



THE SELF ORGANISING CITY

How cities are put together

INTERNATIONAL

LECTIVES

tIP 04 | 07

EUR. STEPHEN MARSHALL

REPORT 24/25 11 11

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Deltametropolis Association is a broad public organisation that focuses on shaping sustainable development in Randstad Holland. The association brings together businesses, public interest groups, research institutions and governments. Deltametropolis Association enables and works towards creating a socially supported design of the Randstad metropolitan area, focused on welfare, prosperity and strengthening its international competitiveness.

Deltametropolis Association offers a platform for discussion: it creates the space to develop new ideas and critically discuss Randstad Holland outside the usual frameworks. It is a laboratory for prioritising innovative issues and for promoting the debate on the future of Randstad Holland. In this way, the association aims to promote new ideas on the development of Randstad Holland and to help apply these in everyday practice.

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REPORT TIP 04|07

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The International Perspectives

Deltametropolis Association, in collaboration with the universities of Randstad Holland has initiated several projects with the central theme: the Metropolitan Functions. In this programme, Deltametropolis Association researches how facilities and urban environments can help define the metropolitan atmosphere of Randstad Holland.

The International Perspectives (tIP) forms part of this programme on metropolitan functions. In this series, Deltametropolis Associations explores the importance of an international perspective when (re)developing facilities and urban environments in Randstad Holland. tIP is a public series of events which reflects on how facilities or activities transform an urban area into a metropolis. It consists of a series of 7 public lectures with inspirational international speakers, and 7 private expert meetings. The tIP results will lead to a final debate and a publication in the spring of 2012.

The series take place from September 2011 to March 2012. Each of the 7 lectures will take place on a Thursday evening, starting at 19.30. Every university in Randstad Holland will host a tIP, each focussing on a different specific theme. These themes are: Cultural Clusters, Social Network City, Flagship Developments, Self Organising City, Knowledge Clusters, International Organisations and Attractive City.

In each of the 7 lectures, an international speaker will present how facilities or activities are important for the development of a city or urban area. Following the lecture, representatives from the hosting University will give a reflection, applying its content to the Dutch context.

An expert meeting with selected academic, entrepreneurial and governmental guests will take place on the Friday following the lecture. The expert meeting will take a more in-depth look at the theme of the lecture, applying it to the case study. The guest speaker will then reflect on the research presented by the hosting university.

This is the report of the fourth lecture and expert meeting held at Erasmus University Rotterdam on the 24th and 25th of November, 2011. The theme for this tIP was Self Organising City and the guest speaker was Stephen Marshall

www.theInternationalPerspectives.nl

Introduction

Paul Gerretsen

This series of lectures, initiated by Deltametropolis Association, aims to answer a broad question on urbanity, namely: what produces it? Besides the presence of the needed hardware, infrastructures, visitors, parks, and open spaces, we believe some elements are still missing.

These lectures hope to kick start the process of formulating the future metropolitan development of Randstad Holland. The question is particularly relevant for the Netherlands as, although it is very internationally oriented, it lacks a strong, dense, central metropolitan area, which many other comparable economies do possess. Our search thus asks: can the Netherlands build on a metropolitan identity to create such a central metropolitan area? And what is needed to produce it? What functions, dimensions, collaborative formulations and elements are necessary to improve the existing centres? And where do all these functions come together? In short: how can large scale urban developments be constructed and put forward?

This lecture and expert meeting was hosted by Erasmus University Rotterdam (EUR), Cluster Governance of Complex Systems on the 24th and 25th of November, 2011. The guest speaker for the lecture was Stephen Marshall, Senior Lecturer in Transport Planning and Urban Design at the Barlett School of Planning, University College of London. In his book 'Cities, Design and Evolution' (2008), Stephen Marshall has researched how cities are put together: both in terms of how different parts are organised in relation to the whole, and how they are created or evolve over time. The book presents a new evolutionary perspective that recognises both the designed and organic nature of cities.

As our guest speaker, we asked him to reflect on how the cities in Randstad Holland develop as self organising systems. [How can these systems contribute to the growth of the urban agglomeration as a whole? What steps need to be taken to strengthen the self organising capacities of cities in networks? And how is the governance of the 21st century network city managed?](#)

In the expert meeting, Lasse Gerrits, Assistant Professor at the Department of Public Administration at Erasmus University Rotterdam, presented his research on urban systems, how they evolve and what meaning they (can) have in urban planning.

LASSE GERRITS



STEPHEN MARSHALL



Lecture

The Self Organising City: Implications for planning

Stephen Marshall

With a background in self organising principles and structures, Stephen Marshall reflected on a fundamental question for Randstad Holland, namely: how can we understand the self organising developments in Randstad Holland and what role do they play in a bigger whole?

His lecture was geared at theorising and unravelling the concept of the self organising city. By doing so, the aim was to bridge the gap between how we interpret conurbations and the concept of the self organising city, and to see what the urban planning implications are.

Cities and conurbations

In order to reflect on Randstad Holland, or any other comparative conurbation, it is important to think about what such a concept entails. The term 'conurbation' has several

meanings. It can, for example, be interpreted as something which has a specific physical presence and structure: a galaxy so to speak. Or, it can be defined as a more tenuous, arbitrary entity, which does not necessarily represent any explicit physical structure: e.g. a constellation which has no clear beginning or ending. Whatever way we choose to interpret the term will enormously influence the way in which we plan. Should we, for example, actively plan conurbations as large cities? A composite whole integrated in a super city for instance? Or should cities evolve naturally to eventually result in a conurbation? It could form out of a loose sprawl of individual settlements. Or, alternatively, conurbations form beyond these levels in a self organising manner? The answer to these questions will depend on the definition we choose to adopt, as well as the time and place of the conurbation.

The term 'conurbation' can be traced back to the founding father of town planning in the UK: Patrick Geddes (1854-1932). In his book 'Cities in evolution' (1915), he anticipated the conurbations of the future and the need for comprehensive foresight in the governance of these urban phenomena.

