nature: as a process' approach multiple aspects like ecology, technology, social and economic developments, projects can be combined to create prospects for wildlife habitat and spatially valuable environment for human activities.

Practical implications

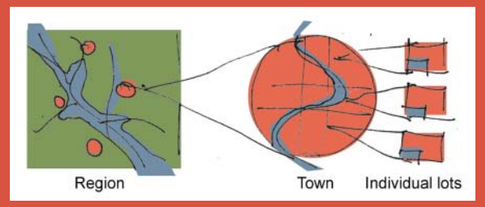
This is already implied at multiple locations however with less awareness. One of the examples is flood control at Yonging River Park Project in China where instead of conventional engineering methods for flood control native grasses replaced a concrete defense measure which was appreciated both by locals and tourists (park – like river's edge). The Dutch approach to Deltas, 'Work with Nature' can also be one of the illustrations under this hypothesis.

'Chaining Waters' an entry to the international competition on "designing the inner fringes of Green Heart Metropolis" used water as the starting point of a combined approach to urbanization and landscape planning. Moving the drinking water production from the outer fringe to the chain of lakes in the inner fringe created conditions for solving the outer fringe's environmental problems. Thus, Chaining Water illustrates how a process oriented approach creates structural conditions for the quality of the edge of the city and for a green development of the countryside.

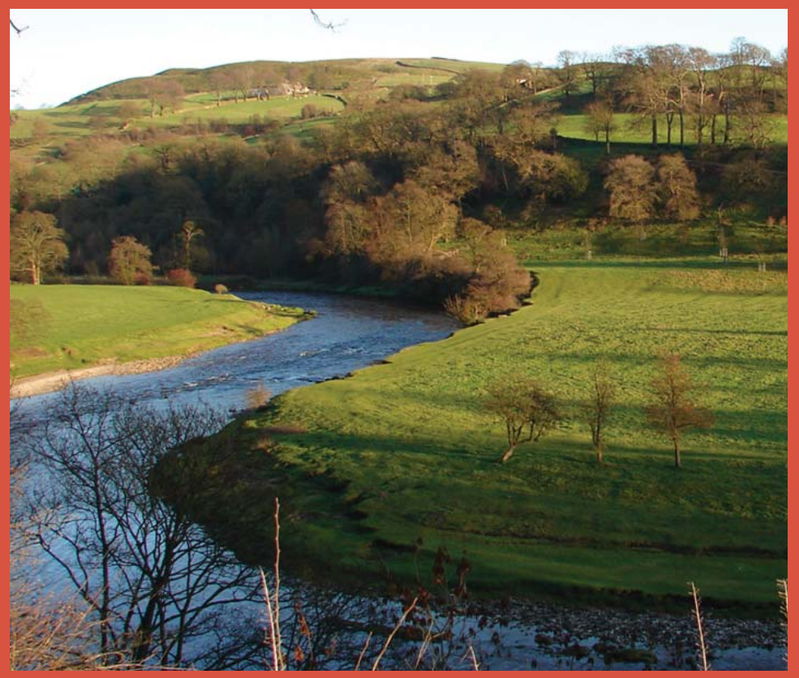
RG

See also

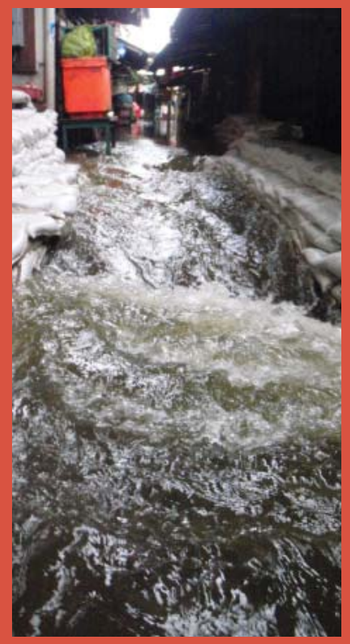
101 - Towards a hospitable urban habitat



Interrelationship of water ecosystems on a regional, urban and local scale (Januchta-Szostak 2011c)



(Image source - Anonymous)



(Image source - Krashkraft Vincent, Getty images)

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107
Water in a city, from threats to benefits

Hypothesis

While crafting the synergic city a holistic approach towards 'water ecosystem' and 'spatial management' if adopted could possibly prevent natural catastrophe.

Theoretical backup

How can river valleys be managed in a way that is both attractive for people and viable for flora and fauna? How can heavy periods of rain be managed to reduce the scale of flood damage? Can rainwater be useful and aesthetic? Well can a catastrophe be prevented if river valleys are managed smartly!

As environmental quality and flood safety depends not only on the way river valleys are shaped but also on rainwater management in areas far away from river basins, a holistic approach that suggests co-existence with water and sustainable water management across extended basins only can create a synergic effect in multifunctional urban spatial management. This is because the hydrographic systems extend spatially to a broader range from drinking water source on individual plots to rivers as ecological corridors on a trans-regional scale.

Practical implications

City planning can be integrally connected with water management across entire drainage basins. Green streets concept could be used for water retention and purification. Water and greenery are the most desired neighborhoods for residence which could be explored in the form of attractive rain gardens, housing estate ponds or water playgrounds. The use of water to exhibit sites with social and landscape importance could increase the sites' prestige, underlining their identity and uniqueness. . Further diverse forms of water elements in urban and architectural composition to improve the clarity of spatial order and coherence of landscape form, function and content can be many design opportunities.

Rotterdam Watershed 2035, strategy combined complex flood protection with rebranding of the city's identity and attractiveness based on its social, economic and landscape water features.

RG

See also

056 - Visible water
066 - From defence to retention



Play with water



floating homes



water vital resource



floating towns / cities

108
In the terrain of water

"Addressing water as a design opportunity and not only an environmental challenge"

Hypothesis

See adjoining water not only as a serving resource but as a design element to create settlements in the terrain of water.

Theoretical backup

In the oceans, the glaciers, the ice caps, the rivers or under the ground, water is everywhere. 70% of the surface of Earth is covered with water. In the changing times, with the global warming causing sea level to rise the approach in Dutch deltas has changed from 'dyke as safe barriers' to 'work with nature' and 'room for the river' for water management solutions. So has under the constant threats of flooding come the design innovation of amphibious housing. Does this seems like a hint or could this be an opportunity to create a new vocabulary of place, history and ecology on the terrain of water, with water as a design element, as a starting point?

Practical implications

Amphibious housing is one of the new advances for the delta regions of the world. Floating homes in the event of flood simply rise up with the raised water levels. In addition to floating homes, Dura Vermeer has been working with other companies to create floating greenhouses that create areas for water storage as well as additional green space that do not utilize land resources. These green houses are built upon polystyrene foam that has the same properties as reinforced concrete while remaining buoyant.

Rebecca Lee proposed an ambitious housing concept - Amphibious Housing, for a town in England, Thamesmead, near North Sea.

RG

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(Last accessed on 14-04-2013 at http://www.design.upenn.edu/calendar/terrain-water, http://amphibioushomes.weebly.com/what-exactly-is-an-amphibious-house.html, http://www.ecofriend.com/amphibious-housing-ambitious-housing-design-flood-prone-areas.html)



Relative vulnerability of coastal deltas as shown by the population potentially displaced by current sea-level trends to 2050 (Extreme = >1 million people displaced; High = 1 million to 50,000; Medium = 50,000 to 5,000). *Source: IPCC (2007) (PDF)*





(Image source - google earth)

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Estuaries, Climate Ready, Synthesis of Adaptation Options for Coastal Areas. US Environmental Protection, Agency Office of Air and Radiation, Office of Water. EPA 430-F-08-024. Washington, DC, December 2008.

Further readings - (Last accessed on 20-04-2013 at http://www.epa.gov/climatechange/impacts-adaptation/international.html)

109
Synthesis of adaptation options for coastal areas

Hypothesis

The nation's diverse coastal systems possess varied abilities, so they possess varied adaptive capacities to adjust to the changing climate.

Theoretical backup

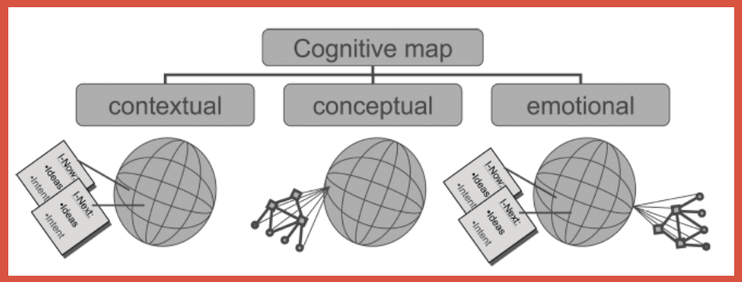
All deltas are expected to be affected by the climate change. However the susceptibility of one coastal system differs from the other. The character, rate and magnitude of climate change stressors vary regionally, so also the physical features of each coast. The sea level rise will impact the bedrock coasts of New England and Oregon differently than the sandy barrier island shorelines of North Carolina. The ability of these systems to adjust to climate change stressor, to moderate the potential damages, take advantages of opportunities or cope with the consequences , that is the 'adaptive capacity' would vary.

Practical implications

The adaptation strategies undertaken involve physical changes, technological advancements, or simply management decisions that reflect awareness of climate change impacts on the region. While comparing Dutch South West Deltas to Ganges Brahmaputra Deltas, these are found to be influenced by the existing landscape culture and religious culture respectively.

What variables are generic? What variables are specific? Some adaptation options may apply directly or indirectly to multiple management goals. However, while reflecting successful design implications from one coast to that on to the other, care must be taken towards maintaining water quality and preserving habitat for atleast the vulnerable species.

RG



Cognitive maps are abstract metric spaces that reflect semantics of associated symbolic representations. Different kinds of cognitive maps may represent different aspects of semantics and/or map different kinds of representations.

(Image source last accessed on 20-05-2013 at http://intraspec.ca/cogmap/10.1.1.125.8012[1].pdf)

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110
Cognitive Connections

Hypothesis

The use of visual & conceptual connectivity offers hope for harnessing human creative energy in the interest of ecosystem integrity.

Theoretical backup

"The new ecology starts with this fundamental assertion: that the unit of survival is not the individual or the species, but is the organism-and-its environment... "Although a dominant species, humans are integral components of ecosystem and today we are aware of the "cause and effect relationship between our actions and fragile environment in which we live". Humans have a capacity of abstract understanding. We comprehend our place in the local and global eco-systems and acknowledge the far flung consequences of our actions. At present cognitive connections are found only at the planning stage through collaborative and participatory design procedures. Little direct interaction between humans and river ecosystems is observed. There is a need to draw cognitive connections between ecosystems and the daily lives of human residents.

Practical implications

Connectivity of all kinds includes a connection to humans and from humans to the system as a whole. Thus, the goal is to reverse the historical pattern of asserting human dominance over the river ecosystems by making people aware of the complexity and interdependence of all parts of those systems. Three such types are,

1. River restoration plans that incorporate pedagogical elements into the landscape.

2. Water museums that provide virtual or conceptual tours of the riverfront could emphasize the human impact on the riverbanks themselves.

3. Works of art that facilitate and call attention to natural processes.

Thus, ecologically designed urban landscapes should communicate cultural 'cues' for sustainable behavior. These should be implemented in partnership with ecological education efforts. If done so, the cultural meanings and ecological place values created over time will become fundamentally local.

RG



A City Farm in urban Chicago.
Source: http://www.grit.com/Garden/Farming-in-the-City.aspx

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111
Farming the city

Hypothesis

The urban area could be a food productive landscape in order to contribute to food security.

Theoretical backup

According to Steel (2009) feeding cities has a great social and physical impact on us and on the planet than anything else we do as she stats that 'Food shapes cities, and through them, it moulds us – along with the countryside that feeds us'. However, there is a very big gap between where our food comes from and where it is eaten, between origin and plate, between city and countryside. The journey from the fields to our plates is long, complex and global (Rooden, 2012).

Practical implications

Designing a city considering the food systems and its effects on the shape of the space, as Steel (2009) defines in her 'sitopic' city, would lead to a city with strong links to the local hinterland through a food network, with active markets, local shops, and a strong sense of food identity. There would be neighbourhood allotments, its houses would have large kitchens and the school would educate kids about food, so children would learn to grow and cook food. Food networks would be use to the city plan, although there would be no limit to the size of the city as long as its emphasis on food would ensure that to be conceived as an integral part of the local organic cycle.

GC

See also

Urban agriculture;



Ruoergai Wetland Reserve, China

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112
Reachable nature

" The city needs to be recognized as part of nature and be designed accordingly. [...] The nature in the city must be cultivated like a garden, rather than ignored or subdued" (SPIRN, 1995)

Hypothesis

It is important the relationship between human kind and nature and it is essential that the urban relate to the green.

Theoretical backup

The separation between green and city is far from being accepted nowadays. As we now know, there is not only two distinguish possibilities: city and green. The green is part of the cities as well, and it has to be considered as an important structure of it.

Urban areas should consider the green structures inside its fabric, but also the green belts or buffer green areas around them could be planned to be reachable by citizens. Considering the necessary contact of the human being with the green and the idea of that as more aware of the wildlife better the people will be responsible and respectful towards nature.

In summary, the green structure within the urban fabric and around it sould be consider as important elemnet to connect the mankind to nature in a more sustainable way.

Practical implications

Green areas, especially within the cities, should be open and accessible to the citizens. Nature near urban areas should be acessible in order to be protect by the residents. Therefore is important to consider the green structures in the planning and design of the cities.

Through the shape of the space it is possible to connect the residents to the green areas, bringing qualities to the urban areas while providing a different relation with the space, a new identity. That it is already a reality in many places, however in several others, especially in developing countries, the nature within the cities is still neglected and the access to it still restricted.

GC

See also

Green without border



The image above shows a painter and resident of Morro Santa Marta in Rio de Janeiro painting the facades of the main square of the slum. The facades of the central square where painted by the community in the Dutch design O Morro (lit: the Hill). Just by making this huge artwork spanning over 34 houses the collective self-esteem of the community increased and now the residents are proud and more committed to the community.

Source: http://www.blogdapacificacao.com.br/santa-marta/pintor-do-santa-marta-retrata-a-comunidade-em-quadros

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113
Collective self-esteem

Hypothesis

Improved social inclusion and less segregated urban space can be achieved through a collective sense of ownership of the space.

Theoretical backup

According to Souza (2003), social and residential segregation is essentially an urban phenomenon of large cities. The less residential segregation is greater the chances of interaction between different social groups and less prejudice and intolerance. It is possible to decrease prejudice against some segregated spaces in cities such as slums, by increasing the collective self-esteem, as there is a relationship between people's self-esteem and how they feel about groups they are a part of.

The collective self-esteem of a community can be increased through the provision of better living conditions. Investments in social and technical infrastructure, from the scale of the house to the scale of the neighborhood, would stimulate the residents to grow as a stronger community.

The feeling of collective ownership of the space brings together the sense of conservation and protection of the space. Therefore, the urban space can play a decisive hole on defining or transforming a segregated area.

