

## **Auckland Waterfront: From a Local Political Compromise to the Global Environmental Agenda**

**Dushko Bogunovich**

*UNITEC Institute of Technology,  
School of Architecture, Auckland, New Zealand*

### **1. Introduction**

The central proposition of this paper is that at this very moment Auckland has a unique historic opportunity to make a radical transition to an environmentally sustainable way of building cities. The opportunity that has presented itself is the redevelopment of a key segment of the city's 4 km long waterfront – the area known as the Wynyard Quarter.

In terms of this conference, the project is both 'strategic' and 'historic'. It is one of the biggest public-private projects in Auckland's history and is backed by the four biggest public sector organisations in the region. In fact, the project's significance goes well beyond the local and regional; Wynyard Quarter has national and international relevance. National - because this is the main waterfront in the country's biggest city; also, because just recently, the Prime Minister declared the government's aspirations to make NZ a 'carbon-neutral' nation. The international relevance of the project lies in the context of the current world-wide mobilisation to shift the global economy in a greener direction. In this shift, cities, and the technologies that support them, will have a key role. That is why they are now commanding ever greater attention from the media, political leaders and the business community.

While it is still unclear to what extent the Auckland waterfront design will address environmental issues, it is quite certain that one day the planning and design decisions made in Auckland in 2007 will be judged against the pace and severity of global climate change as they actually took place during the first two decades of the 21st century.

In the context of the 43rd Congress of the ISOCARP, this paper addresses directly some of the issues raised in the Call for Papers [1]. Specifically, it was inspired by the following two propositions in the Call:

1) On page 12, under "Motivation", the General Rapporteur and her co-authors explained the focus of the Congress on strategic urban projects (SUP) in the following way: "Within the context of the changing role of the government, traditional planning approaches appear too passive and 'control-led'.... [and therefore] planning approaches and instruments that intervene more directly and rapidly, coherently and selectively, and which focus on a specific social reality or spatial dynamics are necessary." Also, a little further in the same text (page 13), the authors asserted that: "As long as real action is not included in spatial planning policies, the shift towards a more qualitative and sustainable development seems unlikely." Indeed, without concrete demonstration through physical projects of what the public sector considers as the desirable way of

developing the city fabric, it is hard for the private sector and the general citizenry to get a clear idea of a 'better' or a 'greener' city. We really cannot expect the typically dry and tedious planning and policy documents to inspire a different way of building and living in cities. At the moment when a growing number of national and city authorities are calling for urgent switch to an environmentally responsible model of urban development, the inability of conventional planning documents to communicate a vision with clarity is no trivial matter.

2) On page 9, the co-authors of the Call for Papers defined the topic of the first of the four Parallel Session ("A Keen Eye") as "The role and the need for contextual visioning as a framework for the design and development of strategic projects". In order to better explain the intention of this session they posed a series of questions: "Why do we need a vision, what is a 'vision', how can it be developed and by whom?" "How can sustainability and spatial quality be introduced in 'visioning'?" These are good questions. Indeed, what does 'sustainability' look like? Why is the concept of 'sustainable development', although in use now for more than twenty years, still such an abstraction for most people? Why after talking about the 'sustainable city' and 'eco-city' for almost two decades, even professionals and academics in relevant disciplines still have difficulty describing what it looks like and how it works?

In short then, this paper will attempt to explain - through the case of Auckland's waterfront - why we need strategic projects, and why we need compelling visions.

## **2. The Wynyard Quarter Plan, 2007**

Since 2004, Auckland City, New Zealand's largest municipality, has assumed a more proactive role in the direction of physical and economic development. While this has been partly prompted by a renewal of interest in strategic urban design in the last 10 to 15 years in NZ in general, it has also been the result of the realisation that Auckland could and should be the locomotive of a modernised, more city-based national economy.

At about the same time, all three levels of government in NZ have become concerned that the Resource Management Act (RMA, 1991), once internationally hailed as an exemplary piece of national environmental legislation, was not really delivering 'sustainability'. This was particularly true in cities and towns.

