

An aerial night photograph of a city, likely New York City, showing a dense urban landscape with numerous illuminated buildings. A large river, the Hudson River, flows through the center-right of the image, and a prominent suspension bridge, the George Washington Bridge, spans across it. The city lights create a vibrant orange and yellow glow against the dark night sky.

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ISOCARP
REVIEW 09

Frontiers of Planning: Visionary futures for human settlements

Editors: Jim Colman and Chris Gossop





ISOCARP · Review 09

Frontiers of Planning: Visionary futures for human settlements

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and Chris Gossop

2013



ISOCARP
Knowledge for better Cities

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Lifeguards ensuring the safety of people
at the man-made lagoon and beach at South Bank.
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CONTENTS

| | |
|----|---|
| 6 | Foreword One Milica Bajić-Brković |
| 7 | Foreword Two John Minnery |
| 8 | Editorial Jim Colman and Chris Gossop |
| 14 | Climate Change, the Future, and the Frontier for Planning Ethan Seltzer |
| 28 | The Influence of Planning Standards on the Long Term Sustainability of Settlements: Evidence from Dar es Salaam Wolfgang Scholz · Janepher Shedrack Tanya Dayaram · Peter Robinson |
| 46 | Cross Border Planning and Cooperation in A Trinational Agglomeration Area Nicole Wirz Schneider |
| 60 | Urban Regeneration and Its Role in City Planning: Perspectives from Spain Juan Luis de las Rivas Sanz |
| 80 | Canberra as an Exemplar of International Orientations in City and Regional Planning Karl F. Fischer · James Weirick |
| 96 | Investigating the Motivations, Rhetoric and Controversy Surrounding Recent Planning Reforms in New South Wales, Australia and Ontario, Canada Laura Schatz · Awais Piracha |

| | |
|-----|--|
| 110 | Auckland, New Zealand 2040: A Resilient, Linear City-Region Dushko Bogunovich |
| 122 | Planning In Oceania: The Case of Tonga George Mal Horner |
| 142 | Urban and Social Planning Through Public-Private Partnership: The Case of The Bonnyrigg Living Communities Project, Sydney Australia Dallas Rogers |
| 156 | Beautiful China: The Experience of Jiangsu's Rural Village Improvement Program Fulong Wu · Lan Zhou |
| 170 | Planning for Low Carbon Eco-cities in China – New Pathways Stanley C. T. Yip |
| 188 | The Big Jump Forwards: An Example of China's Pursuit towards a New Pattern of Growth Hongyang Wang· Martin Dubbeling |
| 202 | About the editors |
| 203 | About the authors |

FOREWORD ONE

Milica Bajić-Brković

ISOCARP President 2012-2015

Within the very heart of the planning profession is the urge to continuously search for better and more responsive ways of dealing with the challenges of urban development and growth. While in the past planners were mostly concerned with bringing together the disconnected or dispersed parts into a whole, and establishing a functional relationship between them, today's professionals are faced with much more complex tasks. Cities are recognized as multifaceted structures which are composed of resources, processes, and the effects of these processes. At the same time, we see a closer relationship developing between cities and their environs, and between cities and regions.

The cities of today are challenged with issues which were never present in earlier times. Climate change challenges rank among the most critical ones as their implications come across in almost every aspect of urban life. No less challenging is the dynamic and prevailing development of ICT which provides planners with remarkable opportunities for solving different urban problems and making cities better places for people, while at the same time stimulating them to grapple with challenges not previously experienced. Improved communications and accessibility to information, to institutions, and to people generally, have all opened up new horizons for planning and decision making at every level. Of limited use yesterday, today ICT presents as an intrinsic part of professional practice, while its powerful economic capacity is integral to the task of shaping development in regions and cities worldwide. There are also remarkable advancements in many other fields related to planning. Examples include the self-sufficient or autonomous house, the super-high speed transportation systems, or 'submarine' buildings – all of which could significantly affect planners' visions and alter the perceptions of the urban environments which we share today. The planning world is changing and a new culture of planning is emerging.