Practical implications

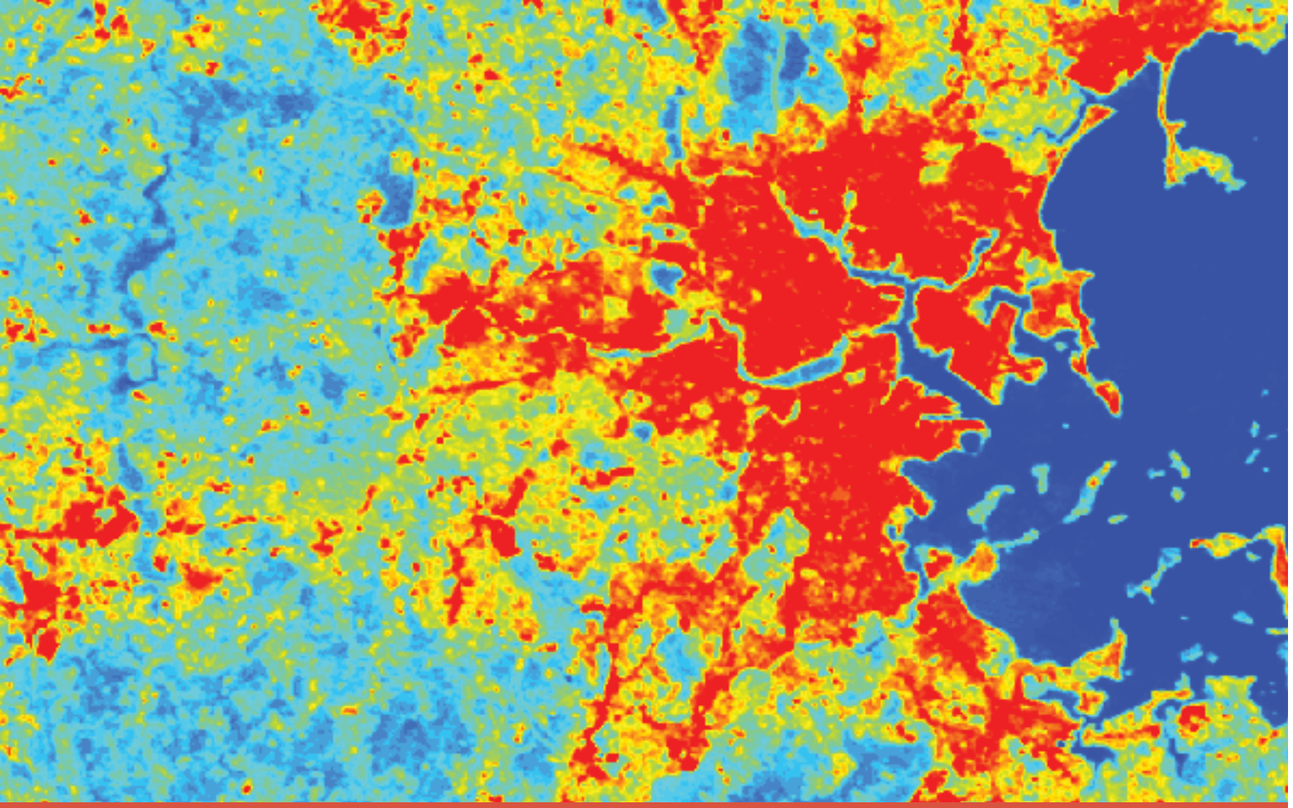
One example of that is the Kampung Kali Cho-De in Indonesia where the village settlement was built on refuse dumps and open sewer, and despite countless efforts to be demolish, an community leader, former Catholic priest, fought with the community to improve the conditions of the settlement, pursuing a cooperative arrangement where the community had to work together to build the houses. Another example of practical implications of this concept is what happened to the Morro Santa Marta, a favela in Rio de Janeiro that saw the change of the community mind set with the painting of the houses facades.

Ways of making such improvements on those types of communities could happen by adding social infrastructure such as recreational areas, community and sports centres, and also with the improvement on urban infrastructure: sewer and fresh water systems, aesthetics and structural housing renovations, and so on.

GC

See also

User Adaption; Fiesta Galore; Human scale neighborhood



Boston, Massachusetts. Surface temperature, 2009. Source : Camilo Pérez Arrau, 2010

References

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114
Climate as a design tool

Hypothesis

The quality of life in cities could be improved if the form of the city and the built environment is appropriate to its climatic context.

Theoretical backup

The aim of the Bioclimatic Architecture project is to provide a built environment with physical comfort, pleasant and healthy, adapted to the local climate. That minimizes the electrical power consumption and also leads to minimal pollution. (Corbella and Yannas, 2003)

The knowledge of the thermal properties of building materials and the understanding of the basic laws of heat transfer can predict what will be the response of a building to changes in external environment and, consequently, it is possible to make decisions considering a particular climate in order to facilitate a situation of thermal comfort to its inhabitants.

This concept can also be translated to the city scale, by taking in consideration to provide spaces that create a microclimate within the urban areas in order to minimize the urban heat island effect, that is to say that it is important to take into account the significant increase of temperatures inside urban areas.

Practical implications

Building designs that take into account climate and environmental conditions to help achieve optimal thermal comfort inside. It deals with design and archi-tectural elements, avoiding complete dependence on mechanical systems, which are regarded as support. A good example of this is using natural ventilation or mixed mode ventilation.

In the city scale, design choices and solutions can help to minimize the urban heat island and create microclimates with the use of trees in the streets, and spaces with shelter to provide shade, also taking into account the shape and materialization of the urban fabric, regarding colors, airflow, paving, etc.

GC

See also

Pattern; Pattern; Pattern.



Favela (slum) in Rio de Janeiro, Brazil.
Source: http://onlineathens.com/national-news/2013-01-22/rio-de-janeiros-favelas-find-place-city-maps

115
Lively favela

"The slums and other informal settlements offer to a number of population groups some attractiveness for which no city planner, until today, could found equivalent. This is not to say that we must preserve the unhealthy slums of big cities but simply that we need to find ways in which cities can meet the new aspirations for all sections of the population" (Duhl, 1963)

Hypothesis

Despite the problems, informal settlements have a special way of planning and shaping the urban space.

Theoretical backup

Some informal and organic self-organizations, such as the Favelas in Brazil and slums around the world, had become lively urban spaces and engaged communities that one could translate that knowledge to the designing of the formal city. Some of the slums that grew out of a government-housing program are today a safe and vibrant neighborhood and a viable counter model to gated condominiums.

"We have to replace the Modernist paradigm with new models of sustainable urban growth. Our approach to the informal city—its new forms of urbanism and potential models for sustainable lifestyles—will play a key role in this process. Mediating between micro-environments and macro-scale systems, urban design can learn from the favelas as test-sites for urban renewal." (Angélil and Hehl, 2011)

Practical implications

Understanding how politicians, architects and urban planners can work together with local stakeholders to improve living conditions in such areas, however without upsetting their social structures. And at the same time learning from these examples how those social structures can define a new form of urbanism with more engaged stakeholders and a vibrant use of common areas.

The physical quality of the built environment in those circumstances is less important than the social quality. Therefore, the idea of a centralized approach to design and construction often reflected by the "professional approach" can be unnatural and unsatisfying.

GC

See also

Collective self-esteem; User adaption; Spontaneous city .

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n 2011, a Dutch ship pumps material onto The Netherlands' so-called Sand Engine project, a 28 million-cubic-yard heap of sand along the coast of Holland that will be rearranged by ocean currents and fortify a 12-mile buffer to protect the coastline. (Photo courtesy of Rijkswaterstaat/Joop van Houdt at http://blog.geogarage.com/2013/03/to-control-floods-dutch-turn-to-nature.html)

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116
Dynamic Coast

Hypothesis

Coastal water management should use the dynamics of nature to structure coastal areas.

Theoretical backup

In order to keep a safety life behind the coastlines we need an efficient coastal and marine management to deal with climate change, rising sea levels, vulnerable dunes and the pressure that put on coastlines.

In the Netherlands the advance of the sea is stopped by depositing extra sand in the foreshore and letting nature do its work. A sustainable coastal engineering with understanding of nature dynamics could provide a softer approach towards water safety, instead of hard built structures.

Practical implications

Using sedimentation and erosion on our favour for controlling the sea advance. As in the Dutch example of putting sand in specific areas that sea currents would move them and spread through the coastline is one way of working with the nature dynamics.

"Building with Nature is a concept that perfectly fits that approach. Where possible we strive to reach our objectives by making use of natural processes, creating integrated solutions that are flexible, that help to safeguard our economy and boost our ecology, that are both cost effective and sustainable, and that make our country safer and more attractive as a place to live." (De Vriend and Van Koningsveld, 2012)

GC

See also

Bring land to the water.



The Macquarie Marshes Nature Reserve, Australia

References

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118
Paradise ownership

Hypothesis

Ecotourism activities could allow people to appreciate and protect nature in a more consciously way.

Theoretical backup

The feeling of ownership allows us to take more care of the things we own. Ownership not only related to natural heritage but also to cultural and social local inheritance. The idea of a sustainable or ecological tourism is to promote a way of bringing people closer to nature and at the same time making the users responsible for it as owners.

The feeling of belonging and the respect developed to the place comes together with a sense of collective responsibility. And that reflects on the way the society will act towards the space, and footprint they will leave behind.

Practical implications

Instead of promoting mass tourism resorts or excluding people from the contact with nature reserves, investing in ecological tourism can protect and bring profit to the site in a sustainable way.

Through activities of adventure, hiking, sports, contemplation, sailing, etc. an area can be protect by the conscious use of it and the collective responsibility that was given to the users, the feeling of ownership and need to take care of it.

GC

See also

Collective selft-esteem; Reachable nature.



Ouddorp, Zeeland Nl. Photo by Antonio Sanna

References

Marshall, R. (2001) *Waterfronts in Post-industrial Cities*, London and New York: Spon Press.

119
Climb the dyke and enjoy the ocean!

Hypothesis

People need good reasons to reach the coast, therefore better links between land and coast through the dykes and dunes could be made.

Theoretical backup

Dykes and dunes make spatial and visual barriers between the seafront and the users. However the dunes as part of the natural landscape are better incorporated to this scenario while dykes still remain as a physical and unattractive wall.

Adding program to the seafront can reinforce the reason people would cross the dyke to reach the beach, since these water protection walls compromise the visual stimulation of the ocean.

Therefore, a seafront with diverse services and activities would attract the users and add new ideas to people's imaginary of the beach.

Practical implications

A program like the one in Scheveningen can bring a lot of vivacity to the area. It can also provide the beach of activities in most time of the year and not exclusively on summer. The creation of boulevards, cycle lanes and recreational infrastructure should provide an important public space.

It is important, however, when designing such structures, to consider the characteristics of the beach and the urban areas related to it. The connection with existing structures and landscape is fundamental. The dyke becomes as connection link between land and sea and not a barrier anymore.

GC

See also

Look beyond, From fear to enchantment.



Rockanje Beach, NL. Photo by Antonio Sanna

References

Hooimeijer F., Meyer H., Nienhuis A. (2005), Atlas of Dutch Water-Cit×ies, Amsterdam

120
From Fear to Enchantment

"Urban development close to the sea was not only considered to be dangerous and unsafe, but also unhealthy."
(Hooimeijer, Meyer and Nienhuis, 2005)

Hypothesis

The Dutch coastline has always been a matter of fear and feeling of unsafely. A change of mind set lead to a shift in the cultural way of perceiving the sea.

Theoretical backup

Even though the Dutch were always very good in everything related to the water, such as: management, sports, navigation, port, and so on. Some villages however close to the coast have developed as polder cities instead of having an economy oriented to the sea.

Nowadays the attitude of working with water and not fighting it is currently driving those urban developments to look towards the sea and benefit from it.

Practical implications

With the direct relationship of the urban area and the sea, some villages shift from exclusive farm villages to beach touristic resorts.

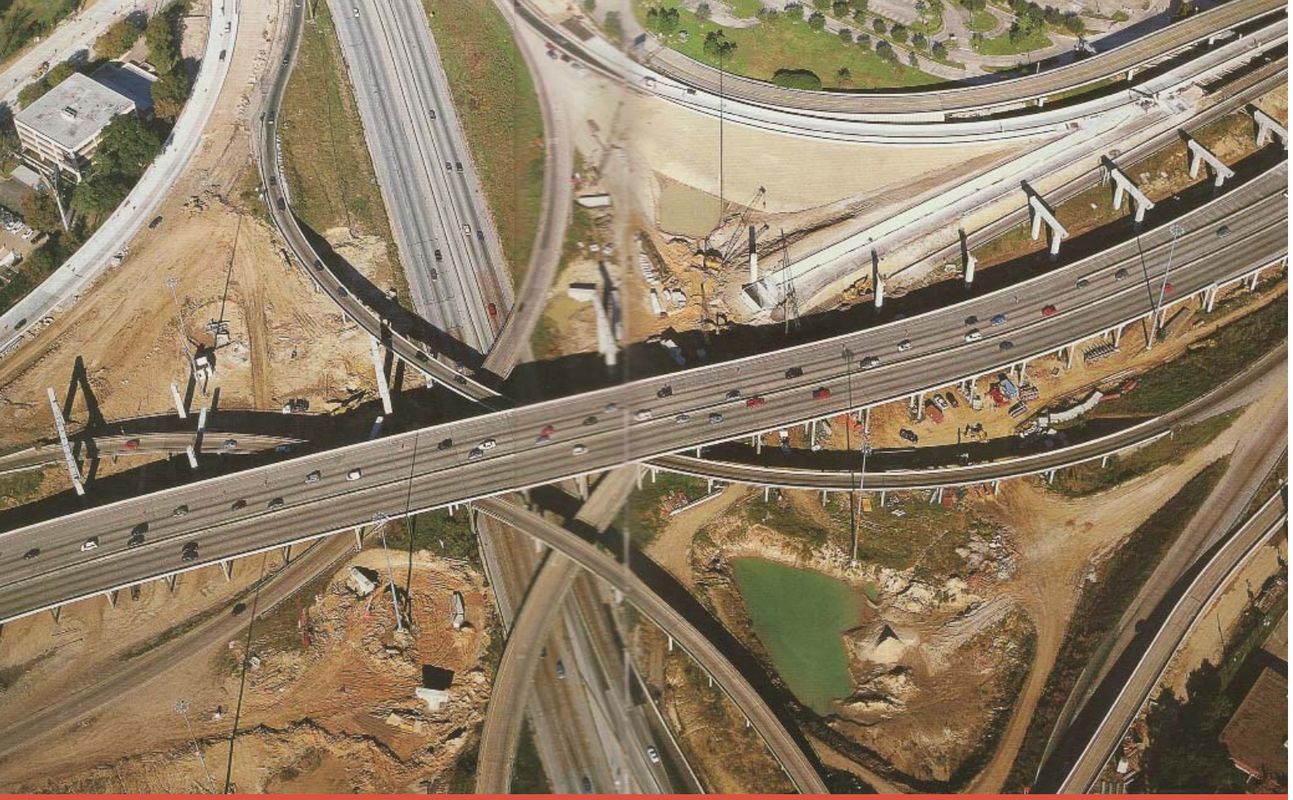
Economic development of those small towns can be achieved by the new possibilities the connection and the use of the seafront can bring.

The example of the beach village of Ouddorp in Zeeland shows how the development of it as a touristic and recreational beach resort has changed the urbanization of the area with the urban growth spread out and closer to the seafront, as well as the increase of activities related to the beach.

GC

See also

Climb the dyke and enjoy the ocean!



Drosscape between infrastructure

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LERUP, Lars, 'Stim & dross: Rethinking the metropolis', Assemblage, n°24 (1994), pp. 82-101

121
Drosscape

Hypothesis

No city without residual space

Theoretical backup

Taking a closer look to the urban environment, one can discover all types of dross in the landscape, from the garbish ban on the streets to the massive open spaces along highways or bufferzones between industrial and residential areas. These residual spaces appear at several scales and became part of our landscape.
Therefore we should accept that cities produce waste, like living organisms. Alan Berger advices us to accept the residual space that comes as a direct consequence of urban living, and embrace it as a possibility for innovative design, calling these places 'drosscape'.

"To expect a planned city to function without waste, which represents the in situ or exported excess not only in its growth but of its maintenance, is as naïve as expecting an animal to thrive in a sensory deprivation tank. The challenge for designers is thus not to achieve drossless urbanization, but to integrate inevitable dross into more flexible aesthetic and design strategies."

Practical implications

In practice, these so called residual spaces are considered to be flaws as if they must be 'fixed'. Because of our need for beautyfication, buffers have been transformed into meaningless parks whereas a functional wasteland seems to make more sense. Therefore, when drosscape appears in the landscape as an exception rather than a rule, spaces of dross can provide a vibrant site for people to experiment and to escape, for nature to reclaim land and for other unknown organisms to benefit from the city's waste. The cities margin must be a place where new developments can pop up and thereby we should provide these drosscape with for example, basic infrastructure.

MN

See also

063 Residual spaces; 135 Brownfield transformation; 053 Fiesta Galore.



Tate Modern, London - indoor public square

References

BARRETT, J. (2011) *Museums and the Public Sphere, West Sussex*: Wiley-Blackwell.

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122
Streetstyle

"Museums have sought to attract sectors of the public that do not - historically - attend museums. In this way, they acknowledged that they have neither acted as, nor been perceived as, being 'for the public', despite a history of being public institutions."
(BARRETT, Jennifer, Museums and the Public Sphere, p.5)

Hypothesis

Cultural institutions tempt to be easy accesible and therefore they should become the extension of the public space.

Theoretical backup

Today's mindset is about giving back art and music to the people. Since in the 19th century these cultural privileges belonged only to the elite being represented by monumental musea and opera's, the cultural heritage belongs now to the people like Robin Hood gave back money from the banks to the society.

Cultural institutions are now becoming defined as meeting places which have to be easy accessible and open for common interest. Therefore they have to try to do away the distinction between what is outside and inside.

Practical implications

Apart from being easy accessible and therefore often 'for free', the cultural institutions should also try to incoporate the myth of the street as being a 'free and public' space. As a result the institutions can be transformed into streets and squares with a roof on top.

Through implementing typical functions like restaurants and smaller shops the atmosphere of the public space outside is refelected inside the cultural institutions. Introducing a promenade architecturale, as Le Corbusier once introduced, can enforce even more the accessibility by elongating the walkable city.
Thereby creating an extension of the lived experience with a positive impact on the public space in general.

MN

See also

034 Bars everywhere; 005 Take a seat; 102 Great good place; 055 Forever promenade; 095 Role of pavement in public places.