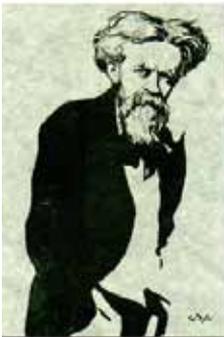
As a Professor of Lobotomy, Geddes viewed this concept from a biological perspective: he studied the intricate organisation, synergies and cooperation of different living things. His views on evolution differed to those of Darwin, in the sense that he emphasised cooperation rather than competition. Geddes believed that synergies increased as a continuum over time and that human beings were merely another species in the system. **He therefore perceived cities as the most complex form of evolved habitat and conurbations as the pinnacle of evolution.**



"Nobody can tell for certain
where the Randstad begins,
and where it ends."

(Anon., wikipedia)

GEDDES < > DARWIN



Geddes < > Darwin

Emphasis on **co-operation**
rather than **competition**



"From Darwinism to Planning - through Geddes and Back"
(S. Marshall & M. Batty, *Town & Country Planning*, Nov. 2009)

The meaning of urban agglomerations

In order to contemplate the meaning of conurbations and the role of self organisation, it is important to understand the rhetoric. The ‘SuperCity’ initiative in the North of England demonstrates this case well. This scheme aims to span 80 miles across the breadth of England, linking a series of cities by the M62, from Liverpool to Hull. It would ultimately blur city limits through the latest forms of transportation and thus form one big ‘SuperCity’.

This idea of linking these various cities resulted in a debate on the impact it would have on the traditional definition of what a city entails. However, one can be sceptical of this rhetoric, after all: does it really matter what name we give it? The entity already exists in any case and labelling it does not

change its existence. Arguably, rebranding such an area is just showmanship, and ultimately irrelevant as the cities in the area are already used beyond their borders anyway. Besides, does it really matter what the traditional definition of a city is? Supercity, after all, is not a radical new landscape, but one which has already self organised to form such an entity anyway. If this is the case, then the role of planning should be questioned.

Urban merges and the titles that these are given are common occurrences in the planning field. Different titles can affect their interpretation, however ultimately the same entity remains. London can be viewed as either one large urban conurbation, or as a polycentric metropolis with different specialisms in different areas. After all, London was originally formed out of three smaller cities (London city, Westminster and Southwark) which just

happened to be subsumed in a larger urban metropolis. Does the way we interpret them therefore change their existence? Similarly Glasgow and Edinburgh have faced many attempts to try and merge the two cities: to bring them together as one large city. The catchphrase “two cities, one metropolis” was adopted to increase the collaboration between the cities at a world scale, but little has come out of it. Partly because, like some cities in Randstad Holland, they were considered each others rivals, but especially because the cities did not feel the need for it. Although they were open to collaboration on certain aspects, such as improving infrastructure and transport, on other aspects, it simply did not work. Both Edinburgh and Glasgow were content with being two separate cities: they functioned well on their own and did not feel the need to become a single city. These cities, like

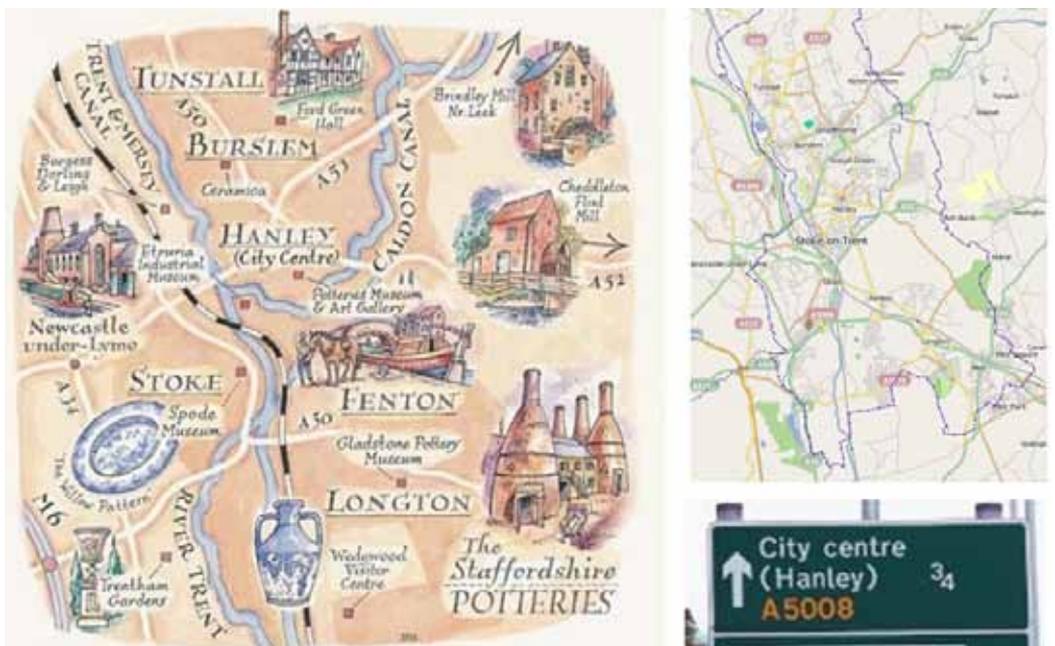
all cities, thus represent their uniqueness: they have their own identities and personalities as their people, places and approaches are different.

Ultimately, the question therefore is: **Is there a need for these synergies? Does it matter how we label them?** After all, these entities still exist with or without these labels. And what do these collaborative synergies actually represent?

The answer to the latter may be found when looking at settlement rankings and urban hierarchies. The Potteries, for example, used to be a mini conurbation formed of towns around the Stoke region in the UK. As the surrounding towns all had different functions, but too few facilities to really become a city, they merged to form one municipality. Hanley became the centre of the Potteries and this effectively changed the meaning of



WHATEVER HAPPENED TO HANLEY



Hanley. It became known as the city centre, as opposed to Hanley, and with time, the name Hanley is disappearing. A collective identity can therefore have an adverse impact on the singular identity of a city.