At the same time there are many urban issues

which will remain a constant part of planners' work. However, the approach will be different, or the planning process may change, given that these more sophisticated ways of doing things are already available. The increasing variety of planning methodologies, tools and procedures is becoming a complementary part of innovative planning practice.

This book is about a changing world and about changing planning practice. From eleven different countries, the list of authors comprises Ethan Seltzer, Wolfgang Scholz, Janepher Shedrack, Tanya Dayaram, Peter Robinson, Nicole Wirz Schneider, Juan Luis de las Rivas Sanz, Karl F. Fischer, James Weirick, Laura Schatz, Awais Piracha, Dushko Bogunovich, George Mal Horner, Dallas Rogers, Fulong Wu, Lan Zhou and Stanley C. T. Yip. Through the efforts of Chris Gossop and Jim Colman (who kindly agreed to serve as co-editors of this publication), the ideas, knowledge and experience of these writers has become exciting reading material for learning, discovery, and the stimulation of engaging with a new and fascinating culture of planning. To all of them I would like to extend my very warm thanks: to the authors for their commitment to the planning profession and generous sharing of their knowledge and experience with us all, and to Chris and Jim for their continuing dedication, patience and wise guidance in working with colleagues from around the world. I would also like to thank Shi Nan, Vice President of ISOCARP, who so devotedly worked with the whole team. Last but not least, many thanks go to Lucian Perici who was the coordinator for the Review and to everyone else involved, including the copy-editor/proof-reader, Andrew Hitchen and the designer, Ricardo Moura. The Urban Planning Society of China (UPSC), our partner in many projects, joined us once again. It was with their generous help that this publication was made possible, and I gratefully thank them, especially Li Lin, production manager of the Society's *City Planning Review*. ■

FOREWORD TWO

John Minnery

Chair, Local Organising Committee,
ISOCARP Congress Brisbane 2013

Frontiers have always been important for planning. But in the same way that Faludi and others drew attention to the differences between theory IN planning and the theory OF planning there are also differences between the frontiers OF planning and planning AT the frontier. Seen from the point of view of Brisbane, Australia's 'new world city' where ideas from Europe and the 'old world' mingle with ideas from the 'new world' in what some have called the Asian century, both are important.

The planning profession has been for a long time at the frontier, at the leading edge, of where things are happening. In the nineteenth century public concerns with health and housing led to the beginnings of the modern planning movement and helped create new and more humane living environments in the teeming industrial cities of Europe. Today planning helps create better communities, boosts creative cities and enhances urban sustainability in countries across the globe. Planners have taken a lead in preparing cities for climate change; they have helped in overcoming spatial social divides. In important ways, planners are at the frontier of human betterment. Many of the papers presented in Brisbane illustrate how this special kind of frontier mentality – planning at the urban and regional frontier – plays a critical role in pushing the boundaries of urban, social, environmental and economic agendas.

Planning at the frontier has to address a plethora of emerging issues. The communications revolution has led to massive changes to things as diverse as the way people buy goods and services to patterns of social communication to the shape of peri-urban growth on the fringes of Indian cities. Planning has sought, although not always successfully, to cater for these changes. The scale of the frontier at which planning works is enormous; it is shaped by an abundance of exciting but also concerning transformations. Emerging issues include worldwide migration and demographic shifts, continuing urban poverty and urban in-

equality, concerns about crime and safety as well as vulnerability to natural hazards; but they also include the need to identify and protect the cherished historical places that may be overwhelmed by the onward march of change.

So the frontiers at which planning works are complex, growing and somewhat intimidating. Faced with these challenges we need to expand the frontiers of planning knowledge, the frontiers in planning. Planners need still to utilise the extensive body of knowledge and experience the profession has accumulated over the years but they also need to develop new knowledge at the frontiers of innovation and creativity and even new ways of approaching old problems. The contribution of an international collaborative organisation such as ISOCARP is critical here. Even though forces such as population increase and urbanisation are creating similar problems almost everywhere they can still have quite different local manifestations. Local conditions are important; they shape both responses and outcomes. Planning systems differ considerably in different countries where legislation, culture, language and history lead to dissimilar responses to what may be global problems. Thus, by sharing local experiences international organisations such as ISOCARP can help expand the frontiers of planning knowledge. New ways of dealing with common issues can be exposed. New innovations can be demonstrated. New ways of addressing old problems can be explored and debated.