The combined economic and environmental agendas, reinforced by an array of real and perceived 'aesthetic' issues generated by Auckland City's rapid process of downtown renewal in the 90s, resulted in the council getting a much stronger mandate to intervene in matters of property and infrastructure development. One consequence of that trend has been that, currently, Auckland City Council is the principal instigator of several strategic projects. The projects differ in size, purpose and level of priority but all have at least some of the attributes of 'strategic urban projects' – innovative, transformative, interventionist, demonstrative. Inevitably, some of them are also controversial and risky.

The most ambitious among Auckland's public and public-private projects now, is the Tank Farm/Wynyard Quarter project. It encompasses over 20 ha of prime real estate at the middle section of the city waterfront. It is a joint venture between the city council and the Auckland Regional Holdings (ARH), an investment arm of the Auckland Regional Council (ARC). The project is of such strategic importance that the city council purchased one of the key blocks (about 3 ha, at a cost of about Euro 20 million), on top of it already controlling all streets, roads and waterfront promenades in the area.

The Tank Farm/Wynyard Quarter project is part of a larger vision - *The Auckland Waterfront Vision 2040*. This document was prepared in 2005 jointly by Auckland City Council and Auckland Regional Council with Ports of Auckland. It covers a swathe of urban waterfront land about 4 km long and on average half a kilometre wide. (2) The revised version (2006) recognises "the major role the port and the marine and the fishing industries have played in the city's and the region's economic success" and leaves significant parts of the waterfront to continue these activities. But it also envisages several major public areas: Harbour Park and Teal Park at the western and eastern ends respectively; Westhaven Marina and Drive; Marine events precinct; and the biggest of them: Wynyard Quarter (known colloquially as Tank Farm, and until recently often called the Western Reclamation).

The vision also includes an already redeveloped part of the CBD waterfront - the Viaduct Harbour, which is widely regarded as a successful urban redevelopment project and is quite popular with both Aucklanders and visitors. The subject of this paper - Wynyard Quarter - is the area to the west of the Viaduct Harbour.

The 2040 vision - which in the city council's brochures is announced as being about "creating a world-class CBD waterfront to be proud of" - states that the "waterfront has the potential to be a beautiful destination that is rich in public spaces and activities, supports commercially successful and innovative businesses and celebrates the city's seafaring culture."

What this means in design terms has become a bit clearer at the end of June 2007, when the new plan for the Wynyard Quarter was made public after the signing of a key agreement between the ACC, ARC and ARH. (3)

The Wynyard Quarter contains the largest amount of developable urban land on the city waterfront (35 ha). This in itself makes it the most important segment of Auckland city waterfront. But its significance is further augmented by the fact that it includes Wynyard Wharf - now more commonly referred to as Wynyard Point - a major peninsula-shaped reclamation jutting into the Waitemata Harbour. This artificially created headland is highly visible from many places along the harbour shores (meaning any major structure built on it would be visible from many corners of greater Auckland). At the same time, the Point offers spectacular views of the CBD and the harbour.

The new plan envisages a conversion of most of the industrial and commercial land into “parks, plazas, boulevards, shops, cafes and apartments”, as well as “event spaces and facilities”, while ensuring that “the fishing and marine industries can continue to prosper in the area.” The overall vision is defined thus: “Wynyard Point is for the people of Auckland and beyond to celebrate the city’s diverse cultural expression, love of the harbour and enjoyment of a rich choice of opportunities and experiences where the CBD edge meets the sea.” (4)

The local press has hailed the new plan with headlines like “New park ‘a gift for our children’” (Weekend Herald, 30 June 2007, p A5) and “Promenades and plazas to be proud of” (The New Zealand Herald, 3 July 2007, p A7). The editorial of the only major Auckland daily newspaper, The NZ Herald, endorsed the plan and stated that “Auckland will finally get the waterfront it deserves - one that includes much greater public access, a guaranteed future headland space, and a future iconic building.” (30 June 2007, p A24). The newspaper also lauded the plan as “a vast improvement on the original proposals” and stressed that “the size of the public park overlooking the harbour has been trebled to 4.25 ha, and [that] there will be 2.4 km of publicly accessible waterfront”. The editorial predicted that Tank Farm will eventually be “transformed into a village with green parks, plazas, boulevards, shops, apartments and restaurants.”