Dok _ Gent, Belgium // development site of the Old Doks and urban design based upon a masterplan by OMA, to be realised in the next 15 years

References

FRANCK, K, & STEVENS, Q, (2007) Loose Space: Possibility and Diversity in Urban Life, New York, Routledge

http://dokgent.be, 28 May 2013

123
Pre-constructionworks

Often temporary use has an ongoing effect on the location itself. Temporary uses often make formerly rather unknown sites publicly known; this is sometimes strategically used by site-owners.
*(*Loose Space: Possibility and Diversity in Urban Life, *p281)*

Hypothesis

Empty construction sites can be a platform for activities to install a community of future inhabitants even before the project is realized.

Theoretical backup

Hudge urban developments or renewal projects are often characterised by the long time period it takes between obtaining the land and the exact placement of the first stone. Therefore, while these sites are waiting for future development, they can function as a stage for neighbourhood activities and by doing so a social network can be created between future inhabitants of the development site and its surrounding neighbourhood.

Practical implications

Each urban development project in which the site is abandoned and waiting for more then one year should allow local organisations to launch initiatives for and by the inhabitants of the surrounding area and orchestrate bottom up initiatives . As a result, a community platform can be created even before the actual development will be realised. In other words, a neighboorhood feeling can be constructed while waiting for the new neighbourhood yet to come.

MN

See also

125 Second generation; 032 Human scale neighbourhood; 034 Bars everywhere; 008 Guerilla beach; 115 Lively favela; 044 Grassroot strategies.



Interpretation of the urban sprawl by Renaat

References

BRAEM, Renaat, het lelijkste land ter wereld, Leuven: Davidsfonds, 1968

124
Land of houses and cows

Hypothesis

By creating points of gravity, the sprawled landscape gets an orientation.

Theoretical backup

The countryside of a landscape defined by urban sprawl, looks like a chain of houses with industrial buildings, roadshops and mixed with some cows to create an agricultural open atmosphere. By giving one example, the generic condition of this chaos inthe landscape is neglected and therefore it should be concluded that such a patchwork of urbanised areas is a condition to be found everywhere, and maybe the most in Belgium since the author, Renaat Braem, defines it to be the ugliest country in the world because of the fact that it lacks structure and clearness.

Despite the fact that the territory has been developed in such a chaotic way, it also expresses the freedom of the residents to built a house and later some additional buildings according to the economic welfare and society's policy.

Practical implications

Since the territory is dispersed, spaces can be defined as everything in between where all contrasting functions consist simultaniously next to each other. By introducing points of gravity into the landscape, the countryside should be able to reinforce its own specific identity.
Bigness should be enforced into this sprawled landscape where everthing is the same and nothing is different. This bigness, like a forrest to get lost into or a natural parc, an agricultural land or a major lake, should become condensation points in the foggy grey landscape. In order to trigger these interesting nodes where something different is happening, the current places which are well connected by transport or by other similar patterns are crucial in order to install a new scale in the landscape.
The theory of patches can also be related to this topic.

MN

See also

065 Design through patches; 067 Balanced Coexistance; 130 Edge visibility.



Landschaftspark Duisburg Nord

References

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WEILACHER, U, (2008) *Syntax of landscape, the landscape architecture of Peter Latz and partners*, Berlin, Birkhauser: Berlin

125
Nature as cure

Hypothesis

Nature as a transformation vector for brownfields.

Theoretical backup

During the industrial revolution, an industrial landscape defined the urbanised areas. Since their relocation towards outer regions or industrial parcs along major infrastructural junctions, they are leaving a trace of vacancy behind. This phenomena takes place as well in small suburbs as in capital cities, remember the London Docklands or Masséna in Paris. As a result the urban tissue can be revitalised with a hudge impact because the industrial plots have a massive scale.

Most of the vacant plots were used for heavy industrial activities, leaving polluted areas behind. Nevertheless these brownfields have a great potential, they are often neglected since development of such a hudge projects takes a lot of effort and especially investment.

Therefore, while the vacant sites are waiting for a new function and as a result become ruins over time, nature should take over. The healing power of nature should be standard applied on sites that are polluted in order to clean the soil and to prepare the site for further development.

Practical implications

Some specific types of vegetation are optimal for the transition phase between vacancy and future use. Therefore the vegetation is not just in order to add a green layer but to give the green a functional dimension and work. Moreover, the biodiversity can benefit from this naturalisation as well as the society itself.
Although the Emsher Park is not in this transition phase anymore, it is an example of how nature took over the ruin and later this became the starting point to create an industrial park.

MN

See also

121 Drosscape; 037 Potential of the ugly; 063 Residual spaces; 016 Urban regeneration; 106 An emerging discourse, nature as a process; 011 New life for old buildings.



Start of possible dike development.

References

RIJCKEN, T, Afsluitbaar open Rijnmond, een systeembenadering, TUDelft, zomer 2010

http://www.zuid-holland.nl/01_cooerdinatieplan_dijkring_14.pdf, Coördinatieplan Dijkring 14, februari 2010

126
The urban generator

"There are several new experiments under way that aim to develop a comprehensive approach to managing the delta in ways that improve systems of flood defense, protect the environment, create high-quality urban development and attractive landscapes, and support a prosperous economy. In that sense, the delta landscape is a laboratory."
(RIJCKEN, T, Afsluitbaar open Rijnmond)

Hypothesis

Monofunctional dikes should become multifunctional and steer urban development.

Theoretical backup

The delta-landscape consists of a bundle of dikes because of the land reclamation of past centuries. Therefore dikes are the physical translation of a manmade defense system against nature. By blocking the link with the water physically as well as visually, the monofunctional dikes seems to have lost their value in the landscape. Nevertheless, they can also function as structering element in the landscape and as katalysator for urban development. In the past, villages found their genesis on the dikes and quite often streets and houses were constructed on the dike creating the typical dike houses.
As a result the dike can steer urban development and at the same it becomes a mark in the natural landscape.

Practical implications

A dike seems a monofunctional element in the landscape, since its only role is to draw a line between nature thus unsafe and manmade thus protected land. Being aware of its potential in the landscape to steer development a dike should become multifunctional.
Therefore, a dike can represent a shift in the landscape not only between safe and unsafe but between natural and manmade , open and closed.
A squattered landscape defined by dikes appears and by manipulating their form and position they an stimulate urban development as well.As a result dikes should mark the border of urban development while at the same time, they can be a stimulation zone for several programs and multiple functions.

MN

See also

117 Adaptive dyke; 039 Landscape the dikes; 002 Multiple way roads; 097 Recreational defence .



Traces of historical Rotterdam after World War

References

PALMBOOM, Frits, Rotterdam, verstedelijkt landschap, Rotterdam: Uitgeverij 010, 1990

127
Landscape tracing

Hypothesis

The landscape patterns should form the 2D underlay in the 3D urban construction.

Theoretical backup

Objects take their position in space as 3D elements whereas the landscape is refered to by 2D representations. This representation also called historical pattern is actually composed out of several structuring layers like the subsoil characteristics, archeological features and previous patterns of infrastructure in the landscape.

One layer is extraordinary in the composition of the pattern of the dutch landscape, namely the traces of the land reclamation. The process of making land is reflected by the polder structure and former creek patterns. The specific conditions by which the land reclamation took place, has still impact on the decisions made today.

Practical implications

The characteristics of the landscape form the basics for research by design as well as they have the potential to be physical translated in the public space.

According to the land reclamation pattern, polders can be renaturalised and wetlands can take over the agricultural land again. In the urban space, public awareness and historical dimensions should be implemented in the construction of new developments and thus new landscapes.

MN

See also

031 Explorable city space; 033 Play with the context; 038 Back to history; 061 Acropolis in context; 062 City is a narrative; 103 Diachronic cultural landscape information system; 084 City's artifact; 089



potential to extend the metro network of Rotterdam by using the former tracks in the Delta

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128
Envasion

"Bij de bewinslui, na de Belgische onafhankelijkheid, ontstond het besef dat het ging over één van de basisvoorwaarden voor een snelle economische ontwikkeling."
(België onder stoom, p143)

Hypothesis

Public transport as tool for colonising the landscape.

Theoretical backup

The past construction of public tram networks all over the countryside made it possible to live in a house with some land while working in the city.
The result of this post war policy is the well known phenomenon of urban sprawl. Some of the former tram lines were actually demolished or became unused in the benefit of the car based networks and according lifestyle.
Revitalising the former public transport network could benefit the development of the countryside. Therefore the existing networks in the city center can be extended and can have an influence in the territory.

Practical implications

Public transport generates people and activities at specific stops. Once this logic is inversed, the creation of new stops can be a mean to steer development in the landscape. Former tracks which are now often used as bicycle paths can be reused so the countryside can be reconnected by public transport to the city.
By reintroducing a dens public transport network new points of interest are created in the open landscape, from recreational parks to outdoor sport facilities or beaches.

MN

See also

031 Explorable city space; 040 Vaporetto city; 083 Slow & Fast; 091 Transit oriented development.



statement for more dynamic islands and landfilling like Waddenislands in front of the delta

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http://www.dezandmotor.nl, 27 May 2013

129
Let the water play with sand

"No sediments, no Netherlands."
(statement Jan De Mulder, Deltares)

Hypothesis

Protection of the delta-landscape through landfilling.

Theoretical backup

The soil of the dutch Delta shrimps because of drainage and peet reclamation. Therefore the land becomes more vulnerable and better protection against flood is required. Water has always had a dominatant role in measurements and threats related to climate change - water as cause and therefore a solution based on the water perspective is needed and seems logic. Nevertheless two processes are taking place!

Apart from the fight against water, there is a need for sand. A changing mindset is necesarry as well as creating a different perspective with alternative solutions like the nourishment of coastal plain or land filling as an adaptation option.

Practical implications

The traditional black and white approach towards watermanagement is no longer sufficient to tackle the rising of the water. A more adventorous relationship to nature and a strategy that exploits impermanence and temporality - providing a framework for occupation - should become the standard of dealing with the dynamic delta.

In practice, a gradual raising of new development areas can already be a start. On top of that more sand has to be put into the watersystem. Therefore dynamic islands should be created that are allowed to disappear again over time since the water can carry this sand to other places at the riverbanks or coastline in order to protect and safeguard the existing land and become part of the natural system again.
The tird option is to create multifunctional dikes as landscape element with extra sand that is allowed to be flushed away .

MN

See also

116 Dynamic coast; 100 Dump the trash.



Going from the open landscape into the dens urba fabric // edge becomes visible and defines the impression of the village

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130
Edge visibility

Hypothesis

The borderline of any urban structure should be taken into consideration since it defines the perception of the village.

Theoretical backup

Opposite to the landmarks and well maintained parks in the inner city, the border of every village, town or city defines the image of the city as well. The city is already perceived and experienced from the moment visitors or inhabitants enter the city and even before when the edge of the urban tissue appaers on the horizon. Especially for cities enclosed by an open landscape, the outer city edges are crucial for the perception of the urban tissue.

Practical implications

By paying attention to how the urban tissue appears in the landscape the visual perception can be improved. Moreover, the distinction between open green and closed grey landscape can become or more subtle or very sharp. As long as designers are aware of the impact a structure on the edge has for the image of the city.

As a result, according to the already existing “light” plans of a city, an urban area might develop an “edge” plan with a clear vision as well.

MN

See also

065 Design through Patches; 067 Balanced Coexistence; 001 Green without borders; 106 An emerging discourse: nature as a process.



Currtiba map

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131
Transform the infrastructural space

Hypothesis

Under the background of landscape urbanism, landscape architect will transform the infrastructural space with a functional engagement as well as a ecological process.

Theoretical backup

In the twentieth century, we saw a big development that people standardize the infrastructural system. In this situation, these infrastructural space were evaluated only based on technical criteria, and people did not consider its ecological, aesthetical and social aspects. Landscape urbanism suggests to transform these mono-functional infrastructural space to a inhabited urban space, to a meaningful urban space, with a functional engagement as well as a ecological process. These infrastructural spaces include mundane parking facilities, difficult space under the elevated roads, complex transit interchanges, and landscape generated by waste process.

Practical implications

The relation between natural system and public infrastructural space give landscape architects the opportunity to transform these spaces in this way. The most permanent and enduring elements in a city are always relate to the underlying landscapes—geology, topography, rivers, harbors and climate. In Curritiba, Brazil, landscape architect designed a new open space system which consists of a network of parks. This system has the function of regulating floods and collecting, treating urban runoff.

HF

See also

2. Multiple ways roads
58. Porous water city
45. Sustainable Adaption of Infrastructure



Oregon Landscape in motion

132
Digital landscape video

Hypothesis

The subject of digital landscape video the has emerged recent times is a ideal tool for the contemporary landscape observation and landcape representation.

Theoretical backup

It is important to reconsider the perceptual limitations of landscape thinking. Aren't the fleeting sounds of the city just as significant as the tweet of a bird in our appreciation of a place. Landscape video holds an argumentative discourse about site specific qualities and events that are neither staged nor planned. The video material gathered shows a place without cosmetics, thus its content is very raw and potent.

Practical implications

The images of the video is almost immediate and true to a place. After combined with different times and movements, it can show the continually changing facets. Transformation and alteration over decades can be compiled and visualized. This kind of video can not only be used in the rural natural landscape, but also can be used in the urban landscape. For example, in order to explain a use situation of a plaza, we can set several caremas around the plaza to record the video of the people usage. And then we can use the video to explain the plaza clearly. What is more, we can also use this video as an effective tool to improve the plaza.

HF

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A residential architecture in Massachusetts.



Long Island's Levittown suburb

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133
Homogenizing cities.

Hypothesis

Modern architecture is creating homogenizing cities.

Theoretical backup

The postwar modern architecture is homogenizing the world. The theory "Critical regionalism" supports this view well. Critical regionalism is an approach to architecture which counters individuality and lacks of identity. Modern technology is homogenizing the cities by facilitating the spread of a single, mediocre culture.

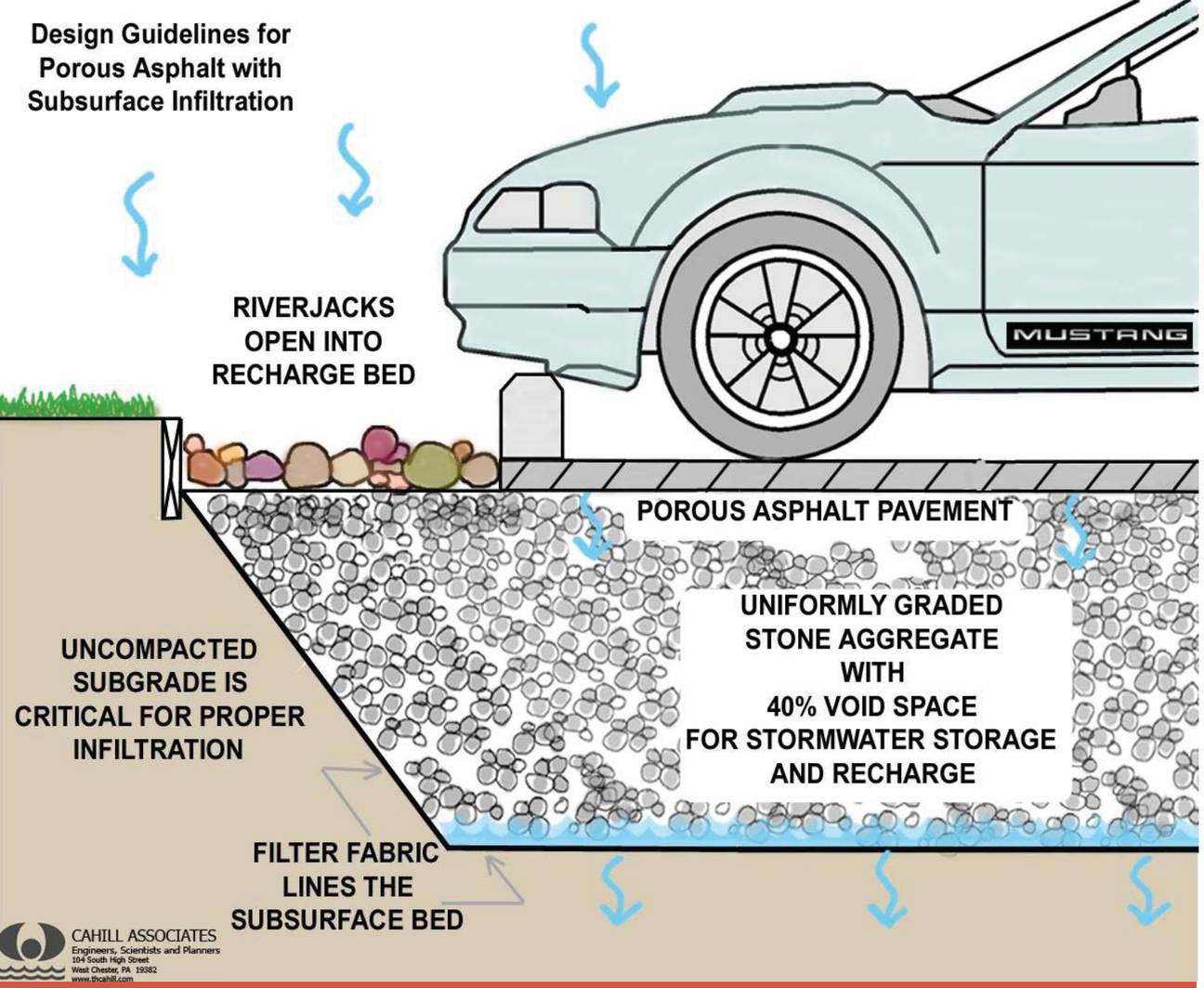
Practical implications

When architects design the building, we should know how to return to source, how to revive an old, dormant civilization and take part in universal civilization, how to mediate the impact of universal civilization. The value of architecture should be placed on the geographical context.