ISOCARP is only one of many agencies at the frontier of planning knowledge. It is important that we all work to expand this knowledge frontier. Planning plays a critical role at the frontiers of both global and local change; but it can continue to play this important role only if all planners continue to expand the frontiers of planning knowledge. ■

EDITORIAL

Jim Colman · Chris Gossop

This issue of the ISOCARP Review coincides with the centenary of the birth of Canberra – one of the world's youngest capital cities. And the City of Brisbane (host to the Society's 49th World Congress) will bring planners from around the world to visit one of the world's youngest nations. It is a fact often forgotten that barely 200 years have passed since Australia's continental mass was first mapped with sufficient accuracy to enable its size and shape to be contemplated by outsiders and to be better understood by its indigenous peoples. As for Brisbane, it remained a speck on the map of the country's eastern seaboard for several decades after the first European settlement was established further south in Sydney in 1788. It was not until the mid 1800s that the British colony of Queensland started to achieve global prominence, and Brisbane (as its capital) moved from its very tentative childhood through adolescence to its emergence today as a great Pacific Rim city.

These morsels of history are presented here as a reminder that when one comes to consider the growth and development of cities from a global perspective (as Lewis Mumford did in 1961 in his classic *The City in History*), Australia might be seen as a relative new-comer. Yet such impressions can be deceptive. If one digs into the recent history of planning in this country there are some surprises to be found; and the story of Canberra is undoubtedly the most exciting of these. Others include early national town planning conferences in Adelaide (1917) and Brisbane (1918) and the gradual introduction of state-based planning legislation over the ensuing decades. Today, with a national population of around 22 million, every state and local authority has planning powers. Every state is a player in the conservation of heritage and the protection of the natural environment. Planning

is taught in most of the nation's universities. And the Australian Planning Institute is an influential voice for the profession at every level.

Such is the local context for Review 09 and ISOCARP's 49th World Congress.

In a global context, this issue of the Review takes us into territory which carries a number of salutary messages for today's urbanists. They range from the perplexing yet quietly optimistic piece on climate change by Ethan Seltzer, to the fascinating case studies from China and Spain, and on to the farthest reaches of Oceania with the story of the unique Tongan project by Mal Horner. The twelve papers herein serve to emphasize once again the extraordinarily wide canvas against which today's planners work – a canvas which would have been beyond the imagination of the modern profession's founders. To a large extent, those pioneers saw planning as being little more than an amalgam or extension of architecture, engineering and surveying. Today (as the papers demonstrate yet again) professional horizons are seemingly boundless. Today, the typical project calls for teamwork, skill-sharing, and interdisciplinary collaboration on an unprecedented scale. Today, the computer has replaced the slide-rule, drawing board and T-square; and the digital revolution has brought with it new challenges and opportunities and possibly risks – for practitioners working at every scale from tiny village to mega-city.

In Brisbane, the 2013 Congress will be dealing with these new influences under the banner of *Frontiers for Planning* – evolving and declining models of city planning practice. This issue of the Review has been planned to complement the rich array of Congress papers on the 'frontier' theme with a selection of pieces from professional planners working in the Old and New worlds, in China, in Australasia, and in Oceania.

Each story is illustrative of a 'frontier' of planning which is being explored – somewhere around the globe- at this very moment. And beyond these frontiers will be others whose stories are yet to be told. Each story is different. And yet each is the same – in that people's needs invariably underpin the problematique; local political and cultural influences are always present; solutions demand both short and long-term visions; and one or more 'champions' are needed to steer the project through to completion.

Perhaps it is in the role of champion that planners can best find their professional feet in the exciting yet often turbulent world of contemporary practice. It is certainly reasonable to claim that amongst urban professionals, planners – by training and aptitude – are best placed to push for a holistic view of the situation at hand whilst simultaneously pondering the scope for exploiting to the full the benefits of bringing other experts into the game. This is not to assert that leadership is the exclusive domain of the planner. But it is to assert that, when it comes to complex urban problems, planners are at the frontier, taking a lead in building the intellectual bridges and networks and problem-solving processes which are pre-requisites for success. The editorial team suggest that the papers which follow provide sound evidence in support of this assertion.