In terms of league tables, grouping cities can be beneficial however. The Potteries tends to soar up in league tables when the individual cities are seen as a collective, while as singular entities, they represent little significance. Similarly, Amsterdam or Rotterdam do not feature in a league table about EU population numbers, however when they are grouped together as Randstad Holland, they rank as the 5th most populated 'city'. This applies to all sorts of leagues tables: the passenger number ranking for airports will vary hugely if you look at specific London airport numbers versus a single figure for all London airports for example, or Rotterdam air-

port versus all airports in Randstad Holland. These groupings raise the question: what do these figures really represent? For which criteria does the sum matter, and where do the individual units matter?

For instance, in terms of catering for conferences, you could argue it matters mainly what the individual city has: if you host a conference in Glasgow, it will be irrelevant that Edinburgh has many nice hotels on offer, as you will only be interested in staying in Glasgow. On the other hand, if you want to establish a business world Headquarter, then it will be beneficial to be in an area which has many airports and transport links. A sum of all the London airports will therefore be more relevant and important.

In short, there are different things that cities can do to gain synergies between them. Some need more concerted effort in integrat-

ing the different cities and some groupings may be more significant than others. However, [these synergies are not, and should not, simply be about renaming cities and forming a single city: more can be done to really strengthen the integration between the different locations.](#)

Planning these conurbations, and having larger units as a whole, can have both positive and negative consequences. In a positive sense, it can create efficiency, increase collaboration, achieve a critical mass and create new high-level functionality which can enable the cities to compete at a higher level. Conversely, these new conurbations can also have negative impacts: the cost of planning can be very high, the benefits may not always be apparent and in order to be effective, the local sub-optimal effects need to be succeeded by the overall benefits. If not, it can lead to

problems of local over-specialisation, stifled ambition and possibly unwanted uses. If these get out of hand, they could threaten the local identity.

In summary, it is thus clear that a strategically planned larger grouping can have positive and negative outcomes. In order to be beneficial, the whole needs to be better than the separate parts. The drawbacks can be that parts may be locally sub-optimal sub-components of the larger whole. This needs to be overcome to be worthwhile, as there should be enough surplus in the holding parts. These points should be taken into consideration when planning new synergies and collaborative forms and can have resonance for Randstad Holland.

LONDON



GLASGOW – EDINBURGH



“Collaborating to Compete”

“Two cities, one metropolis”

– Terry Farrell

Self organisation as an alternative to strategic planning

An alternative to strategic planning may be self organisation. But can different semi-autonomous cities, all with their own individual agents, requirements and wants, really self organise? And what does the term actually mean?

Self organisation can best be explained, and visualised, in terms of nature: *it is the formation of natural patterns which are in some way created by the action of things smaller than themselves*. It is the natural arrangement of a combination of cells or pigments at the microscopic level that together give rise to the formation of a spontaneous pattern at the next higher level. Natural examples may include beehives, termite mounds and wasp nests. These actions may be completely oblivious the overall pattern

they are creating, and it may look organised, but it came about spontaneously through various different levels. This therefore renders it as self organised.

In terms of cities and conurbations, self organisation can be a complex term to comprehend. After all, self organisation is more than something which is generated by many individuals doing their own thing. It could be, but this oversimplified definition would imply that all cities are self organised. Likewise, defining self organisation as any developments distinguished from planning is also not sufficient, as all planned cities can be seen as 'organised' in some way or other.

This ultimately begs the question: what happens if you leave cities to their own devices? And does self organisation always lead to positive outcomes? In 2000, Bill Rankin carried out a cartographic study on racial / eth-

nic self-identification in several cities in the USA. The cartographs revealed that some cities, like Detroit and Chicago, were highly segregated by race and ethnicity.

Although these can be interpreted as self organised patterns (the locations where people choose to live are not defined for them and people make their own individual choices to live in these places), it raises several questions. Is this degree of homogeneity good? Should planners encourage or discourage it? And who should make these decisions? Planners? Or the people themselves?

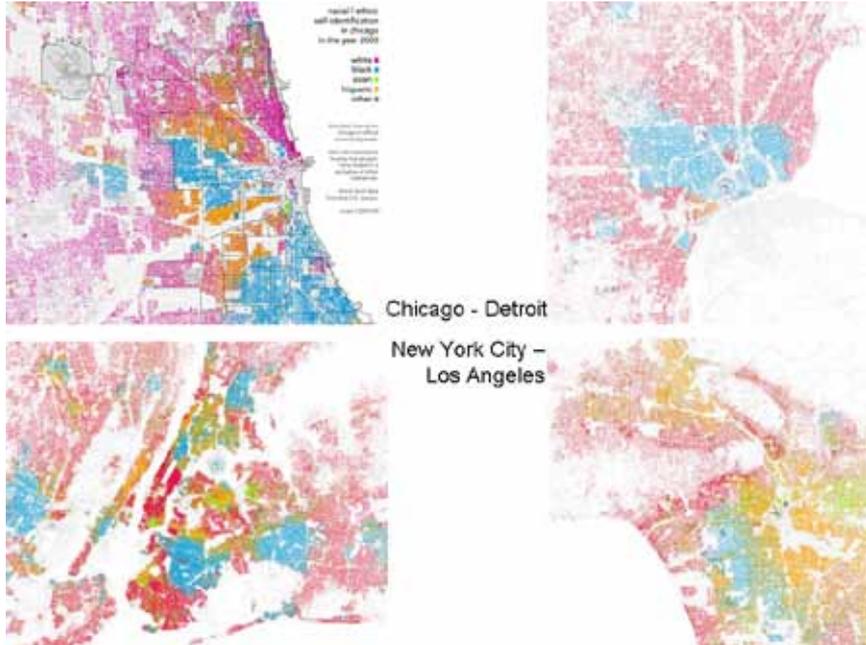
The example emphasises that self organisation is unpredictable: you never know what will happen and the outcome is not always ideal. Although self organisation can have many positive outcomes as opposed to top-down planning (it can stimulate local autonomy and brings flexibility, as you don't

necessarily need to know what the final, optimal form of a city is), it can also have adverse outcomes. In this case, it does not take much to tip over a mild preference for an area in to a ghetto effect. Although each person is making their own decision, an undesirable polarised pattern can emerge and this is a risk when cities are left to their own devices. Self organisation, in this sense, can give rise to outcomes no one expects or wants.