HF

See also

33. Reflect the context
52. 'Making' a Unique City



Porous pavement in parking place

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134
Porous pavement

Hypothesis

Porous pavement decrease the risk of stormwater.

Theoretical backup

Porous pavement is a permeable pavement surface with a stone reservoir underneath. The reservoir temporarily stores surface runoff before infiltrating it into the subsoil. In traditional way, the groundwater can not be discharged, which led to a number of environmental concerns.

Practical implications

The ideal place for the porous pavement is in the low traffic or overflow areas. Since the reservoir area underneath porous pavement stores and infiltrates surface runoff, using porous pavement will significantly reduce the amount of land needed for traditional stormwater management measures.

HF

See also

8. Guerrilla urbanism
29. Green adaptation for flood managemant
58. Porous water city



Seattle gas work park

135
Brownfield transformation

Hypothesis

Brownfield can be transformed to valuable assets.

Theoretical backup

Brownfields are abandoned industrial or commercial land that is often contaminated. Nowadays, a number of methods have been devised to develop strategies for sustainable restoration and reuse of brownfields. Innovative remedial techniques used at distressed brownfields in recent years include bioremediation and in situ oxidation. Often, these strategies are used in conjunction with each other or with other remedial strategies such as soil vapor extraction.

Practical implications

As long as we use the proper method, these brownfields can also be turned into useful palces. Portland, Oregon, has pioneered the use of road and rail infrastructure to support the cleanup and reuse of brownfield sites. In Seattle, rusted remains of a gasworks were left in place to add character to Gas Works Park. One of the most well-known areas in the United States for brownfield redevelopment is Pittsburgh, Pennsylvania, which has successfully converted numerous former steel mill sites into high-end residential, shopping and offices.

HF

See also

8. Guerrilla urbanism
125. Second generation
53. Fiesta Galore

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136
A Beautiful Energy Landscape

Hypothesis

The modern windmills for energy not only can make a profit, but also a wonderful landscape for us to see.

Theoretical backup

With the technology development, we can see more and more modern windmills along the seaside. They can produce a large amount of energy. The wind power is clean, renewable and produces no greenhouse gas and uses little land. Worldwide there are now over two hundred thousand wind turbines operating, with a total nameplate capacity of 282,482 MW as of end 2012. At the meantime, windmills are always put into grid pattern along the seaside which becomes a very wonderful scenery for people to see. Sometimes it even becomes a symbol of a country, like Netherland. However, sometimee, it also has some disadvantages, such as the big noise which is produced by the windmill turbines.

Practical implications

As a designer, when we design a seaside landscape which contains the modern windmill, we should first be aware of the importance of these windmills which its function is not only economic. They may be become a important landscape for a certain area. So, while keep it have a good economic profit, we should also consider its location and pattern in a aesthetical point of view. In this case, it can have a function of entertaining visitors.

HF



Source---http://www.dakshin.org/122

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137
Intertidal movement

Hypothesis

The intertidal movement is good for the surrounding ecological habitats.

Theoretical backup

The intertidal zone is a very important zone for the surrounding habitats. Intertidal zone is created by the intertidal movement. Intertidal zone is the area between low tide line and high tide line. The tidal movement will bring plentiful micro organism to the intertidal zone. These micro organism become important food for the surrounding habitats. What's more, because of the intertidal movement, the water will become more dynamic. As a result, the water quality will become much more better.

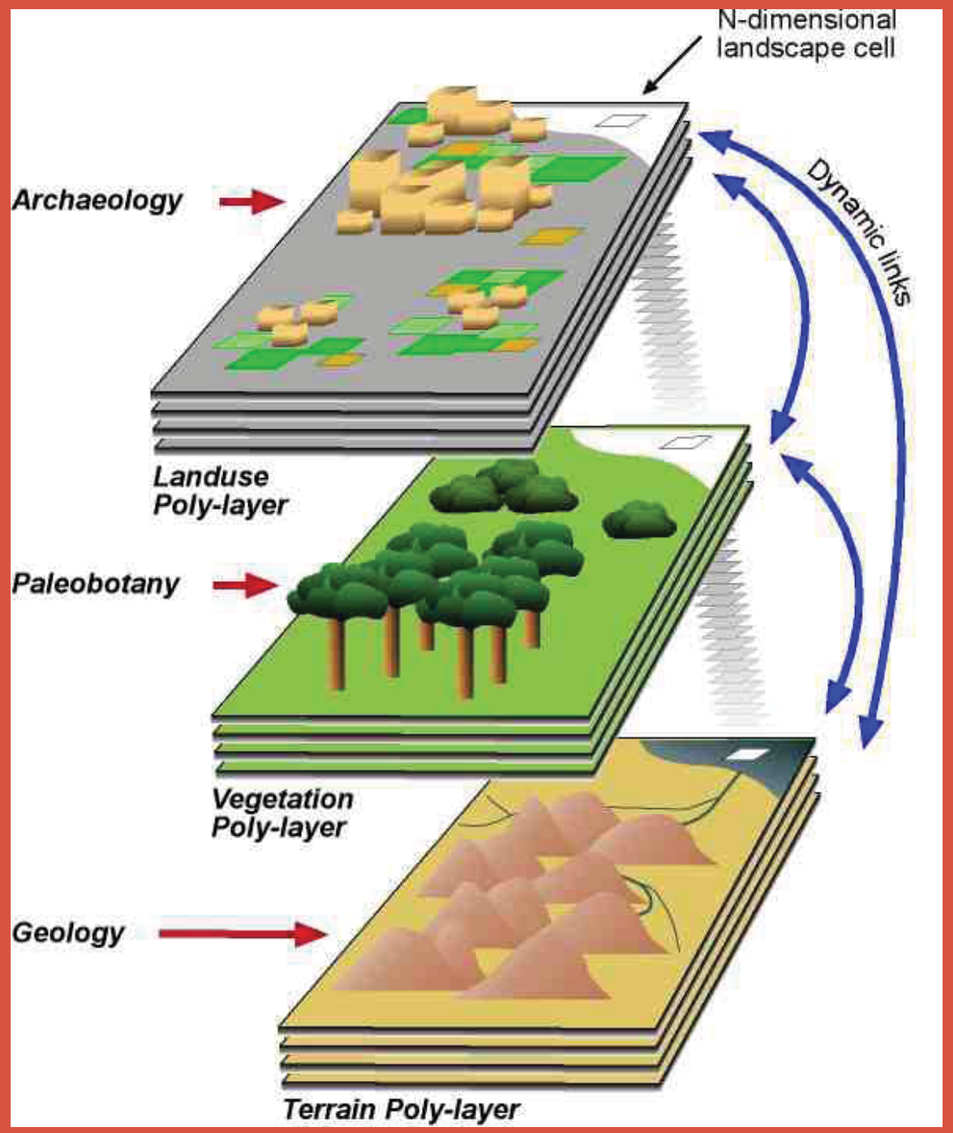
Practical implications

Many landscape designer and urban designer make some still water body. The water is constant, and there is no water movement within the water body. As a responsible designer, we should prohibit this kind of thing. Designers should try to use clever methods to keep the original intertidal movement as much as possible. Sometimes, when an area's tidal movement is prohibited because of the artificial reason, we could even to try to reinforce the tidal movement in this area, like using the topography methods.

HF

See also

116. Dynamic coast.
117. Adaptive landscape of dike



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138
Landscape dynamic process

Hypothesis

Landscape development is a dynamic process

Theoretical backup

Landscape itself is not a still thing. Landscape development is a dynamic process which is effected by wind, rain, plant, climate and so on. The form of landscape development is dynamic. More importantly, sometimes the operating function can also change with the time. And sometimes, in short term, the landscape is dynamic and flexible according to the different outer elements. Like some landscape 'soft dike' have the different scenario to deal with the low tide and high tide within one day. While it is flexible and dynamic in the long term. For example, some soft dike will change with time to better deal with the future sea level rise. The different dynamic landscape layers have the different speed of changing. Specifically, the settlement layer maybe have the fastest changing speed. The natural geography layer has the slowest speed. And the infrastructure layer is in the middle.

Practical implications

When we design a landscape, in the beginning , we should consider its important dynamic elements as much as possible. Sometimes we can use these dynamic elements to make a better effect for our landscape. And when its dynamic elements are not good for our design, we should first learn to try to find a solution to transform the disadvantage to advantage. We will learn to how our landscape can work with these dynamic elements, rather than to fight with them.

HF

See also

116. Dynamic coast



Source----http://www.turenscape.com/english/news/view.php?id=187

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139
Productive landscape

Hypothesis

Productive landscape can be combined with recreational landscape

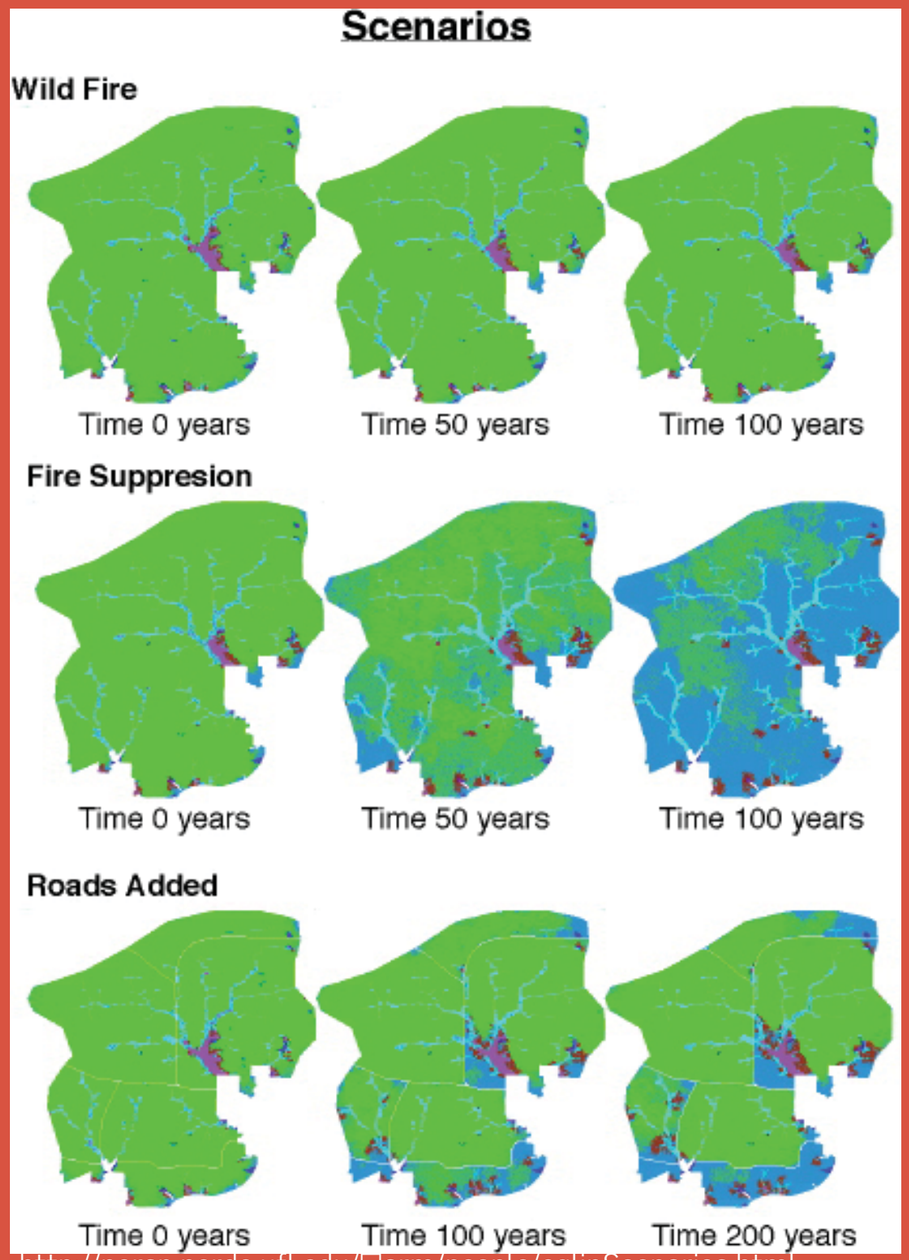
Theoretical backup

Nowadays, productive landscape becomes a popular word in landscape field which means a landscape can produce some food of some fruit for people to consume. This kind of productive landscape can also have the recreational function simultaneously which make the productive landscape more interesting. As a result, more people would like to go to the landscape and enjoy it, and even to participate the productive process. People can help the landscape to sow the seeds, irrigate them, maintain and collect the harvest.Also, in the netherland, there are lots of farmlands. People add some interesting recreational function on it. This is a good example of interesting productive landscape.

Practical implica-

When productive landscape is combined with recreational landscape, the advantages are enormous. So as a designer, we could purposely use our design to guide the visitor to take part in the productive process. For example, we can make elaborate open space within the productive landscape to direct people to come in and experience the landscape. And then we can make some guidance panels along the landscape to teach people how to farm. Besides, as people recreate in the productive landscape, people will have a distinguished experience, compared with other kind of creational landscape.

HF



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140
Present landscape process

Hypothesis

Present complex landscape process by several scenarios is easy for people to understand

Theoretical backup

Some landscape process is very complex. People can not understand through one single picture or one model. With the time change, the change of landscape is happening all the time. One scenario represents one process situation of a series of actions of events. We can divide the landscape process to different scenarios and represent these scenarios separately. In this case, people can see this landscape changing progress more clearly. Presenting the landscape by scenarios is a good way of communication.

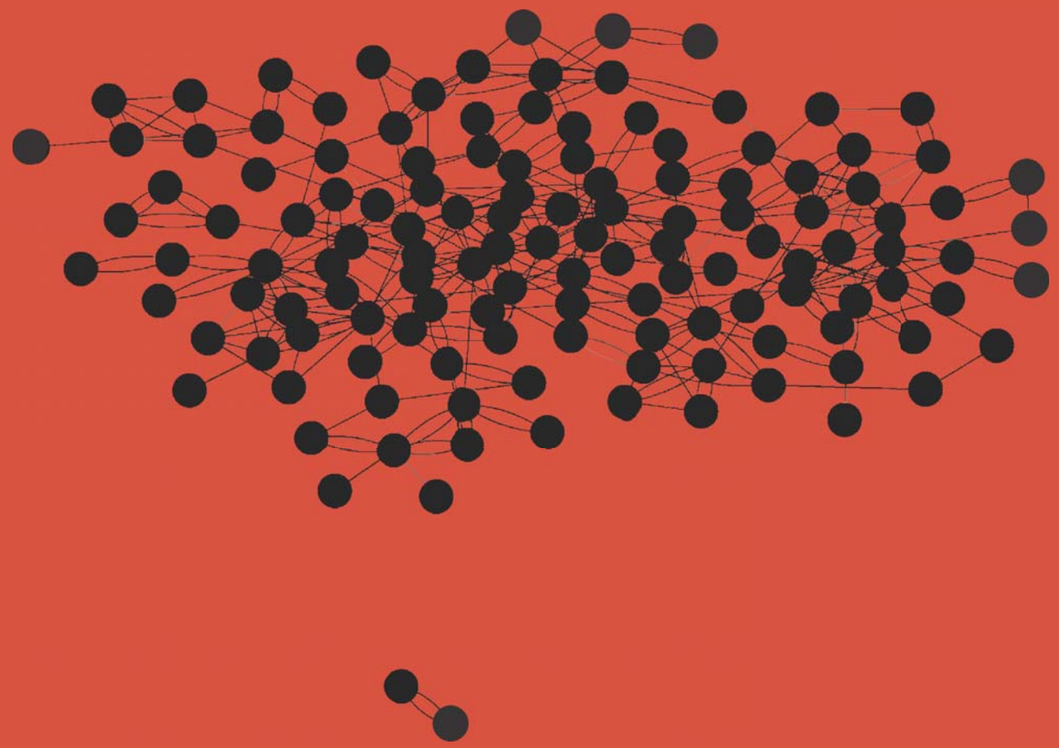
Practical implications

In our design training process, we could enhance the understanding about the scenarios of landscape. We should have the ability to separate one whole complex process to several clear scenarios, arrange them in clear sequence and present these clear scenarios to our audience.