So which particular frontiers are covered? Perhaps the first – and most daunting – is that of climate change to which we have already referred (Seltzer). This vital new area for the planner poses challenges which are at the heart of a number of our articles.

Thus it underpins the planning of metropolitan Auckland - New Zealand's largest city. On the one hand we have the official vision which emphasises densification and the compact city

idea; on the other the alternative version advanced by our author which is based on a decentralist model and the use of smaller, off-grid utilities (Bogunovitch). Climate change is of critical importance for the planning of Tonga's human settlements given the acute threat posed by sea level rise (Horner). And it underpins China's eco cities and the major demonstration programme that is now being pursued (Yip).

Those demonstration cities form a key part of China's massive urbanisation. Two further papers from China present contrasting approaches to accommodating such change. Jiangsu's village improvement programme provides an inspiring vision for the revival of village life as a counter focus for economic development (Fulong Wu, Lan Zhou) and the reinvention of Shantou shows how new 'organic' forms of master planning can retain the physical heritage and unique culture of this important coastal city (Wang, Dubbeling). Both experiences are at the true frontiers of planning in this rapidly changing country.

The proof of a plan's effectiveness lies in its implementation and in the quality of its results. The lessons from past mistakes show all too clearly that getting it right is important 'frontier territory'. Notable examples of truly effective 'frontier' planning can be seen in our Spanish case studies which reveal the results achieved in Bilbao and Vitoria (JL de las Rivas). And from Africa the contrasting pictures of Dar es Salaam in Tanzania and Durban in South Africa demonstrate the importance of adopting appropriate development control policies which can not only provide new homes but also cater for peoples' livelihoods as a fundamental part of the planning for these cities (Scholz et al). Yet another frontier relates to the difficulty of deciding how development should be funded given the limits to the public purse in many countries. As our Sydney example shows,

new public-private mechanisms are emerging but they are not without risk (Rogers)

Then there is the importance of a long term vision and of maintaining a commitment to that vision. We can see this in our case study of Canberra (Fischer and Weirick). Here – despite several decades of political and economic vicissitudes, and a recent phase of ‘short termism’ and diminished planning – the magnificent initial vision for the city centre has largely survived. And we can see the effects of narrow political influences in our comparative study of New South Wales and Ontario where ‘tinkering’ with the prevailing system and ‘the amendment syndrome’ run counter to a long term outlook and vision (Schatz and Piracha). In complete contrast we have the example of Basel where three countries have pooled their planning functions to operate across national frontiers in the long term interests of each of them (Wirz).

Conclusion

The sub-title of our book is ‘Visionary futures for human settlements’. From the example of Canberra we see what happens when the long view of planning is interrupted by short term political or narrow departmental considerations. But the short term fix can often mean ill considered, sub-optimal, developments leaving a poor legacy in social and environmental terms, and no guarantees that the physical improvements and economic opportunities that may have been created will genuinely meet an area’s long term needs – or prevail into the future. This is an argument for a return to the frontier of holistic planning which balances the economic, the social and the environmental factors and applies into the long term. Given the global imperative to move towards a low carbon world, that implies twenty or even fifty year timescales and a vision to match.

Such are some of the important messages which are revealed in Review 09. The editorial team records its very sincere thanks to all the invited authors for their valued (and varied) contributions to this latest issue. In so doing, we hope that the results of their efforts will help to stimulate fresh thinking and action as the planning profession moves across yet more new frontiers in human settlements - across the globe. ■



The Brisbane River.
© Image courtesy of Brisbane Marketing



CLIMATE CHANGE, THE FUTURE, AND THE FRONTIER FOR PLANNING

Ethan Seltzer

Climate change is both an immediate challenge for planners and designers, as well as a stark challenge to planning itself. To many, particularly the young, climate change signals the coming of an undesirable future, and planning for that changed world is a sign of defeat, not cause for hope. With planning described by some as the collective organization of hope, under what circumstances, and through what processes, will citizens and communities plan for a future that no one hopes for? This paper explores the nature of the climate change issue and the ways that it brings forth both hope and despair in the context of planning. It concludes with four suggestions for enabling planning to occur under these extraordinary circumstances.