The press also acknowledged that some aspects of the plan still might be controversial. The Herald reported that some residents in the nearby older suburbs were still not happy with the amount of developed land versus the amount of open space. But the paper followed this criticism with a reminder that “all up, the Tank Farm will have about 10 ha of public space...” (3 July 2007, p A7), which is almost a third of the total area.

The local residents were also concerned with the proposed maximum height for the new buildings. The council however insisted that ‘urban design is the driving force’ of the whole plan. The explanation was that, in general, the idea was that development will be ‘stepping down’ towards the water. While most of the buildings would be up to seven storeys, there would be also five up-to-14-storey towers on carefully selected sites towards the middle of the quarter (“Project’s building heights a balancing act”; The NZ Herald, 2 July 2007, p A5).

The brief summary of key points in the media and the council’s brochures and websites is to show that the design agenda for the Wynyard Wharf has been reduced to the following issues:

- quantity of public open space;
- public access to the water’s edge;
- opportunities for recreation and events; and
- the height of commercial and residential development.

So far (two weeks at the time of writing this), public debate has been of rather low intensity and mostly ignoring design matters. In those instances where it did tackle the issue of design, the debate revisited the same territory - ‘will Joe Public be happy with the quantity and quality of open space?’. There has been little mention, if any, of environmental impacts of the proposed development, or how the projects could or should

be made environmentally sustainable, or how it could contribute to the city's self-sufficiency, or what exactly was the economic development agenda of this project that is beyond sheer property development.

However (to be fair toward the authors of the new plan). there is a section in the plan which explicitly refers to environmental matters. The SeaCity.co.nz website (established just recently by the newly formed public redevelopment company) contains a page entitled "Environmental Principles". (5) The page very briefly explains that an 'environmentally sustainable design (ESD) initiative' is part of the project and that the intention is to demonstrate 'sustainable [sic] and environmental excellence and leadership' and that a 'holistic ESD strategy [will be] developed specifically for Wynyard Quarter'. While this page really lacks substance, it is heartening to see that the sustainability aspect of this mega-project has not been entirely forgotten. Unfortunately, the media, the politicians who endorsed the plan, and the few commentators and citizens who have so far engaged in the debate, have so far completely ignored this matter.

### **3. Discussion: A local vision and the global reality**

This paper investigates the notions of 'strategic' and 'vision' in urban planning and design, using the case of the just revealed plan for the main part of the Auckland waterfront - Wynyard Quarter.

The key questions are:

1) Is this project really 'strategic'? ...bearing in mind the plan envisages the conventional urbanism consisting of street-grid blocks of high-rise office and apartment development, sweetened with lavish parks, plazas and promenades, while not worrying too much where all the energy, water and construction material will come from, and where all the wastes will go?

2) Does this project have a 'vision'? ...bearing in mind the proposed master plan is detailed in 3D and does carry a degree of certainty about what the place will look like in a decade or two.

A simple, intuitive answer to both questions is 'yes'. The project might be said to have a strategy. Unfortunately, the strategy could be cynically described as one how to stubbornly continue the 20th century model of urban planning and development in face of signals from the planetary ecosystem that this model is unsustainable. The strategy in this plan seems to have been primarily geared to achieve a workable compromise between the 'public interest' and the commercial imperative of making a reasonable profit out of prime real estate. The issue of the overurbanised and overexploited planet and associated environmental risks was simply ignored.