Implications for planning

Applying the concept of self organisation in urban planning encompasses changes in the present-day planning approach. Is it even possible to adopt such a concept? And if so, how? After all, self organisation is more than simply saying "let the city self organise": some degree of planning is still involved, however, it is different to fully coordinated

A TAXONOMY OF TRANSITIONS



NYC – ORDER THROUGH CODING



planning in the traditional sense.

Self organisation can, for instance, be framed in a way that is more targeted, i.e. self organisation where the overall idea is anticipated, but where the process is left to develop independently. In this sense, there is an aim, but the process generates the patterns by itself. The scale of intention is very important in this process, as targets and aims will be different at a conurbation scale to a local scale.

In New York, this type of process has developed through urban codes. Here particular codes are set to develop the city (e.g. the minimum angles at which buildings should be constructed in order to allow for light permeation), but these do not specify what the overall city should look like. Similarly, following the London fire in 1666, urban codes were put in place as opposed to a Masterplan.

These codes helped specify the elements and building dimensions (e.g. street types, building heights, types of material etc), that gave the resulting city a certain degree of order and functionality, without stipulating an exact end vision or design. The town of Seaside is also an example where the developments were organised along certain codes (e.g. the relationship between buildings with yards, frontage, street and various other permutations), but where the process was left to develop by itself, resulting in a settlement with a great deal of order.

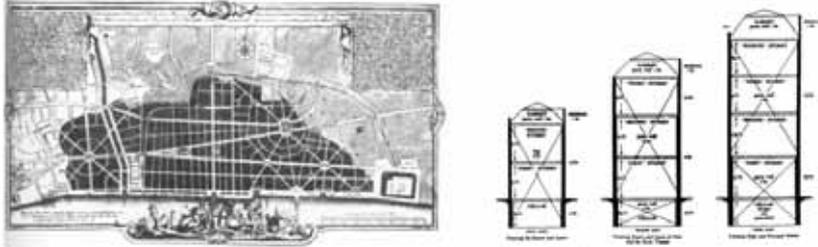
Urban codes may not necessarily be the answer to large urban strategic issues, but they open up interesting ways of thinking about conurbation planning as a whole. These codes offer an alternative form of planning, wherein certain aspects of the process are controlled, whilst the final urban form

is still indefinite. The exact shape and size of the city may therefore not yet be known, but the codes will ensure that the overall outcome will be agreeable. In this context, urban planning could establish some type of coding which formulates local rules and elements that could help create this form of targeted self organisation.

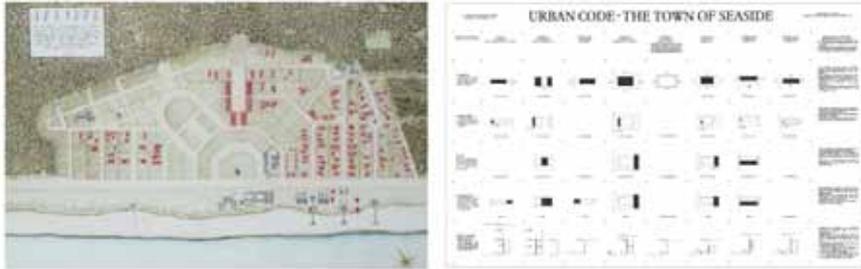
Green buffers could be established, for example as a local rule, which, when applied in the overall fabric of the conurbation, exists at a large urban scale. The green buffers are therefore not realised through country-wide strategic planning, but, like beehive cells or cells in termite mounds, by regulation through the application of the local rule. Once more, however, it is important to stress the importance of how we define the urban form as this will influence the way we plan it.

Whether we define a conurbation simply as a large built up area, an integrated, all-encompassing 'SuperCity' or as some higher level of organisation with a clear aim: we should plan them accordingly. Similarly, if we define it as some form of higher organisation without a clear aim, we should plan it as such, for which self organisation may be an appropriate solution and approach.

In terms of conurbation planning, it is important to ensure the correct visions are aimed for. The units of planning will depend on the way in which the conurbation is interpreted. If a conurbation is merely seen as bits and pieces of settlements you can plan at a city, town or village level. If the conurbation is seen as larger than just a city, then you could apply a larger conurbation planning.