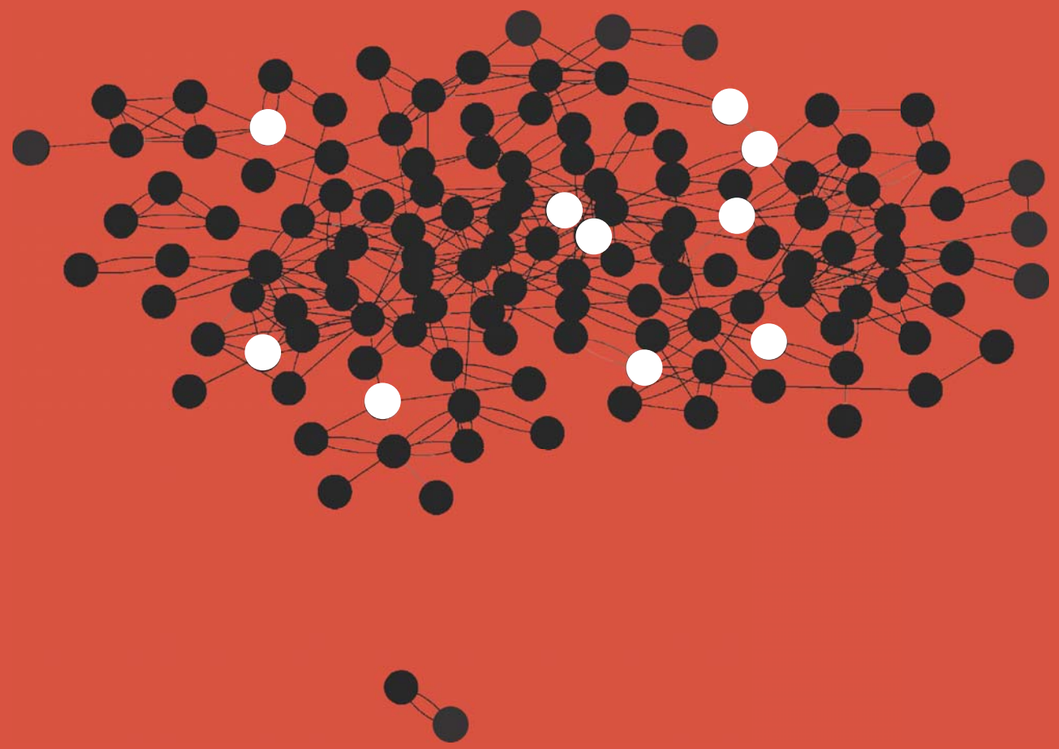
HF

See also

116. Dynamic coast.



Reflections



LC
Luiz Carvalho

There has been a growing call for more flexibility in planning, perhaps forged by economy or by a larger involvement of society in questions related to design of cities and public spaces. Whatever reason may be behind it, it is a fact that in some recent projects from different scales planners and designers are trying to embody flexibility in the way projects are implemented. Patches, urban rules or patterns are been used to assure a certain flexibility in the solutions and at the same that the major objectives of a plan or design are achieved.

In the theory course part of the second semester of EMU programme we have been challenged to understand the theory behind, propose our owns and reflect on the use of patterns as a framework to design, how a number of actions, intentions or guidelines can once combined result in something far more complex.

Initially we have been asked to come up with five patterns that would somehow express our own vocabulary, parts of our design language based on our previous professional or academic experience. It was an interesting process, to try to grasp to what extent some design concerns or priorities are part of an authorial vocabulary. In my case it was not easy to identify a linear path of design choices; maybe it was related to the fact that my professional history involved the work in projects of diverse scales and complexity. Looking back, these first set of patterns are somehow related more directly to the work done for the previous semester studio than to some sort of personal history.

Second part was to do a review on the patterns from the other students, both from current semester and last year students. That process was interesting basically for two reasons, first to realize how we were still influenced by the topics discussed in last studio and mainly to see how there is some sort of personal style, how professional background and other factors are translated in the making of patterns.

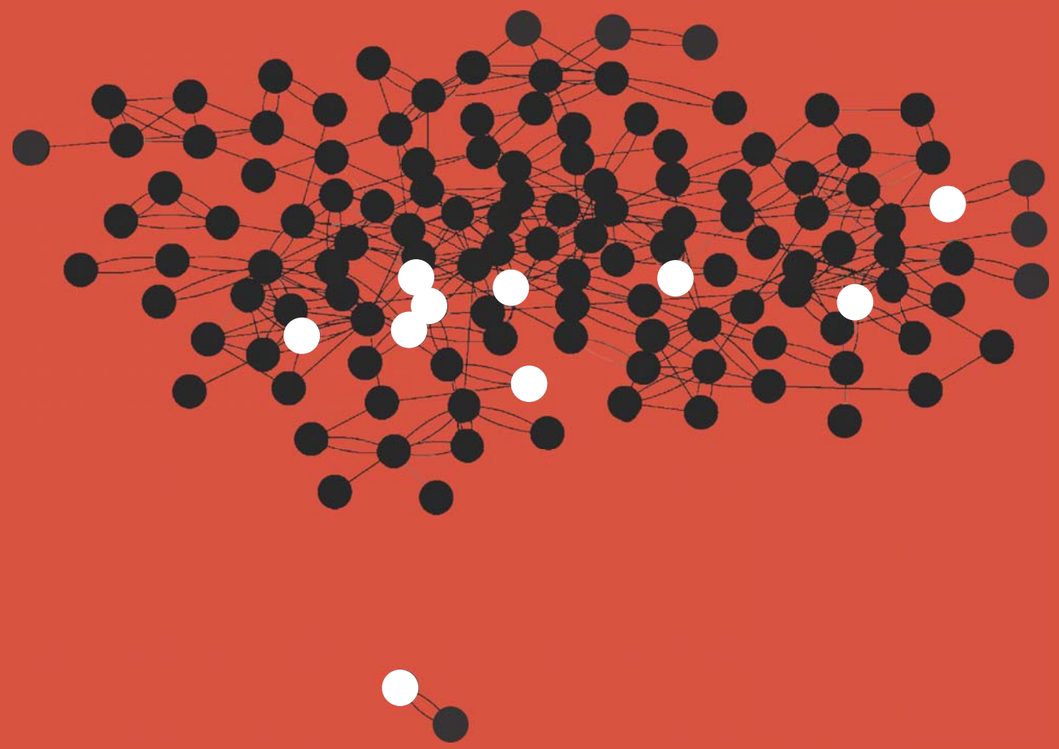
Next we had to formulate the second group of patterns and that time they were supposed to be related to the questions discussed in the current studio, so it was expected that a greater number of patterns would be similar and that each person´s patterns would also be more related to each other. An analysis of the final matrix where the connections between patterns is demonstrated shows that that was not quite the case. Even if most of the patterns dealt with water management, defence of the delta territory and landscape the number of redundant patterns was not so vast and in my case there are almost no direct connections between the five patterns.

In the case of my patterns little negotiation was needed with my colleagues, in only one case [03] 'Water my way' the question of scale had to be readjusted to avoid redundancy with [40] 'Vaporetto city' from Jane Bobkova. The adjustments needed in my patterns were basically due to the remarks of Machiel and were more about emphasizing the beneficial aspect of certain patterns [02] 'Multiple way roads', narrow the objectives [10] 'Info point' or expand it [08] 'Guerrilla urbanism'.
The process of finding relations with the other patterns was not so direct; first I have identified potential connections by just reading the titles which proved to be inaccurate as some of the titles can be misleading. A more detailed reading established more connection than I expected.

The main outcomes of the whole process were first to realize that some patterns that at first glance do not have a spatial implication can still guide design and planning. Other point was to realize the infinite ways of combining, clustering and classifying the patterns exemplified by the four matrixes presented here.

However personally the most striking outcome was to realize that certain concerns that were not part of my design vocabulary appeared in the doing of the patterns, questions like community participation or spontaneous planning were not part of my past work experience in Brazil but they are the key aspects of patterns like [08] 'Guerrilla urbanism' or [05] 'Take a seat'.

Furthermore the most relevant conclusion of the analysis of the process is that working with patterns has applications in a specific project but also as some sort of personal catalogue building. One must just be aware that this type of approach has their limitations and cannot be seen as a doctrine that can be implemented regardless some careful contextualization.



MZ
Miao Zhang

During this semester, we are assigned to write several patterns in terms of urbanism, architecture and landscape. Without specific content and paradigm, patterns are constructed as an open and free platform for us to express, explore and communicate design ideas with other designers.

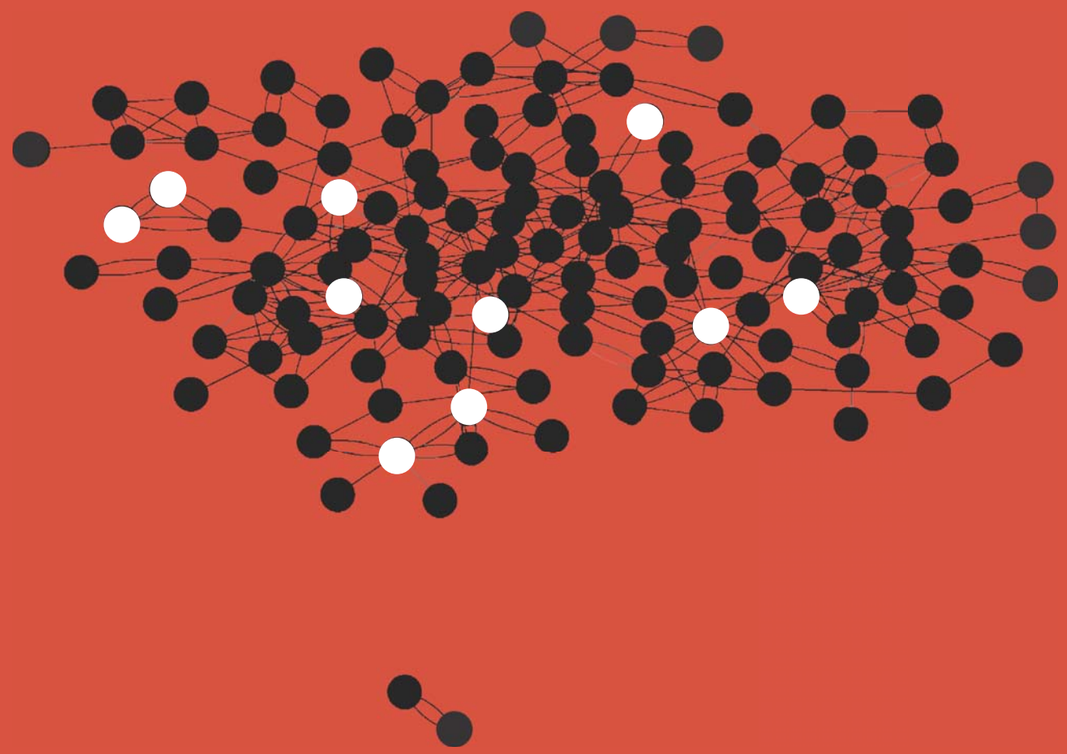
At first glance, there is not starting point for writing patterns due to the randomness. However, as I research and explore, I found that the starting point is exactly your aesthetic, value and view to the world. Additionally, the patterns varies among us based on different personal emotion concerns, education background and culture contexts. It is so interesting that our pattern can relate and complete other designers' ideas.

In order to apply our patterns to real design assignments, the patterns based on the sound scientific basis and dynamic feedback cycle. It is raised from a hypothesis generated from phenomenon triggering our interests. Then a series of researches and surveys are conducted to construct the scientific background. And the hypothesis is tested by application example in real world. After the evaluation and test, the original version of pattern comes out. Afterwards, we can exchange our patterns to the others. Through the share and critical, we can get an insight to other designers' ideas and views which are especially useful to enhance and enrich our sensibleness. For instance, the Reshu's Towards a hospitable urban habitat gives me a new perspective to combine the nature and urban to build a hospital environment and Antonio's Light pattern focuses on the atmosphere influence rather than the traditional function of light which explores my inspiration. On the other hand, I got a lot of feedback from others which are very handy to transform my ideas to more specific and realistic materials which can be used in the other designers' assignments directly.

Most importantly, the network of our patterns is creating to show the relationships between our patterns. Through the network, we can catch the essence in urban design. As more designers' work on it, the database of ideas is expanding to every corner of the urban design which, finally, becomes an ambitious project for every urban designer. The project records, visualizes and structures the ideas in the form of patterns enable everyone to open the eyes, generate the idea and find the solution.

During the whole semester's study, I realized that patterns can not only be discussed in the theory class, but also it is a methodology process, it helps to make some guiding principles to tutor our design and research. For my own work, the first five patterns I made according to the former experience and language which stated with my interesting topics and made hypothesis by myself first; while the last five I wrote more related to my design studio which started with theory researches first and made the hypothesis last. I found they really had different qualities; the last five looked more accurate and well connected with the theory backups. I will insist on working with patterns in my future career, I hope one day I could shift these patterns into my own languages.

Besides, the course is demonstrated very heuristic and interesting. The integration of self-exploration and interaction between others promotes not just our ability of conducting scientific research but also evaluating and adopting others' ideas. To build the integrated platform of patterns, I believe there are varied ways to make the "complex city", and we explored three types of network during the class which I think is the most important part for the whole process. I suggested to classify patterns into two dimensions, one from design to policy (as specific to general), the other can be divided into different columns as economic, social, environment, philosophical and technical (categories). Based on the typological analysis, people can have a more efficiently and effective way to accept and apply the patterns based on their own needs.



SX
Si Xiao

At first class, I was absorbed by the complexity of pattern network of senior students. On the one hand, I quickly doubted that was an elaborate art work rather than an inner relationship among all patterns. Since people are always attracted by complicated things such as urban fabric. On the other hand, when I focused on the structure of patterns, I was confused about how to make a pattern with a compelling hypothesis, strong back up and practicable implication. The huge collection of patterns likes a universe of diverse values, academic backgrounds and interests of articles. It is too fascinated to lead people losing its inner logic. Therefore my first version patterns were collected from three different fields, governance and policy, urban planning and design, technical methods concerning urban problems. The title and hypothesis of patterns were made from random interests such as news (sinking Cyprus), papers (Green adaptation for flood management) and former assignments (Danwei welfare housing).

After talking with tutor and reading patterns from other students, I gradually realized that the relationship with other patterns is as same important as the pattern itself. And I was glad to read other interesting patterns such as 76&87 “Floating public spaces and buildings” made by Katherine, 13“Amazing animal bridges” made by Miao and 93 “Glass is green” made by Aditya. So that is the iterative process of making patterns, connecting with others and doing improvement. Then I found some of my patterns about governance and economy was difficult to associate with other patterns. Therefore I have to change some topics and hypotheses to adapt to a relatively more technical solving perspective. This improvement reflects our work should not be a collage of all patterns, but a strong body consisted of related hypotheses. At last, I understand the inner logistic of pattern network which looks an elaborate complexity is the most significant product of our works.

And about the pattern itself, firstly I thought it was a kind of summary of an academic paper or a short literature review. But then I realized that pattern should consist of several key parts, a short topic and a compelling hypothesis which based on scientific phenomenon or existing paradox. And of course the topic and hypothesis should available to associate with other patterns. In addition, the theory back up should really be briefly but be explained clearly the complicated references. At last the implication should close to reality which could solve the problem or improve current method.

The theory course of this semester is really different from last semester. Unlike too much readings and presentations gave by Steven Read, the pattern work more concerning about producing and cooperation. From making patterns to final pattern booklet, our works get a lot of improvement from exchange opinions with each other. That is so positive to share patterns and at last we make three methods to conclude all complicated patterns into diagrams. These mapping show the inner relationships of all patterns by various indicators, it reflects the scientific methodology to making a “pattern universe” concretely.



JB
Jenya Bobkova

During our Theory course we have tried to understand the idea of complexity by producing patterns. In the beginning it was hard, but more deeply we explored the topic, or, let us say, the game, it appeared to be more and more interesting. In my reflection I will try to highlight which sides of the process were most important for me, and which were most difficult to cope with.

A term 'pattern' was introduced by Christopher Alexander, as an attempt to translate a range of good design practices in a sort of a dictionary which, theoretically, anybody can easily apply. But language is never a product of one person, it is created by many people through times and it is constantly changing. So, in that sense, the factor that our 'pattern language' was created collectively is crucial. When trying to define for myself, what 'pattern' actually means, as a starting point I used relatively abstract ideas in my head of how the city should look like and operate. As far as my theoretical background was limited, the beginning was quite difficult. The full understanding of the notion gradually came to my mind only through the process of producing patterns and relating them to other students' work.