And, yes, the project does have a vision, and this vision does have a design dimension. The design vision is yet another pragmatic New Urbanist (in reality, not 'new' at all, but a recycled 19th century model) master plan, riding on safe ideas such as 'street', 'park', 'boulevard', 'grid' and 'block'. Of course, this vision' is a rather short sighted one. It consciously chooses not to interrogate the traditional urban landscape and, instead of it,

perhaps propose an alternative, environmentally responsible model. Such a model could be more concerned with resource efficiency and sufficiency, and open space and building typologies that support an ecologically responsible way of living in the city, and less with views, access, events and activities.

Clearly, I am here advocating a radically different approach to a project of this size and significance. Instead of the councils' and their consultants' rather conventional approach, I suggest that a project of this level importance should have been focused on urbanistic innovation. The Wynyard Wharf redevelopment should be used as a demonstration of the city of the 21<sup>st</sup> century, not 19<sup>th</sup>. As such, it would have the power to lead NZ's property, construction and design industries of the nation in a new direction - the direction of green innovation, sustainable urbanism, environmental business and carbon-neutral economy.

The justification for this type of meta-agenda lies in the fact that the global environmental outlook is truly grim. The planet is facing more than 'just' climate change – we are now being warned of, or already recording, water shortages and droughts, loss of biodiversity, deforestation, topsoil erosion, and fisheries depletion (6).

The main overall driver of all these parallel crises are cities, i.e. our urban lifestyles and modes of production and consumption. Therefore, only urgent and radical change in the way cities are designed, built and operated can save civilisation from catastrophe.

Today's cities are the greatest aggregate threat to the global environmental system. Their overall metabolism is now well beyond the regenerative and absorptive capacity of the ecosystem of our planet. As cities continue to grow in number, size and per capita resource intensity all over the world, the risk they pose for the civilisation (in other words, paradoxically, for themselves!), grows beyond anybody's ability to estimate it.

This risk is real and closer than most people imagine. The latest scientific study on the subject of climate change suggests that the Earth could easily 'flip' into an environmental cataclysm which would threaten the civilisation as we know it (James Hansen of NASA et al, in the latest *Philosophical Transactions of the Royal Society A*). (\*) The study warns that 'dramatic climate change', triggering a sea level rise by 2100 measured in metres, not centimetres as the IPCC stated in their most recent report - could start quite soon. If this happens, it will create a "different planet from the one on which civilisation developed and for which extensive physical infrastructure has been built".

The authors' reference to 'physical infrastructure' is primarily about energy infrastructure and its reliance on fossil fuel, which produces harmful emissions of greenhouse gases. While they are not saying it explicitly, they are actually pointing their finger at the world's cities.

Only half a year ago we also had a warning from UN-HABITAT that the greatest impact of climate change will be in cities. In November 2006 the Executive Deputy Director of the agency said that, in this 'new urban age of unprecedented, rapid and irreversible urbanisation', 'the mega-cities of the world loom as giant potential flood and disaster traps'. (7)

What the two statements are in effect saying is that cities are both the main culprit in triggering and driving global climate change, and will end up being the main victims of it.

We must ask ourselves: what is wrong with modern cities (beyond their sheer number and size)?

The answer is - their design. The design of the city infrastructure and the design of the buildings. The design principles and technologies that have been employed over the last two centuries have made cities all over the world almost completely dependent on external (re)sources and sinks. This dependence on energy, water, food, materials and waste disposal being sourced somewhere else, is the greatest risk humanity has ever imposed on itself (perhaps short of nuclear weapons - although it might be argued the likelihood of their use is increasingly correlated with urban societies' growing competition for resources, so this is now becoming one, rather than two issues).

To reduce this risk, cities must profoundly and urgently transform their metabolism. This means the key metabolic flows - of energy, water, nutrients, material - must gradually shift from the linear mode to the circular; the total volumes must shrink; and the rate must slow down.

To make this possible, first some of the core elements of the ruling urban planning paradigm must change. We must adopt the view that cities are not just engineered objects, but highly complex artificial ecosystems and in accordance with that, that their planning requires an 'ecosystems approach' (8). All major planning decisions must be subjected to a careful analysis of social benefits and environmental costs ('sustainability assessment', according to Peter Newman (9).