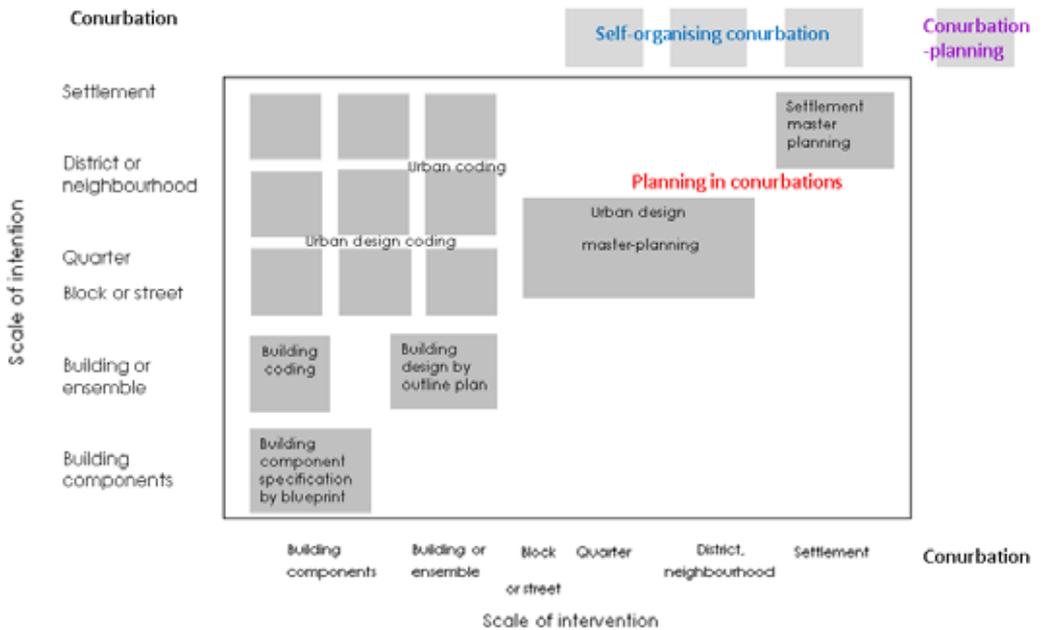


London: code as alternative to plan



Seaside: plan and code working together

COULD CODING BE EXTENDED UP TO SETTLEMENT SCALE?



On the other hand, conurbation planning could be at another level above that, where a more regional scale is encompassed. In principle, you could map all these type of scales in such a way that you could understand that conurbation planning means more than just having a conurbation vision.

Reflections

The lecture highlighted the advantages and disadvantages of both planning and self organisation. It made clear that although self organisation may offer an alternative to current urban planning practices, it is not the panacea. Self organisation does not provide the solution to everything and like planning, it has different variations and types. An 'intermediate' alternative may also be targeted self organisation, as it provides encouragement and a stimulus for self organisation

with a future intention by means of setting some rules. These can lead to larger scale outcomes and may come in the form of codes. If this is the case, however, certain questions may be raised regarding the types of codes in relation to the urban scale. For example, in the case of introducing green buffers, they are essentially local solutions, however once they are spread across the whole region, these become part of the urban fabric of the entire conurbation.

Besides the type of codes, it is also important to question how a noble and desirable outcome can be ensured. This is an inherent problem with urbanism, as it is difficult to guarantee a positive result. Urbanism is, after all, a never ending experiment in which the outcome is never known. For now, the best available options may be through simulation or looking at comparative historical

cases to try and understand the possible outcomes and what patterns can lead to viable solutions.

Lastly, it is important to remember that cities evolved from things which previously weren't cities, and they may evolve into something new in the future which aren't cities. So maybe we shouldn't be too particular about what we define as a city, or as a conurbation: the world is now so intrinsically connected and interwoven with people commuting, travelling, living and communicating across borders, through the internet and phone technology: maybe it is therefore the processes and patterns behind these formations we should be focussing on.

Likewise, our attention should be placed primarily on getting the local stuff right: we should focus on the details and ensure that

local places work and are desirable. If we get this right, then it really doesn't matter what we define as a 'conurbation' or as a 'city'.

Reactions

Various questions arose in the lecture, which had an audience of over 80 people. There was much concern for the future of urban planning. Currently, the Netherlands, and many other countries, are experiencing shrinking populations in regions and nationwide. What will this mean for those conurbations experiencing a loss? Does it mean we simply have a less dense conurbation? Or does the conurbation break down into what it was previously, i.e. separate smaller cities? Stephen Marshall's response was that he believes the latter is unlikely to happen. Although (the same) shops may not return after the recession, the high street will still remain, though probably with different functions. As long as people maintain a similar lifestyle, in terms of travelling and commut-

ing, then returning to the previous state of separate smaller cities is unlikely to happen.

Another audience member pointed out that it was surprising that networks were not mentioned throughout the lecture. The reason for this is because the research was primarily focussed on physical locations (the ground, street, gardens, buildings etc.), as opposed to trans-spatial phenomena, according to Marshall. These physical locations, as with organisms, are based on contiguous elements and services that support and permeate each other in a tightly packed formation. Networks, on the other hands, tend to span spaces in a different, more complex way: they can overlap simultaneously and beyond, across and through spaces that are physical as well as immaterial. Of course these networks exist and are important, as they underlie some of the actions that are happening

(e.g. economic networks, telecommunications, social networks, online shopping etc.), but this theme was simply not covered in this particular study.

In terms of coding, there was some confusion about what the meaning exactly entails. It was therefore emphasised that codes, in this context, refer to actual regulations, statutes and ordinances, not codes or programmes of behaviour. These codes may refer to a local setting (a house or garden for example), but if the local rule is applied at different levels throughout the city, then the code can really change the character of the city. **A code is therefore different to a plan: a code may instill a planners will, but it does not set a plan.** So, a code may, for example, state that it is forbidden to build a factory within a certain distance from a residential area in the next

x amount of years. The code does not state what the shape of the residential area should therefore be, it merely ensures that within the next x amount of years, there will not be a factory within a certain distance from the residential area. It is up to local processes, planners and the people themselves what shape and form the residential area will take on. The code, therefore, is about instilling a local rule of land use: it involves a degree of planning, but it is much more flexible and unpredictable than a plan. In the Netherlands, this is particularly evident in Osterwold, Almere

On the whole, the lecture offered a philosophical and theoretical reflection on self organisation and the urban planning discipline. The challenge for urban planning is ultimately about how we handle uncertainty.

After all, how can the planner know what the best distribution is? Or what the optimal urban pattern looks like? Essentially, there are simply things that we *do* know that work, and others that we *do not*. We can plan and control those that work, however, it is harder to do so for the larger issues which we are not sure about. History has only run once after all. With reference to Randstad Holland, it is difficult to assert that it is the optimal form of a conurbation. Or that Randstad Holland is better than a central city. We simply do not know and this can only be discovered through experience and trial and error. This does not, however, mean that we shouldn't make decisions. It simply means some things are more certain than others.