The first step was to create five patterns related to our personal experience, and then to produce 'water-related' patterns as a link to our studio projects of this semester. I understand personal experience mostly as a collection of individual perceptions of the city which we, as designers, must be able to translate into future practice. So, my first patterns were "Explorable city space" and "Human scale neighbourhood". When idea comes not from the book, neither from professional experience, it is not easy to define it, even with the strong support of Jane Jacobs or Jan Gehl. Struggling to explain and extend the topics, I have produced several patterns related to first two, which in the end shaped the fields of my interests. These were patterns about acting within existing historical context and patterns about social-environmental issues. In fact, my second five patterns were also included in these fields, but they were less abstract and more Dutch specific.

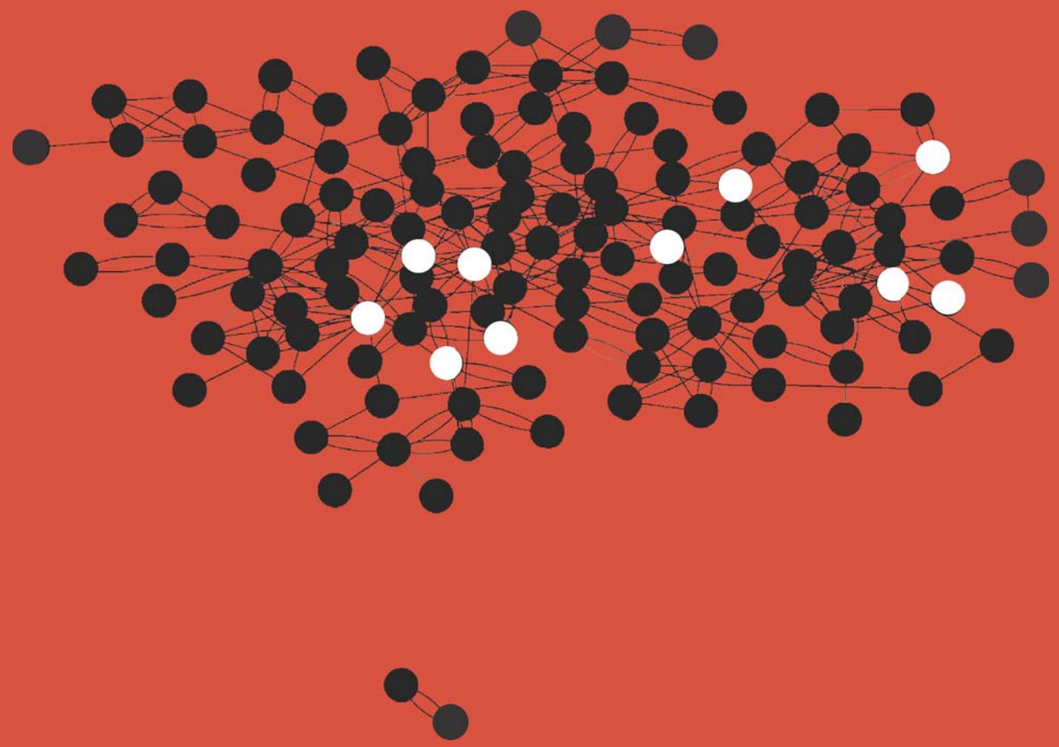
The process of creation went along with broadening my theoretical background, and discovering more and more aspects of topics which seemed to be quite easy from the first sight. For example, book of Richard Marshall 'Waterfronts in post-industrial cities' help me a lot in understanding complex relationships between the cities and the water.

We also had a critical look at pattern book of last year students – it helped us to figure out more precisely what a pattern should be about. Speaking about relating and discussing patterns with each other while doing them, it was problematic, - just because there were so many people involved. Nevertheless, we had a long brainstorm session with Andrea Überbacher. As far as her patterns were more planning-oriented, and mine were more concerned about design issues, we found it extremely helpful to exchange and discuss them from different points of view.

After patterns were finished, we could relate them to each other more easily. At the beginning I looked through all of them and found only few relations. But then, with a closer look, there were more and more relations and not only because sometimes we came up with similar ideas. Some patterns of mine were still vague for me in the end: finding six, seven, eight relations helped me to enrich my own understanding of a simple idea with six, seven and eight new aspects. At the same time it was exciting to explore some fields of patterns not related to mine at all, or some 'unique' patterns, like one of Miao Zhang 'Amazing animal bridges'.

The work on patterns has strongly helped me to shape my design approach, to understand Dutch context and to enrich my theoretical background. I think in future it would also be interesting if students came out with more patterns related to their home countries. For example, my favourite pattern was Germana Camara's 'Lively favela', - a beautiful idea which would never come to my mind, just because I am from the other part of the world. Also, sometimes people from different countries produce a sort of patterns which are very contextual. In her pattern 'Acropolis in context' Anastasia Chranioti writes about 'overpreserved' monuments. Speaking about Moscow, for example, this pattern would be exactly the opposite. These paradoxes are essential in understanding the full complexity of design and planning practices all other the world.

To conclude, by now, I am only starting to understand the idea of complexity. It is a constant learning process, and to get closer to this idea, we should read, observe reality, communicate, and try to embed collected experience into our work. So I will definitely use patterns in my future practice.



MK
Mrudhula Koshy

THE START

The Spring semester of 2013 for our course had an interesting andintriguing start in the course of theory. Instead of being asked to write a paper which is the norm, we were asked to form patterns, which would ultimately be linked to the patterns made by the others resulting in a pattern field. The output would be a field which would have axes ranging from concrete to abstract and from small to large scale, where the patterns would be placed depending on their formative orientation. Furthermore the most relevant conclusion of the analysis of the process is that working with patterns has applications in a specific project but also as some sort of personal catalogue building. One must just be aware that this type of approach has their limitations and cannot be seen as a doctrine that can be implemented regardless some careful contextualization.

THE DILEMMA

There were of course the quintessential puzzled expressions as to what this exercise would lead to and what would we use as a starting point. There was also the predicament of how to fix the precarious line that separated the theoretical background from the practical implication. Personally, I found the concept of the assignment quite interesting as 'The Pattern Language' written by Christopher Alexander was one of my favourite theoretical books during my bachelor studies. I must admit that cover to cover reading of the book did make me under – estimate the purpose of the assignment initially. I wondered if I would perhaps be reading anything new from among our own devised patterns as Christopher Alexander had after all spend years on his research and the result was an exhaustive collection of design principles with all possible combinations.

THE BRAIN-STORM

However, this was to change once we all set to start
forming our own patterns. Each of us had to make ten patterns, five on any topic that we wanted to and five in relation to the dynamics of the delta which was our research agenda in the Design Studio. We all started by first thinking about our favoured topics and how best may they be converted to feasible patterns. I had always been interested in the dynamics of the street and the interaction between the people and public spaces. The kind of urban environments where people are primary and not the infrastructure as is the norm in functionalist, modernist cities. Effectively designed public spaces with minimal physical barriers have always excited me and most of my patterns have leaned heavily towards the corresponding resulting dynamics. For example, Fiesta Galore, The After – Hours, Forever Promenade, A Buffer that connects and Visible water are the patterns that initiate a dialogue with the public space and people. The same concepts are tackled at a larger abstract level in the patterns: 'Making' a unique city and An 'Alien' Plan.This made the conception of the patterns
an intensely personal experience as it seemed a consensus of our understanding and preferences for
certain spatial patterns.

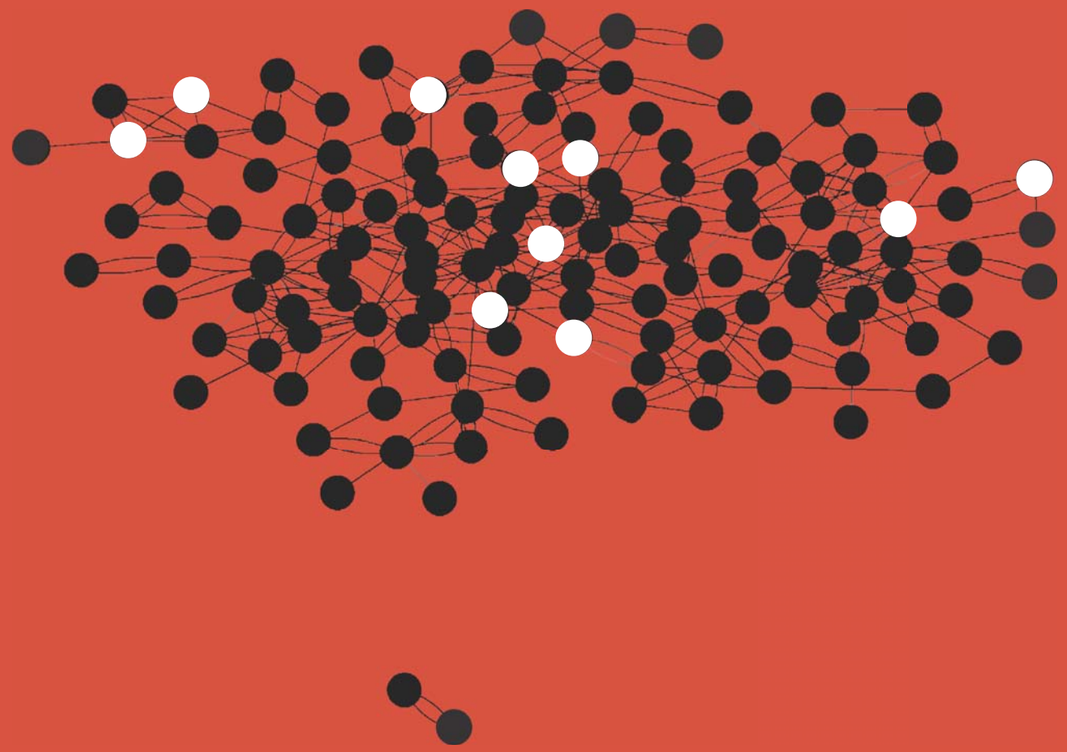
THE INTER - RELATION

I find that the narrowing down of topics helps in positioning each of our natural directives. For example, most of Germana's patterns have resonations similar to mine. Coming from populated
countries such as Brazil and India respectively with
festivals and carnivals that transform the public space into a place with many dimensions, our patterns have directives towards vibrant public spaces. Most of Katherine's patterns such as User Adaptation, Crowdsourcing, Simulations and Urban rules deals with an objective outlook on how to allow the local people to have a say in the design of cities for them, much like in most westernised cities nowadays which opt for a public participation in spatial design. Antonio's patterns such as Light Pattern, Steps, Mind the Step and Design Dimensions seem to have a very personal vibe about them and they seem to be the result of the creative designer in him as they all focus on symbolic or physical elements rather than principles.

THE REFLECTION

Formulating the patterns has been a quite useful exercise for me. It made me look critically at the theoretical texts that I used to seek inspiration from.

Most patterns do not imply a normative approach; they can be seen as implying a desired direction. The relations between the patterns helped in categorising them. In addition to the first matrix, we have also devised three other matrixes which look at the positioning of the patterns from a socio-economic and philosophical angle. These additional matrixes have shown that there are numerous ways
of classifying patterns, each initiating a different dialogue with the other patterns. The methodology



AC
Anastasia Chranioti

Studying complexity through the interconnections of our own notions and patterns of sustainable development was for me an intriguing process. The course of Theory for this semester started with a very interesting lecture by Juval Portugali regarding Complexity Theories. In this lecture we were introduced to the idea of complexity as a structure that resembles to processes in nature, where simple units –like the cells of a leaf- create complex interrelations with each other .

When setting the aim of the course, Machiel van Dorst also positioned the complexity factor- "When it's not complex, it's not interesting": thus the objective was to first indulge into complexity in order to narrow down in the end to simple answers. The course was divided into four main stages: First we positioned ourselves through our theoretical references. We brought in class our favorite books, the ones that best reflect our theoretical thinking. The second step already included the formation of our first five patterns. For most of us, these were directly related to our references and exposed quite clearly our academic background, our cultural origins and research interests. At this early stage we already tried to position our patterns in a common matrix indicating the scale of the patterns and how abstract or concrete they were. For me, this was a self-cognition process. My design and theoretical thinking was more positioned to broad and abstract concepts than simple and concrete solutions.

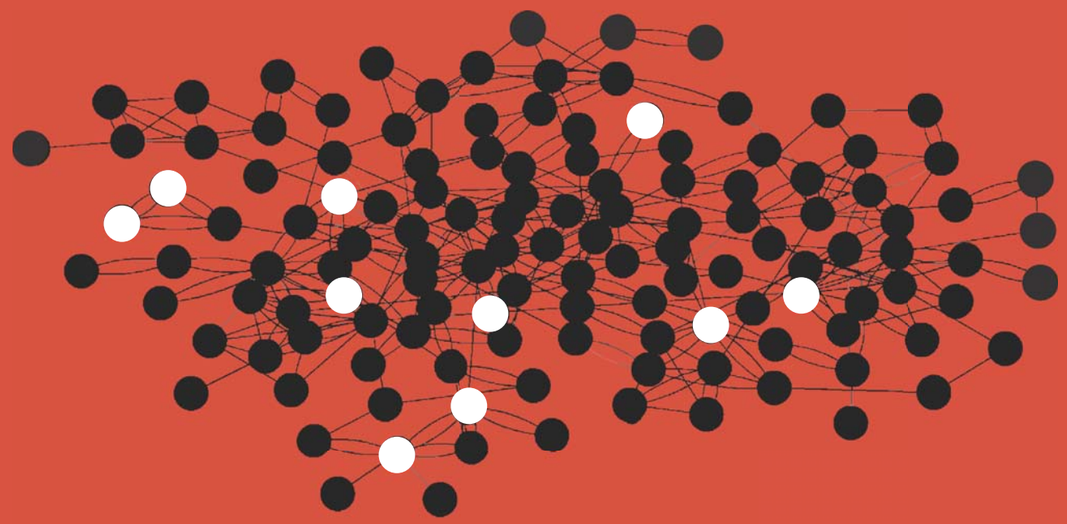
The third step of the process was the composition of five more patterns; these were related to our studio design. When brought all together, it was quite surprising to see that each one of us had a very different perspective on a quite specific issue. Indeed, although water management was a bridging concept, however the scale and the tools that each one of us was researching on would vary consistently. In this frame, the fourth and last part of the course was the most interesting and promising as well:

"Finding the enriching combinations". We were asked to read critically and comment on each other's patterns but also to "negotiate" on them; find the unnecessary ones, refine the ones that present broad similarities towards more accurate notions. Finally enrich our patterns with the references of other patterns- position ourselves in the context of our group work.

I found this concept very interesting and promising. I was quite delighted getting feedback from other people's view and discussing the notions that until then I was working and developing by myself. Furthermore, I found myself being influenced and inspired by other students' patterns. Some of them had come up with notions that were pretty new to me or very much contributing to my own research. For example Katherine's patterns of "value capture [77]" and "concept pitching [78]" were very much enlightening and helpful regarding planning and engaging of different actors in the design process.

However, I feel that I would be even more benefited from this process if it would also be framed in a version of an intense workshop of negotiation among different notions that is constantly supervised by one or more leaders. I believe that orchestrating this process in a more systematic and methodical way would lead to a more concrete outcome.

Finally, reflecting on the matrixes produced for the classification of the patterns, these helped me be more cognitive about my approach: I found myself to incline more towards notions regarding a methodology and "a way of doing", while some of my patterns could be regarded as quite conceptual or even "philosophical" . Reading the final matrix composed by the software Quadrigam, although it gave me an impression of some density of connections among specific types of patterns, however the quality that was most evident was that of a -yet not easy to interpret- complexity: "complex relations between simple rules".



KS
Katherine Sundermann

Over the course of a semester, we have pinpointed the theories, methodologies, ideas and concrete objects that we find most important and use when we design, and translated them into patterns. We then refined these patterns, both through critical self-reflection and though feedback from others, especially from our tutor Machiel van Dorst. During this process we also related our patterns to others in our class, revealing a complex web of relations between patterns. We created a series of matrices in which to position our patterns and as a consequence we were able to position ourselves as designers within a complex professional field.

For me, the most helpful aspect of creating patterns was being able to crystalise what it is that you are really passionate about. I think all designers keep close to them a handful of concepts and ways of doing that they find important and use as they design or are working towards using in the future. Four of my patterns Urban Rules [75], Value Capture [77], Crowdsourcing [72] and Substantive Modelling [73] are closely related to each other. These patterns form the basis of what I am interested in researching in the future and will be helpful in formulating what I will focus on for my final thesis.

While we had some opportunity to reflect and refine other student's patterns, this was not a large part of the process. Most feedback came from Machiel, and from students refining their own work by making it clearer and providing more detail, especially strengthening to their concrete patterns with theoretical backup.