Second, design paradigms for the key urban infrastructure systems must change. This is particularly true of the power infrastructure (10), but, in principle, it applies to all supply networks. In most general terms, the reticulated systems will have to move from fixed, hierarchical, remote-supply, one-way grids, to responsive, rhizomatic, locally-supplied, two-way webs.

The new overarching objective, then, for urban planners and engineers, is a vastly reduced infrastructure in overall volume, plus a far more decentralised and dispersed one. The ultimate condition of this new concept for urban infrastructure is the idea that all infrastructure is fully localised and integrated with each building in a city (with the obvious exception of streets and roads and other spaces for movement and assembly; but, strictly speaking, they never were 'infra-structure' in the literal meaning of that word - something 'under the ground').

While the pace at, and extent to, which this transformation can and should take place is hard to specify, it is clear that this is a massive task. It practically calls for a complete overhaul of the way cities are planned, designed, built, and operated.

The importance and urgency of the task is such that it is no exaggeration to assert that 'sustainable urban design' (and planning) is one of the most critical areas of expertise, and most pressing projects, in human history (11).

The task may be huge - bigger than anything humanity has ever seen - but it is not impossible. The growing number of 'eco-city' projects in both developed and developing countries is telling us "that the filthy cities of the urbanising world can, and will, clean themselves up, just as the squalid cities of the rich world have done." (12).

In any case, we have no choice. This must be done, as the future of the planet depends on the progress in cities (13)

And although "the task of saving the world's modern cities may seem hopeless [...] it is already happening." (Christopher Flavin, president of the Worldwatch Institute, *ibid*)

Apart from countless, relatively small, and perhaps not hugely influential projects all over the world, we are now seeing some major initiatives whose economic consequences are measured in millions of dollars. They are attracting attention of the media not only because of the sums of money mentioned but also because of the importance of the cities involved and the weight of the names of the people endorsing these. Here are three examples:

- In June 2005, on World Environment Day, in San Francisco City Hall the Urban Environmental Accords ('Green Cities Declaration') were signed by "50 mayors of some of the largest and most visionary cities on the planet". The document lists 'seven environmental areas' of action; one of them is 'urban design'. Also in 2005, the first C40 Large Cities Climate Summit was held in London. (14)
- In May 2007, in New York, the second C40 Large Cities Climate Summit was held, led by former US president Bill Clinton and the mayors of London, Ken Livingstone, and New York, Michael Bloomberg. Mayor Bloomberg described the summit as 'groundbreaking' and Mayor Livingstone as 'the biggest single step to tackle climate change that has been taken by any layers of government anywhere in the world since the debate about climate change started.' The outcome of the summit was described as the 'take off of a new global industry' as it was announced that five of the world's most powerful banks launched a \$5 billion fund to speed up energy efficiency programmes in 16 world capitals. (15)
- In April 2007 UN-Habitat recognised that sustainable cities cannot happen without business and launched 'a business partnership for sustainable urbanisation'. (16)

Clearly, a new era in design, technology, urbanism, economic development and business investment has started. The question is: has Auckland taken any notice of this while planning and designing for what is its biggest strategic project in decades?

#### 4. Conclusion

Examples of a new urbanism - an Eco-urbanism, rather than New Urbanism - are popping up all over the world. Examples of new thinking about the design of cities range from spectacularly large and ambitious projects - albeit still on paper, such as Dongtan City in China (17) and Masdar City in UAE (18) - to projects of a more modest size and realistic design agenda, but which you can already live in or at least walk through - for example, Sweden's Vastra Hamnen (the Western Harbour) in Malmo (19) and Hammarby Sjostad in Stockholm (20).

These projects have allocated due attention to the traditional urban design matters, such as the ratio between the public and private domains, and between open and built spaces. But this is not what is making them particularly interesting in the global design scene. What is really attracting international attention is their green design agenda - how high they have set the sustainability objectives and how effective they have been in achieving them through urban, architectural and landscape design.