Disciplines such as engineering and physical systems allow for reasonable predictions to be made: e.g. deciding to build a high-speed

train between two cities as it will have many benefits. These benefits and the processes and materials such a project will entail are fairly predictable. On the other hand, making decisions about the optimal size and shape of a city are value judgements on the nature of the ideal society. These are thus not factual or based on scientific research. And above all, these are difficult to replicate.

Lastly, it is important to emphasise that making decisions and planning is ultimately about "making tomorrow better than it is today". This applies to all levels, even the local scale where deciding to maintain your street or garden will ultimately improve the current state. This point should not be forgotten when planning for the urban forms of the future.



Expert meeting

Self Organisation and the City

The International Perspectives (tIP) expert meeting forms the second part of the tIP series and aims to put the lecture from the previous day into practice through a select group of experts in the field. This article reflects on the fourth tIP expert meeting held on the 25th of November, in association with the Erasmus University in Rotterdam (EUR).

The expert meeting follows the lecture given by Stephen Marshall the day before on self organising cities and its meaning and potential in urban planning. This expert meeting looked more specifically at the possibilities for self organisation in the Netherlands, in order to discover whether it can offer a realistic alternative to some forms of planning for cities and larger conurbations like Randstad Holland.

Set up expert meeting

1. Presentations:
 - Lasse Gerrits (EUR) on Self Organisation and Human Behaviour
2. Initial Responses: Stephen Marshall and expert team.
3. Group reflection.
4. Conclusions.

tIP 04|07 Expert team

[Tim de Boer](#) – Secretary of the Urban Grant Programme, The Netherlands Architecture Fund

[David Dooghe](#) – Project Leader, Deltametropolis Association

[Paul Gerretsen](#) – Director, Deltametropolis Association

[Lasse Gerrits](#) – Assistant-professor, Erasmus University Rotterdam

[Inge Hartkoorn](#) – Reporter/coordinator, Deltametropolis Association and Stipo

[Hans Huurman](#) – Strategic Economic Advisor, Economic Development Board Rotterdam

[Stephen Marshall](#) – Senior Lecturer, Bartlett School of Planning, University college of London

[Annemiek Rijkenberg](#) – Independent Advisor on Urban Development

Self Organisation and Human Behaviour

In collaboration with Deltametropolis Association, this expert meeting was presented by Lasse Gerrits, assistant-professor of the Department of Public Administration at Erasmus University Rotterdam. In his view, human behaviour is the key in understanding how physical environments (and thus the city) develops. This expert meeting followed Stephen Marshall's lecture the previous day, which theorised urban systems, how they evolve and what meaning they (can) have in urban planning. It built on these reflections, with emphasis on the role that people play within urban systems. The premise was that the way in which people are organised and structures matter less than the actual process and the way in which people interact with each other.

The meeting kicked off with an exploratory exercise and discussion on defining self organisation. The group came up with several definitions and components of what the term entails. In short, **self organisation was interpreted as something which follows its own logic and rules, whether in growth or decline. This rule is solely based on whether the overall outcome is useful and beneficial for the organisation.** It is thus something which happens without steering: it is spontaneous and unplanned. In the words of Stephen Marshall, self organisation is “**the result of individual local actions which give rise to an overall pattern or order, or some kind of functional or non-functional regularity, where the overall pattern isn't anticipated by the agents that are creating it**”. These agents may appear to be organised, but in fact they are not: they can, for instance, be inanimate particles with no capacity for intentions. In the human context, these agents consist of individuals doing their own thing and forming an overall unplanned, unanticipated pattern.

An example of self organisation in the Dutch urban planning context is ‘Golf Resi-

dence Dronten’, a private property development that concerns mainly residential housing and a large golf course near Dronten. This development came about when the Association of Owners (VVE) made a deal with the municipality that, in return for tax exemption, they would develop and maintain the area. The municipality agreed and the VVE is now the owner of the development. The VVE is thus essentially free to form its own management and to establish its own rules. It is effectively a type of micro-society, which is also open to non-residents.

The idea of such a development is that residents can thus exercise a large degree of freedom: from the government and from bureaucratic processes. However, in reality, it created just that: an administration with an abundance of rules and regulations. The VVE would get together on a monthly basis, developing more and more rules: an ‘Association book of law’ so to speak. Ironically, the established rules now outnumber the rules that any government would implement.

So, although the inhabitants were given the freedom of potentially living in an ungoverned rule-free system, they created rules at their own accord. Whatever the reasons may have been for creating all these rules (be it to increase security, reduce uncertainty or to create a safe and reliable environment) the example essentially highlights the fact that **people, by nature, tend to self organise.**

In De Wolf and Holfvoet (2004), **self organisation** has been defined as “**a dynamical and adaptive processe where systems acquire and maintain structure themselves, without external control**”. It is thus a pattern where a system emerges without any superimposed steering.

The term itself is rooted primarily in natural science disciplines, however it has much significance for the social science field as well. It offers a different observation of society and urban planning in general: it questions the ability to steer the city from a centralised perspective. Although the city is primarily

governed through centralised steering, unexpected and unplanned patterns still emerge, regardless of this form of steering. Self organisation, in this context, can therefore be both a property of the urban system, as well as a property of organisations that deal with the urban system. The latter interpretation is what this expert meeting covered.

Self organisation and the city

The group was asked to discuss their views on the potential of self organisation in urban planning and the constraints it may face. There was a general consensus that self organisation can help revive a city: it reveals a more local perspective and enables a more accurate portrayal of what people really want. This essentially bottom-up process, can highlight bonds and interactions at the local scale and potentially shapes a more vibrant, exciting and lively city due to its spontaneous nature. Furthermore, self organisa-

tion allows for activities and the utilisation of areas that would normally not be in use, especially in (semi)public places and with multiple groups. This can create something new, which is challenging and different. If the pattern is open, it allows for autonomous growth and if people feel they are part of it, it can enhance a feeling of connectedness, responsibility, respect and care for a place.