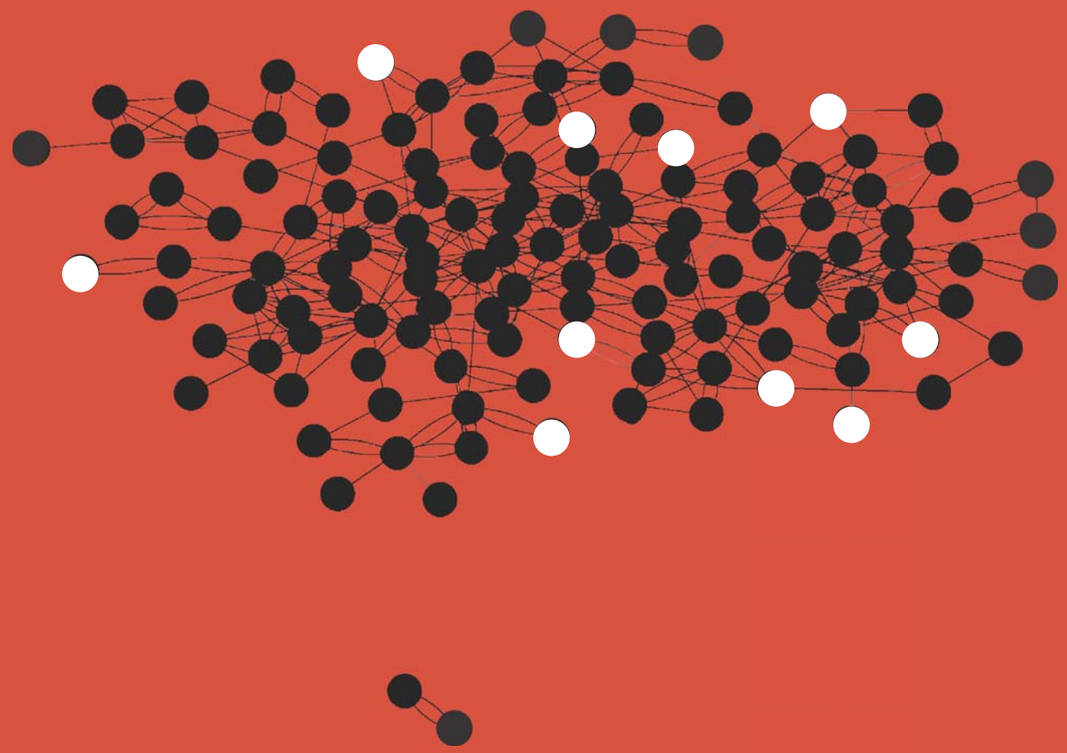
Once we had read and linked our patterns to those of other students we could begin to see a complex network of relations and position our patterns within a larger system. Some negotiation took place, with Antonio Sanna and I negotiating our patterns Float means flexibility [76] and Floating public spaces [87]. These patterns were very similar so we combined them into a single pattern Floating public spaces and buildings [76&87].

In another more complex example, I had a pattern called Grass in public spaces [74] which looked at the role grass can play in cooling cities while Andrea Überbacher had Cool the city [46] which took a broader look at dealing with heat island effect. We decided to combine these patterns and I would focus instead on Green roofs [74], another way to deal with heat island affect that she hadn't mentioned. As it happens, when I discussed this pattern with Machiel he suggested that dealing with heat island effect was not the most important reason for introducing green roofs, and I should focus instead on the enriching combination of benefits they provide. This was an example of an evolving pattern that responded to the complexities of the pattern field.

After the patterns had been finalised we then had time to place them in a series of matricies. The first matrix ordered patterns from concrete to abstract on one axis and from small scale to large scale on the other. The four rules which I am most interested in all fell into the large scale and abstract part of the graph, which seems to show that I have an interest in planning concepts. In the second matrix we ordered our patterns in terms of which field of study was most prevalent in our pattern, divided into socio-economic, technology, environmental and philosophy. Most of my patterns seemed to be related to socio-economic issues. In the third matrix we group the patterns by typology: methodology or tool, framing concept or physical structure. Most of my patterns fell within methodology or framing concept, and this was consistent with the rest of the class with framing concept being the most popular choice. This implies that there was a bias in the class towards concepts rather than concrete tools.

The final matrix was the most eagerly anticipated (for me anyway). In this matrix we used the online software Quadrigam to draw out the network formed from the relations students had made between their patterns and others. I had expected that this would create more accurate groupings of patterns as students had manually connected their pattern to others. However the matrix generated is too complicated to read easily. Perhaps if it was represented in three dimensions we could see certain conceptual groupings more clearly.

Patterns have many applications, such as guiding decision making in a multi-actor setting, serving as inspiration for designers or helping turn research findings into spatial designs. For me the process of creating patterns was most helpful to crystalise my interests and to position myself as a designer within a complex professional field.



AS
Antonio Sanna

During the last theory course we have been challenged to create and then develop a set of ten patterns. This “experimental” theory course challenged us to reflect on theories according to practical implications which led to the creation of a set of ten patterns for each person. It has been very important the whole process to create patterns, go back and forth through feedback and suggestions led to a better understanding of the concept as it helped to synthesize a thought which otherwise would appears more as a cloud than a concrete written pattern with a standard form.

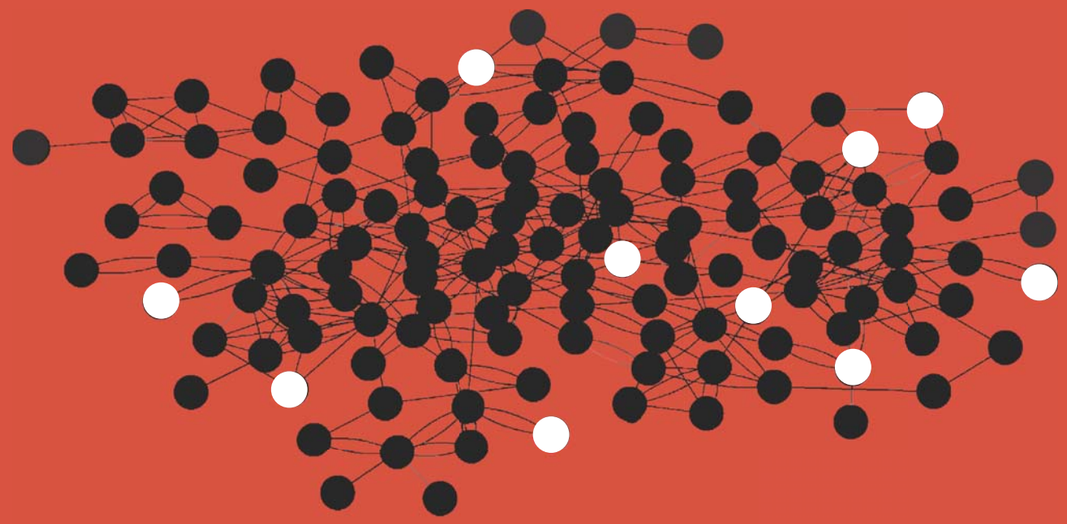
In the beginning our teacher Machiel asked to develop the first five patterns without any particular constraint, thus I collected ideas among the previous semester experience and from my “personal sack”, the only framework was on the one hand the scale(from the very small design event to the big landscape intervention) and on the other hand was the level of abstractness.

Initially I did not follow a rational method but it has been important to develop five thought which I was very keen to study. Not having a limit helped to grasp the concept of pattern with something I was curious to study and “put on paper”. My Light Pattern[81] i.e. was related to an abstract and small-scale concept which always fascinated me: how light in its pure abstractness can affect the social behavior is a general term which has not a particular theory behind it, therefore I focused on a particular perspective of the concept which just regards the light that come out from a place and its power to spread the vibrancy, the worm atmosphere in the outside. That what also the main procedure of the first five patterns. Also important were the relations which grow in a parallel way between different theories and how their practical implications in the end differ to lead to a different conclusion. Steps [82] and City’s artifacts[84] are mainly related upon the same concept.

Then we had to analyze the patterns from the colleagues of the previous year and I noticed there that there is a sort of common aura among all the patterns which explain that somehow a group of people is spontaneously going towards a very general direction and method because of social relations and different personal and group experiences. In the meantime we were asked to start with the last five pattern with the constraint they were to be related to the studio of the current semester . This narrowed the possibilities of the topic’s selection and forced the whole group of student to have a common ground where to start, it has been interesting how even if the starting point was kind of the same , we came up with different practical implications having though similar hypothesis. Personally my project, as many, was related to water and in particular on tidal effect and possibilities of flooding which basically led me and other people to think about system related on the usage of the space, i.e. my Float means Flexibility[76] and Floating public spaces [87] from Katherine were pretty much linked on both hypothesis and practical implications so we gathered them in order to embed the complexity of both of them in one broader pattern.

This process was similar for many of my colleagues and its related on our common experience within this academic year as in example for me and Katherine our excursion in Hamburg were we learned a lot about floating solution in open water spaces (not controlled by dam or dykes).

After some revisiting of the patterns we made as conclusion different set of matrix, one regards the same division of abstractness and scale and I noticed that I got lot of patterns in the abstract-small scale side, which is not what I expected because in the beginning I positioned myself in the field of concrete-small scale. Thus I found that I'm interested in having a very abstract backup theory which leads to a concrete implication whether it lay in the small scale or in big one. The second matrix regarded a division between different field as socio economic, technology, environment and philosophy, there I found as expected to have a keen interest in how an hypothesis can lead to a technological solution. Same thing for the third matrix which express in a different way relations between different fields.
As a conclusion I would rather refer to the whole patterns process than the result itself, I found it helpful to organize thought in a practical way, it has been constructing an organized theory out of a clouds of ideas which otherwise would not be possible to link with other ideas thus patterns.



AD
Aditya Deshmukh

In 1977 the concept of design patterns was first introduced by Christpher Alexander as a way to think about the architectural elements of buildings and other urban structures. A design pattern was initially described as a generalized, reusable design element which can be used to solve recurring problems. This semester, in the course of theory we were asked to create similar patterns reflecting our design principles' and theory. The output of all the patterns was conceived as field/matrix in which we would create connections by identifying each of our patterns by its nature being abstruse or concrete.

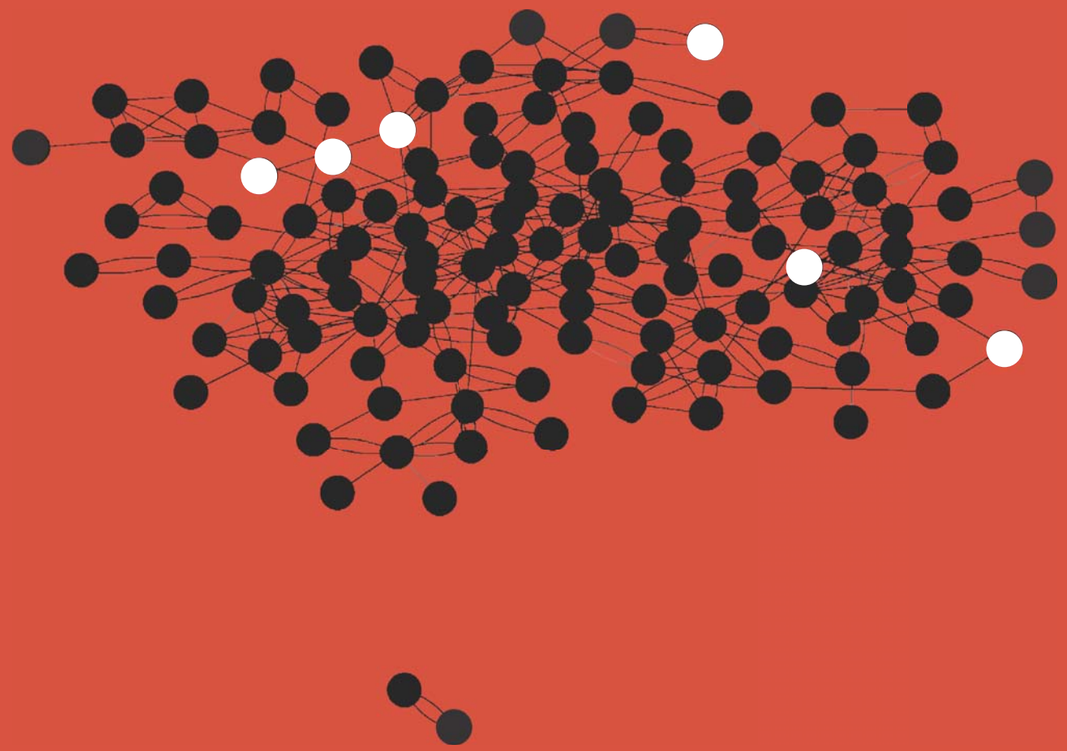
During the course introduction I was a bit cynical about the notion of complexity by patterns, as I was new to this concept. But it was clear only after when, our professor Machiel van Dorst channelled us to the method of creating patterns using our own design vocabulary. Here my previous education in architecture facilitated me to create first set of patterns, which were closely related to building design an public spaces like 'Role of pavements in public spaces'or 'Glass is green' and 'Courtyards'. But on the other hand my first semester education in urbanism had also started to show its influence, resulting into a pattern of 'Transit oriented development'.

The next five set of patterns were more related to our current delta studio project. To create patterns here was easier for me, as it is a product of doing research by design, which helped in both my studio project as well as creating patterns by formulating new ideas on contemporary water management issues. This process of making patterns not only strengthened my theoretical backup, but also gave me an insight of the relation between theory and practice, especially after reading a research paper by Hans Harms: Changes on the waterfront – transforming the harbour areas. Also having a censorious look at the patterns created by last year students, helped me in refining my own patterns in terms of relation between hypothesis and theoretical backup, practical implications and vice versa.

Once completing all the patterns, complexity of the process started in its true sense, by relating our patterns to patterns done by other students. Relations with some of the patterns were straight forward and coherent, but for some finding a co-relation was complicated. But these relations become clear as patterns with a subject can be related to each other in a pattern filed. Relations with different subjects could also be shown here. Though the matrix is just a representation of many patterns in a field, it also has the ability to position each idea in the conceptual framework.

Although at the start, I was perplexed about the process of making patterns and its complexity in co-relating with others taught me a lot in the end. I would describe this process as 'learning by doing'. Doing patterns not only discovers your interest in specific fields of design typology, but also show a whole new way of looking at the field of design by the patterns done by others. Where as a designer you will also work at different scales and put together all scales in your design, for example; while designing a public square you will have to think of both, connecting those spaces to the other parts of the city, as well as minute details of the square in terms types of pavements used in the square.

In the end I would like to cease by saying that, working with patterns opens a wide collection of ideas and experiences. Archived patterns could be an open book and individual patterns should be used as a tool in the actual design stages, which will directly or indirectly lead in creation of more new patterns for further research and in return enhance the vitality of a city life today, as well as in future. Thus it is an unending process.



RG
Reshu Gupta

How do settlement patterns evolve? How do they affect the future developments? How should they affect the development of the city and its constituent parts – its blocks, streets, public open spaces and landmarks? To unfold the theories that are applicable to these highly complex systems – the cities, in most part of the theories for urban design course, we engaged into making patterns.

The first patterns were to come from our personal interests. To produce these, I mostly referred books of authors I revere and few academic papers from the current course. Other patterns that followed were in correspondence to the current design studio. What came to our surprise was that, when the draft versions of all patterns were exchanged with each other and reflected upon, not many overlaps were established. Thus, even though in the present we shared a common experience at the studio, there is a likelihood of a greater influence of our contextual backgrounds which resulted in a variety of patterns.