The lesson for Auckland is that, if its waterfront redevelopment wants to earn the title of a strategic project in the sense of strategic transformation, and if it wants to call itself a vision in that sense of 'visionary', then it must engage the eco-design agenda more boldly. The city and regional councils' aspiration of "creating a world-class CBD waterfront to be proud of" can be achieved only if this project is driven by a globally relevant agenda, rather than a local political compromise.

It is not too late. The new plan is only a draft. The submissions period has commenced and will last till 20 August 2007.

The debate in the media and in various public and professional forums has commenced. Unfortunately, so far this debate has mainly focused on the matters of public access and visual beauty. Sustainability and eco-design innovation have been either forgotten, or assumed to have been dealt with.

The most recent example of the universal focus on the traditional urban design agenda, while ignoring the environmental aspect, was the opinion article by a regional councillor, Joel Cayford, in the *The NZ Herald* on 5 July 2007.(21). Cr Cayford argues that Auckland waterfront "needs to become a popular destination" and that truly 'world class waterfronts' - such as the ones he recently visited in Hamburg, Malmo and Roskilde - are the result of strong design ideas. Nothing wrong with these assertions in principle. But Mr Cayford's idea of good design is one of catering primarily to human need for recreation. While there are some places on the Auckland waterfront where this was an appropriate driver of the redevelopment effort in the past (Viaduct Harbour, Princess Wharf), and other places where the same driver should lead the next step of the redevelopment (Harbour Park; Jellicoe precinct), this approach is highly questionable in the case of the relatively distant, isolated and often wind-swept Wynyard Point.

My reaction - in the form of a letter to the editor (published on 7 July 2007) - was the following:

*Auckland Regional Councillor Joel Cayford is right to point out a huge risk of missed opportunity with the latest Tank Farm redevelopment plan. But his criticism of the plan as not having enough for all Aucklanders and his calling for a more 'popular waterfront' is hard to understand: the new scheme envisages 38% of land as public open space, including over 2 km of public access to the water's edge.*

*The real problem with the new plan is not a lack of public space but its glorification of 'public access', accompanied by a rather romantic notion of what the public urban space should be for - promenade, views, fun and cappuccinos. Truly world-class waterfronts in the 21st century will be ones which show how to use the urban open space for clean and local generation of the key resources for life, without sacrificing aesthetics and opportunities for recreation.*

*The lavish open urban space in the new plan offers outstanding opportunities for a demonstration of a sustainable urbanism, supported by clean technologies and green buildings. On a planet in deep trouble with its climate - primarily because of its cities' runaway consumption of natural resources - this approach would capture the attention of the world audience far better than cafes and shops on tree-lined boulevards.*

## References

(1) ISOCARP (2007) Urban Dialogues: Co-productive ways to related visioning and strategic urban projects. Call for papers, 43rd International Planning Congress, ISOCARP, Antwerp, Belgium, 19-23 September 2007. ISOCARP and City of Antwerp.

(2) Auckland waterfront 2040. See at:  
<http://www.aucklandcity.govt.nz/council/documents/cbdwaterfront/default.asp>

(3) Sea + City. See at:  
<http://www.seacity.co.nz/>

(4) From Tanks to Treasure. Council flier. Auckland City Council, 2007.