On the other hand, self organisation also faces many constraints. Having too many rules and regulations, for instance, can hinder the growth as it may not be what everyone wants. Physical and social structures may prove to work against the natural growth and the fact that some people or linkages simply do not get along (naturally) can also form a barrier for self organisation. Lack of money is another potential large obstacle and the prospect of not having the possibility for funding can be a difficult deficiency to overcome. Besides these, other constraints

GOLF RESIDENCE DRONTEN



may be ownership discrepancies, severe regulations, overtaxing and the lack of investment power and political support.

Although rules can form a constraint to self organisation, they are necessary. Our society and culture is formed in a way as to avoid risks and uncertainty where possible. This has fashioned a system in which everything needs to be certain, defined and measured: rules are there to assign responsibility and accountability. This is not necessarily negative, however. Rules were initially put in place for positive gains: to prevent cruelty to children or to ensure health and safety measures for example. **The fact that rules exist should therefore not be the problem: they only present a problem if they are non-negotiable, irrespective of the place and situation and if we use them wrongly.**

The point therefore is: there are reasons why rules exist. We just need to find ways to work with(in) and between them to still achieve what we want. Many cities have streets and urban spaces that are fun, lively and pleasant without necessarily being overplanned. These spaces generally do not abandon the rules of planning, but they find creative ways to play with the possibilities they offer.

Self organisation in practice

Self organisation is a process which is constant. It cannot be switched off and you cannot choose to do it, as it happens constantly anyway. It is thus part of our societal system. It emerges out of social interaction and is crucial for the survival of groups. In a sense, self organisation is part of our biological nature: as social beings, we form groups in order to grow, cooperate and organise ourselves to become a stronger entity. This can be traced back to evolutionary history where, for some species, it was simply more advantageous to organise and live in groups. With time, these species developed an innate reliance on each other to get things done and use another to their advantage: social animals have learnt to play the system, so to speak.

Besides this, self organisation occurs in groups as to create 'islands of lesser complexity'. In other words: it enables people to make sense of the multitude of incidents, events and phenomena that take place in the world. By self organising and forming groups, these environments are connected and given meaning. Self organisation follows unwritten rules in creating these groups and if one deviates from this rule, it falls apart.

There are two main types of self organisation: the conservative type and the dissipative type. Broadly speaking, the former channels external incentives in order to continue its existing structure, while the latter uses these incentives to change its current structure.

Conservative self organisation thus basically sustains itself: the system or group uses the external incentives to maintain the way it has always functioned and operated. An example of this is the Hamburg port development programme in 2008, in which plans to deepen the estuary and extend the port terminals were faced with considerable protest from the inhabitants in the area. The protests were triggered by a local inhabitant who, after decades of experiencing redevelopment and the threat of demolition, won a European court case against the developers. He was awarded compensation and encouraged other inhabitants to also protest and fight for their land.

The mounting protests were a real shock for the authorities, who had never encountered such disputes before. As they were clueless on how to deal with the situation, their initial response was to disconnect with their opponents. Instead of listening to the protestors, they decided to engage with those that were on their side (i.e. businesses and companies with vested interest) in attempt to build a so-called 'coalition of the willing'. The more they connected with their proponents, the more convinced they became of being right. This ultimately resulted in the authorities becoming less sensitive for counter arguments and a reinforcement, for themselves,

that they were correct. By definition, this is an example of conservative self organisation.

Dissipative self organisation, on the other hand, uses these incentives not to reinforce itself, but to *question* and *change* its internal structure, routines, thoughts and ideas.

Whether conservative or dissipative, self organisation is always a property of human behaviour: even organisations, which are effectively institutionalised self organisations, contain these properties. **If the members change, self organisation will remain unaffected.** An important factor in determining how self organisation is shaped and how cooperation is formed, is through heuristics. These shape people's minds and can affect the group and the way in which it cooperates.

Heuristics

Heuristics refer to experience-based techniques for problem solving in an efficient manner. **Simply speaking, heuristics are an instinctual judgement or educated guess based on common sense. It is a mental shortcut: a strategy which uses available information to solve problems and gain knowledge or a desired result.**

Heuristics affect the way we cooperate: they affect the decisions we make and the partnerships we form in groups. There are an exhaustive amount of types of heuristics, but some common ones that affect the partnerships we make include:

- **Affect heuristic:** Where people use somatic markers (or tags) to choose what they like. People use these markers as comparative tools when they are in new, but similar, situations.

- **Availability heuristic:** When people make choices based on what spings to mind first (usually this is a recent experience).

- **Similarity heuristic:** Where people making choices based on familiarity (something they already know).

- **Recognition heuristic:** Where people choose the option they recognise over the option that they do not.

- **Matching heuristic:** Where people mirror

the choices of others.

- **Control heuristic:** When people choose something with which they think they can control others.

- **Social comparison heuristic:** Where people evaluate themselves against group targets.

- **Social imitation heuristic:** Where people copy the routines, speech and behaviour of group.

- **Effort heuristic:** Where something is considered good if a lot of effort has been put into it.

- **Moral heuristic:** Where normative values determine whether we do or do not particular things.

These illustrate some possible heuristics which affect decision making and group formation. Heuristics such as these play an important role when determining the way in which we cooperate. They demonstrate the difficulty in changing the current urban regime, which is not fully geared to self organisation, as many decisions are made based on a combination of these heuristics which are already embedded in the practical mind-set.

In practice, this can pan out in questionable ways. In his research on urban development in the Netherlands, Lasse Gerrits observed that the Dutch, especially in the cities in Randstad Holland, have become 'addicted to the government'. According to him, **people and organisations are perfectly capable of organising themselves, but the post-war reconstruction of Randstad Holland has eroded that capacity. Following the war, people became used to the government providing for them and this has resulted in a society which now expects the government to do everything for them. In accordance, the government feels obliged to do so, and promises its citizens to provide the demanded goods and services.** In practice, however, the government often fails in doing so as it simply does not have the capacity, time or means to realise what is expected of it.