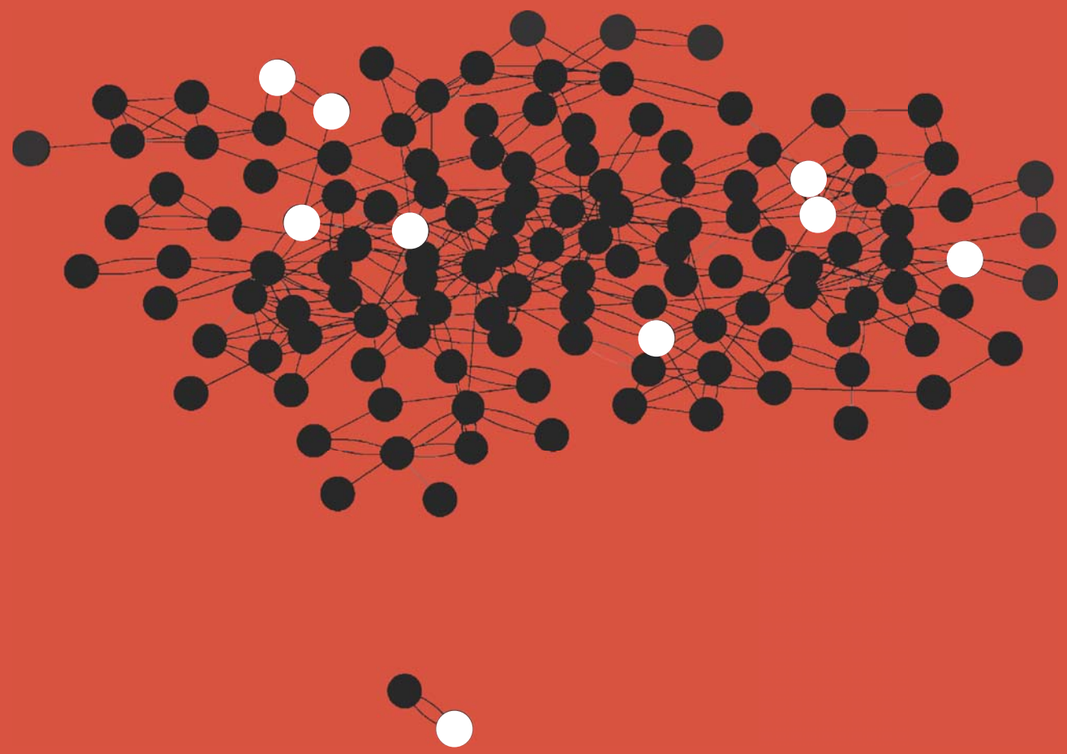
The experiment of making the patterns created opportunities for the exchange of theories and ideas in urban design among us. This implied that the pattern tool facilitated dialogue between different participants in the design field. Hence it could be an effective tool especially in the practical world such as ours which is a multidisciplinary field. Moreover, the pattern methodology enables a streamlined negotiation with financers or municipalities, which may do great benefits to the city environment towards which, we really want to contribute.

The structure of the pattern is succinct - a striking tittle, a clear hypothesis, a theoretical background that explores the renowned planners and theories, the practical implications and of course, the visuals for designers. At a personal level, this format made it easy to extract from the vast source of available academic knowledge on the subject. It allowed an investigation in the way urban areas function and how spatial design and its each element relate. The final result to the experiment was a set of collection of concepts in urban design that I am passionate about.

Most of my patterns categorize under social and environmental columns. From all my patterns, pattern 101 – Towards a hospitable urban habitat & pattern 106 – An emerging discourse, were the only ones, which relate to each other. While I referred two sets of papers for the pattern 104 – Community networks for low income groups, revealing aspect was, the papers shared similar theories, but the design implementations were very contradictory. In this situation, Machiel suggested me to pick only one of the papers to make my own pattern. This situation clearly made a point. Design solutions cannot be as much generic and before implementing a solution from one site onto the other, a thorough analysis is must. This is how I learned how patterns are bound to their locations.

As one proceeds, the pattern language applies to some complex activity – matrix, a network of pattern. When laid in it, either from abstract to concrete, or in different social, economic, environmental, technological, and philosophical sections, or in the frame work from where it originates, the complexity of urban design is sensed again. There is no one solution to this complexity. In the pattern network, the patterns call upon one another. They help us remember insights and knowledge about design; they contain links from one pattern to another. When trying to apply one pattern in a project, a designer is pushed to other patterns that are considered helpful in its context.

After the complete exercise, we didn't find a solution for all relations between patterns, although we recognized, every designer has his or her own vocabulary, which sometimes can be combined and some other times the differences be enlarged to create a start to some innovations in the design world. Thus the end result is a location specific design tool.



GC
Germana Câmara

From the beginning of the theory course two main ideas caught my attention. The first one is that "nothing is so practical as a good theory" and the second is that "knowledge is common property". With that in mind we were asked to develop a patterns book, a compilation of design practices with a theoretical backup that could be applicable by others, reflecting on the concept of complexity.

At first it was quite difficult to understand the task and the real implications of it. The idea of complexity was to me still abstract while the patterns could be very concrete. The first five patterns we were asked to create were based on our own background, our repertoire, based on the theory we are most familiar with since we started our carriers on the architecture and urbanism field. For me, the first five patterns were the easiest ones to make. I think most of them are very personal and relate very much with my context, being from Brazil and having my studies background built there.

My first pattern [111] Farming the City, which relates with the literature I discovered in the previous semester of the EMU programme, a concept discussed and used on the last design studio as well. Apart from that first one, the others four patterns are based on my previous repertoire: [112] Reachable Nature; [113] Collective Self-esteem; [114] Climate as a design tool and [115] Lively Favela. The main arguments behind them are based on the environment and social inequality. Two topics immensely related to the Brazilian context but that can be translated to many other places around the world, and that became clear within the process of making and thinking about those patterns in a different context, trying to look at them from another point of view and relate them to the other students' patterns.

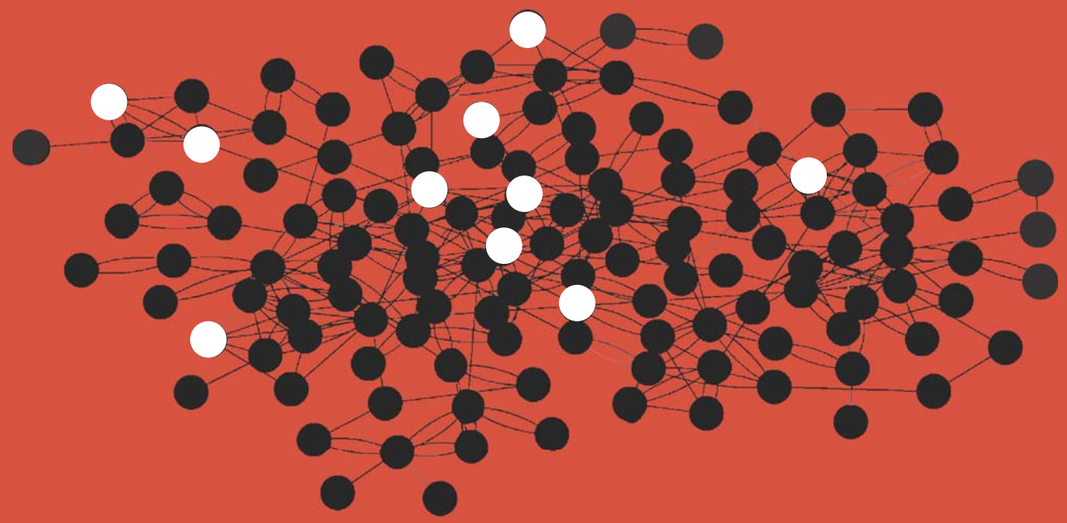
In a second moment we start a revision of each others' patterns as well as of the previous semester students' patterns. The discussion around all the patterns and the knowledge transfer we could experience was a very important moment of the process. For me the most interesting thing was to realise how we could come across such different patterns and at the same time many others similar to ours. It was very important also, to have others discussing about your patterns and giving fundamental contributions to them.

After finishing the review of the first set of five patterns, we were ask to make five more patterns, but they should be related to what we were learning and producing in the semester design studio. Personally, this last set of patterns were much more difficult to create, as for me the literature was still not entirely mastered. In the first set I started from the concepts and theory that I was more interested in, while for the final five patterns I started from the practical implications I was addressing in my studio design and just after I could connect them to a theoretical backup. Perhaps for that reason the last set end up being more concrete: [116] Dynamic Coast, [39+117] Adaptive Landscape of the Dike, [118] Paradise Ownership, [119] Climb the dike and enjoy the ocean! and [120] From Fear to Enchantment.

There was an overlap with one of my patterns [117] Adaptive Dike and Jenya Bobkova's [39] Landscape the Dike pattern. We combine both patterns in one as they had the same concept and doing so they become more complete and with more references. My last pattern [120] From Fear to Enchantment remains without relation to any other pattern, although the topic is related to the design studio, I couldn't find a close relation to any other pattern as its hypothesis is quite abstract and addresses a change of mind set that will only have practical implications in a long term. Thus, I found important to keep this pattern because it is direct connect to what I intend to discuss on my design studio project.

Through the whole process of making this patterns book what was more interesting to me was to see my work and what kind of choices I have made, from the topics to discuss in the patterns, concepts, literature used, in which the others patterns I was most interested, and so on. It was a very interesting to get in contact with my repertoire and my interests. And at the same time getting new knowledge from the others repertoire and seeing all this related in a complex matrix.

A pattern book can be a knowledge container if the designer is also critical about it and learn from what are on it, instead of simply applying the patterns on practice. Cities are complex systems and a collective understand of them is fundamental.



MN
Mieke Nagels

Patterns have the ability to express what we, as designer, think is important or crucial in creating a city that is based upon sustainable development. This container terminology is frequently referred to in several theories and concepts. Thus implementations can vary from climate adaptations to more user based planning. As a consequence, a pattern tries to link the theory with practice by directly contextualizing theoretical concepts into design guidelines. In specific, the pattern's aim should be a suggestion to the designer or the student in a co-design process. Thus the patterns are becoming a design tool based upon a theory and your own vocabulary.

Expectations?

The concept of pattern making was quite unfamiliar and unlike any regular assignment I have ever made. Therefore the purpose of the pattern book seemed unclear and vague. Moreover, beginning to formulate patterns out of your experiences was quite challenging. Having a critical look at your own vocabulary is easy but describing what you feel is important and should be valued, is much harder. I believe design experience is very valuable in constructing patterns. It provides more insight to a person's 'design signature' and therefore I believe it is easier to select and describe the key design factors of your patterns. Since I lack such a valuable experience, it was hard to describe my own vocabulary.

What was your method?

The five first patterns are based upon my vocabulary and more specifically about theories I know and projects I believe are fascinating. Compared to the last five that are related to the Delta studio, I struggled the most with these first five. Since they were inspired by theories, it was hard to implement it with a suitable practical implication. Others, like '122 Streetstyle', are related to exiting projects so in that case it was more difficult to generalise the specific design concepts. As a result the pattern making process was mostly about improving the formulation, doubting the hypothesis and in the end wondering if they express a clear and usable idea. Overall, a pattern must add a quality to the city so stating that "colors are nice" does not end up.

What about the links between others?

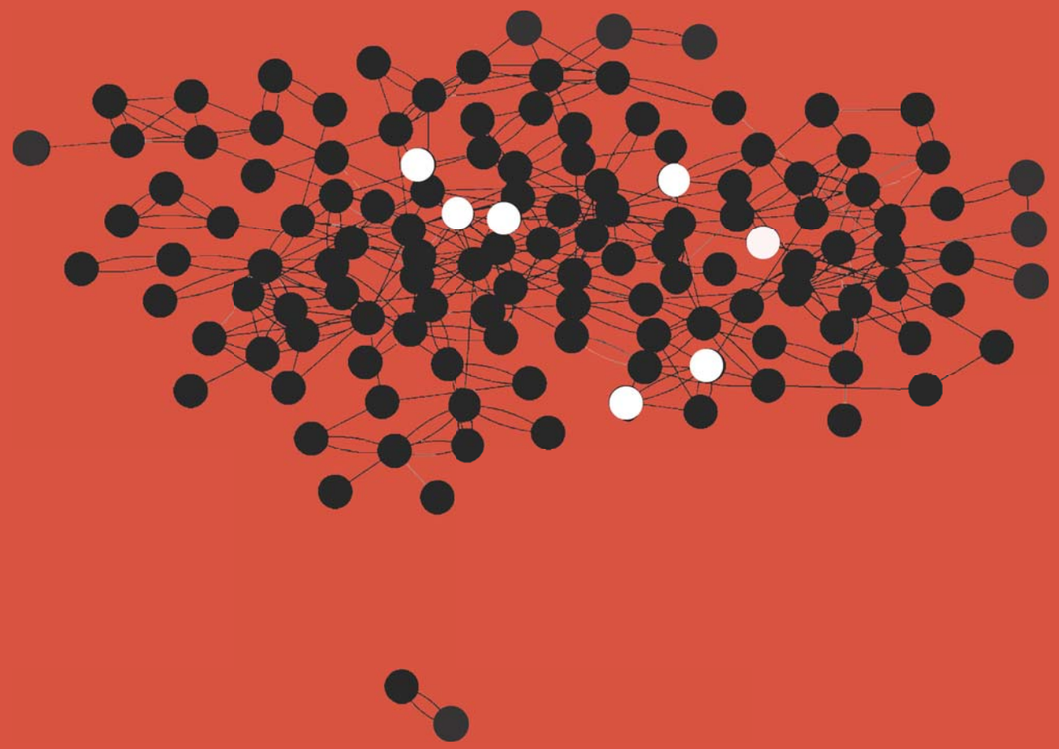
The first five patterns are based upon elements of our own vocabulary - therefore the challenge should be to find the common ground between them. Instead relationships were easily made, probably because we are with so many, that there is always a connection, a similar idea or a comparable phrasing between the patterns. Question is if there is a limit to complexity or in other words a maximum of patterns in a matrix?
Once a relation between patterns was found, I reflected on my own patterns in order to make them more compatible. This was done by phrasing the hypothesis more general then someone else, by taking a look at the same topic from a different perspective or simply by specifying my own patterns so that overlap did not occur. Moreover the links with patterns, between my ones as well as with others, do have a specific direction too.
After completing the 10 patterns it is striking how they actually do say something of myself as a designer. Although the best interrelation is between 121 and 125, my other patterns are linked because of their common point of view. In general they seem to focus on (re-)development and infrastructure with a small influence of public space as well.

What is the best way to learn patterns?

In my experience, the process of pattern making was a struggle but in the end I have learned what patterns are about by doing. This meaning on the one hand writing my owns and on the other hand reading others, especially from this year.
Ones all the patterns are compared it is interesting to see how something simple becomes complex as well as how everyone's language becomes more specific when reading a persons patterns and maybe that is the best lesson of this pattern booklet.

What was your experience along the way?

Although I was sceptical and confused during the beginning of the process, the result is very rewarding. Creating matrices and especially reading others is very educational. You become aware of your own interest and focus in a design. Moreover you are forced to think about and grasp the issues you consider crucial in an urban design. Personally it was a revelation since I have not reflected on my own work and my own interest in such a way.
Therefore it is impossible to say that my final 10 patterns are a complete compilation of what I consider vital and necessary in a design. As a result, the 10 patterns are a starting point in defining my own vocabulary rather then a finished end result.



HF
Hao Feng

I think the theory class is really useful. I learn a lot form the four processes—the writing process, the writing structure, the matrixs and the excel table.

First, in the first stage, we try to make 10 patterns by ourselves. In this process of coming up with the titles of the 10 pattern, I think I have a more clear reflection of my professional knowledge structure. I write 10 topics. Most of the topics I write are the topics which I think are interesting and are back of my head before I write them. So these topics somehow reflect my knowledge structure. Specifically, most of the topics are related to the landscape architecture. For example, these topics are Digital landscape video, A beautiful energy landscape, Landscape dynamic process, Productive landscape and so forth. Actually, at first, I did not realize my specific knowledge point. After I talk to my teacher and compare my topics with our people's, I realize my specific landscape knowledge point. I am happy that through writing these patterns I can know my specific interested point.

Second, the pattern is composed of two major parts, the theory background and practical implication. These combined two parts benefits me a lot. Sometimes when I write the topic, I just know the theory and I did not think about the practical implication before. However, the patterns enforce me to consider the practical part thing. After I consider the practical thing, I find I have a better understanding of the theory part, and I think this process help to know how to apply this theory to the practical thing which will actually guide and help my design career in future.

Third, in the final part, we made the connections of our patterns. And the final part is most important part of the whole class. We puzzled our patterns into 3 big tables. And we puzzled these patterns in the different principle in three different tables. For instance, in the first tables, we made the table according its abstractness and its scale. The horizontal axis is from concrete to abstract and the vertical axis is from small scale to big scale. After I put my patterns on the big table, I found that my patterns are mainly between the concrete and abstract on the horizontal axis and are between the small scale and middle scale. That also means my concentration is mainly on this area. I do not the topic around the abstract level and big scale. So maybe in the future study, I can hence the study in some more big scale and abstract level. That will help me perfect my knowledge field.

Also, we in the excel table, we also try to see the relationship of our patterns with our people's. It benefits me a lot. For instance, I have a pattern called intertidal movement. It discusses the intertidal zone is a dynamic zone. It is an important dynamic zone for the seaside ecology. And I find two connections of other people's patterns. One is the dynamic coast and another is the adaptive landscape of the dike. The Dynamic Coast says the coast water management should use the dynamic of the nature to structure the coastal area. In this pattern, the author says in order to keep the safety of some coastal line, some people build some obstacles to stop the tidal movement around the coastal line and the ecological environment is harmed by this. In the pattern of Adaptive Landscape of the Dike, the author discuss that adaptive dike ensures water safety and create softer barrier which can be designed as an urban structure with diverse functions. These three patterns have the different titles and different entry point to the problem. But they all focus on the intertidal zone's environment. I cut the question from a relatively overall point of view. And the second pattern cut into it from the coastal line. The third is from the soft dike view. So, as we can see, we cut into and discuss the same question from the three different view, and it broaden my thinking angles.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