(5) Environmental principles. See at:  
[http://www.seacity.co.nz/design\\_concept\\_environmental.htm](http://www.seacity.co.nz/design_concept_environmental.htm)

(6) Neither is this list complete, nor are the 'issues' separate processes. There are dangerous synergies among them, such as that between global warming and loss of biodiversity: "Climate change is one of the main forces responsible for the enormous loss of biodiversity on Earth.. as the long-term changes in average temperatures can dramatically alter the habitats..." Thus both global issues have their original cause in the way cities function. "Biodiversity: Cities eating up Resources and Habitat". See at:  
[http://www.sustdev.org/index.php?option=com\\_content&task=view&id=1835&Itemid=35](http://www.sustdev.org/index.php?option=com_content&task=view&id=1835&Itemid=35)

Having said that, it is equally true that: "Cities are not the problem, but the solution in the battle for diversity" (3 May 2007)

See at:

<http://www.citymayors.com/environment/biodiversity.html>

(7) "Greatest impact of climate change will be in cities". See at:

<http://www.unhabitat.org/content.asp?cid=4125&catid=271&typeid=6&subMenuId=0>

A similar point is made in:

UNEP and UN-HABITAT (2005). *Climate Change and the Role of Cities*. Nairobi:

"Urban centres are strongly affected by climate change [... but] cities are also a key contributor to climate change.... If global efforts to address climate change are to be successful, they will need to integrate city requirements and environmental management capacities."

Also, "Research suggests many coastal cities will be flooded by the end of the century". See at:

[http://www.citymayors.com/environment/flooded\\_cities.html](http://www.citymayors.com/environment/flooded_cities.html)

Cities mentioned by name as particularly exposed are among the world's largest - London, Tokyo, Mumbai and New York.

(8) Marcotullio, P. J. (2006) Ecosystem approaches and urban environmental planning. *Cities between Integration and Disintegration*, ISOCARP Review. Istanbul and Sitges: ISOCARP, 28-47.

(9) Newman, P (2006). The Environmental impact of cities. *Environment and Urbanisation*, Vol. 18, No. 2, 275-295.

(10) Droege, P (2006). *Renewable City - A Comprehensive Guide to an Urban Revolution*. Chichester: Wiley.

(11) Even if the global environmental situation were not an issue, the cities worldwide would still need a massive investment into their decaying infrastructure - see "World's crumbling cities need \$40 trillion upgrade", *The Independent*, 7 April 2007. See at:

<http://news.independent.co.uk/business/news/article2430172.ece>

(12) The World goes to town. A special report on cities. *The Economist*. May 5th 2007; p 12.

(13) - (2007). *State of the World 2007: Our Urban Future*. Washington DC: Worldwatch Institute. The report continues the optimistic note started earlier in Chapter 11: Designing Sustainable Cities in the book by the Worldwatch Institute founder and current president of the Earth Policy Institute, Lester R. Brown (2006) - *Plan B 2.0: Rescuing a Planet Under Stress and a Civilisation in Trouble*. Norton, New York.

(14) "San Francisco Mayor proclaims urban environmental movement". See at:

[http://www.citymayors.com/environment/environment\\_day.html](http://www.citymayors.com/environment/environment_day.html)

(15) "President Clinton announces landmark program to reduce energy use in buildings worldwide". See at:

<http://www.c40cities.org/news/news-20070516.jsp>

(16) "UN-HABITAT launches worldwide private sector partnerships for sustainable urbanisation". See at:

<http://www.unhabitat.org/content.asp?cid=4641&catid=527&typeid=6&subMenuId=0>

(17) <http://www.dongtan.biz/english/gywm/>

(18) <http://www.fosterandpartners.com/News/291/Default.aspx>

and

<http://www.building.co.uk/story.asp?storycode=3086562&origin=bldgnewsle>

(19) "Visions for Tomorrow in Vastra Hamnen". See at:

<http://www.malmo.se/servicemeny/cityofmalmo/westernharbour.4.33aee30d103b8f15916800024235.html>

(20) “Welcome to Hammarbysjostad”. See at:

<http://www.hammarbysjostad.se/>

and

<http://www.cabe.org.uk/default.aspx?contentitemid=1318&aspectid=11>

(21) “Waterfront deserves waves of inspiration”. In The NZ Herald, 5 July 2007, p A19. See at:

[http://www.nzherald.co.nz/section/466/story.cfm?c\\_id=466&objectid=10449643](http://www.nzherald.co.nz/section/466/story.cfm?c_id=466&objectid=10449643)