Recently, however, there have been changes in this mind-set. The crisis and financial cuts have given rise to a new trend:

self organisation (or, more sceptically, a 'you do it for us' attitude). Besides these changes, the research observations also highlighted the way in which Randstad Holland develops (from a behavioural aspect) and why. The analytical observations show that developments in Randstad Holland primarily occur because of the restructuring in government, strengthening of project leadership (working by example), developing the programmatic orientations and building of alliances. None of these common responses are superior and a combination of all of them is needed to keep going. On the other hand, when comparing the North and South wing, the observations demonstrated that development there primarily happens in response to pressure. In other words, material or functional necessity plays a bigger role in determining whether or not changes take place and the metropolitan development mainly occurs in response to pressure, not design. This thus demonstrates that different attitudes and mind-sets can present within the same spaces and organisations, so these do not have to occur separately.

The expert meeting highlighted the important role that self organisation and group formation plays in our society. As social human beings, we formulate boundaries around the groups and systems we create. Whether it is 'us' and 'them', or 'in' and 'out', these easy binary codes help define the groups we become part of. These interactions are based on the expectations we have of others and, in larger numbers, they form groups. There are clear incentives to forming groups and to cooperating and the boundaries are based on these preferred interactions in contrast with the 'outsiders'.

In short: self organisation is a property of human behaviour and it acts as a driver to induce movement and change. Within this, trust is the most important factor in determining the success of the organisation, project or group.

Reflections

From the group discussion, it became clear that self organisation is a complicated and contested term. The difference between organisation and self organisation remained complex, especially with the possibility of people self organising within an organisation (but where an organisation is not self organised by definition). The expert meeting thus made clear that there is a need for a better distinction between the different terms. There is a spectrum between these definitions that requires a division of linguistic labour in order to ensure we use them correctly. Organisation, unlike self organisation, has a structure which can be formed internally or which can have self organising capacities. Self organisation, on the other hand, may better be understood in terms of processes and effects. When applying it to the urban debate, self organisation can be understood easier if we define it as the overall effect which arises from different processes. Interpreting self organisation as an effect instead of a process frees up the pressure of 'starting' to self organise. After all, it is an effect that just happens, due to other processes.

If you recognise self organisation in this way, then it may be more logical as you can aim to stimulate the process which leads to self organisation (as opposed to aiming to achieve self organisation, which is impossible). In the planning field, it can be very important to keep this distinction in mind as it is a reflexive field and one tends to jump from effect to process immediately, which for self organisation does not necessarily work. Interpreting self organisation as an effect as opposed to a process thus enables you to apply it to different contexts more easily.

It is also important to remember that self organisation, as a term, should always be applied to its specific context. In a sense, it doesn't matter if we look at it from its biological or geological features, as long as planners adapt the term for their own use. Self organisation should not be mistaken with self action, as there is a difference between

the two. Likewise, it would be useful to make a distinction in the conditions when these different processes and outcomes happen, particularly in urban settings where confrontation often occurs between organised and non-organised institutional factors. It would therefore be useful to have an overview and clearer idea of how institutionalisation of self organisation happens, in order to categorise how these work. This could then be discussed with different municipalities to build on partnerships and find different ways of working together.

The discussions made clear that the Dutch currently rely too much on the government to provide for them. This may be a typical Dutch phenomenon, but this system needs to change (and is changing) due to current economic pressures. This may also impact the way we behave, function and cooperate in Randstad Holland in the future.

Stephen Marshall pointed out that the uniqueness of Randstad Holland should be celebrated. The fact that it is a collection of reasonably equally-sized cities that are different, yet complementary in terms of the issues that they deal with is very exceptional. Randstad Holland should therefore be seen as an example that other places can learn from.

The expert meeting provided an explorative, theoretical exercise on self organisation. In terms of engaging in the self organisation debate, Stephen Marshall pointed out that the Netherlands is currently ahead of the UK. Having said this, however, the topic is still too often one which academics and complexity theorists think about, as opposed to urban planners and developers. It remains an academic debate about scientific ideas of complexity, and it needs to further develop in order to be used in practice. The fact that cities in Randstad Holland are trying to engage with the topic and filter out what is happening through the language of self organisation is a starting point however: it is an interesting development and advancement to taking things to the next level.

Lastly, in terms of envisioning self organisation, one could imagine it as a Mexican wave. It is related to individuals doing something at one level (i.e. standing up and sitting down), which at a higher level appears organised (i.e. a wave going round the stadium). Although a Mexican wave is not self organised as it is intentional and deliberately formed, it can be a metaphor for self organisation in another sphere.

Similarly one could view the behavioural patterns of victims of an accident in a similar way: leaders and followers naturally emerge in these situations: a natural organisation forms to respond to the situation, in a manner which is not imposed. Self organisation in this sense always has an unexpected element to it, which was not there before and which was not intended. Once it has occurred, it becomes clear that society has formed a division of labour or particular patterns by itself, naturally.

Agenda

The Netherlands has had a rich tradition of different self organising cooperations: i.e cooperations of different stakeholders with the same goals (waterschappen) or those with opposing goals (polder model). However, since the post war reconstruction, the tendency to self organise has eroded, resulting in heavy reliance on the government to provide for its citizens. At present, the decrease in resources in both the public and private sector have triggered a new demand for new and innovative forms of cooperation.

Randstad Holland has a unique spatial structure with a collection of reasonably equally-sized cities that are different. Currently, the goals of the cities in Randstad Holland are inwardly orientated. The real opponents for the future developments in these cities aren't the cities of Randstad Holland, but the urbanised areas of Northwestern Europe. To attract new businesses and people to Randstad Holland, open cooperations between the municipalities and the private sector are needed. Having a strong economy is in everybody's interest after all.

WITH INTERNATIONAL PERSPECTIVE



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