INTRODUCTION

Climate change is remaking the future as a frontier for planning. Planning, after all, is a discipline steeped in hope, directed at the certainty of a future. To many, climate change is a problem of the present, requiring an immediate and substantial response. The idea of planning for the future is mere accommodation when more pressing challenges, higher purposes, and better present day objectives demand attention. Today, planning for the future is tantamount to waving the white flag of surrender. This is a direct challenge both to the idealism and to the principles underlying the practice of planning and the profession itself.

The impetus for this paper is a growing sentiment of despair associated with climate change among the idealistic 20-somethings that populate my classes. I am on the faculty of the Nohad A. Toulan School of Urban Studies and Planning at Portland State University in Portland, Oregon, USA. Not coincidentally, I have also noticed this same sentiment among the concerned 20-somethings that populate my kitchen on occasion, home for a meal or a night as they move, now, through their own lives. What I've noticed is that climate change is turning the previously hopeful into the newly despairing. That is, the sense that the future holds promise is being interrupted by a new sense that there might not be much of a future at all.

HOPE, DESPAIR, AND CLIMATE CHANGE

Why is this? The sources for despair aren't hard to find, and have been addressed in the climate change literature:

- The problem is global in scale, a long way from the scale at which most people feel effective and connected. (Ostrom et al, 1999; Weber and Stern, 2011)



Earth seen from Space. Source: NASA

- Costs and benefits of acting are separated in time: costs are borne immediately while benefits may not materialize for years, or even in the same places where the costs are paid. (Committee on America's Climate Choices, 2011)
- Scientists can't communicate. (Sarewitz, 2004; Gowdy, 2010; Hoffman, 2011; Somerville and Hassol, 2011)
- Those in power don't want to change. Indeed, some have gone so far as to suggest that crisis conditions will be necessary before the world will declare "war" on climate change. (Nesse, 1999; Rangers and Gilding, 2009)
- It's too late (Friedman, 2011) and/or things are changing much faster than we thought. (Hansen, 2012; Muller, 2012)
- Someone should do something, quickly and at every scale, now... which, of course, is unlikely. (Kushner, 2009)

Many of these themes are reinforced in the popular literature about climate change. For example, Lester Brown, in his *Plan B 4.0: Mobilizing to Save Civilization* (Brown, 2009), lays out the case for immediate and substantial change. In short, civilization as we know it will collapse if we don't immediately change the path we're on, and history is our guide to understanding just how real that threat can be. The first 76 pages tell the tale of impending doom. The next 162 pages explain how it is technically feasible to redirect resources and activity to save the globe, with little or no discussion of the political or economic strategies needed to make it so.

In the last 27 pages he returns to the theme that doom is around the corner, particularly if we don't mobilize fast enough. However, it is only the last 3 pages that finally get around to what the reader can do, and even then, it pretty much boils down to writing to your elected representatives, the very same representatives that a substantial portion of the book identifies as being the problem. The net result is a mixed message: immediate action is needed; in theory at least, technology exists to make it possible to reverse course; and getting there is dependent on our collective willingness to believe that things are bad and only going to get worse.

Though Brown's message is factually correct, its impact is hardly inspiring. When he writes, "With many US automobile assembly lines currently

idled, it would be a relatively simple matter to re-tool some of them to produce wind turbines, enabling the country to quickly harness its vast wind energy potential," he makes it sound technically possible but miles away from actually happening. (Brown, 2009, page 266) For young readers, those particularly who take the message of doom literally and at face value, and who observe little action on such "relatively simple" matters, it all adds up to the sense that the game is over.

A similar but different message emerges in Bill McKibben's *Eaarth: making a life on a tough new planet*. (McKibben, 2011) The book, like Brown's and many others, begins with a description of the disaster that is *now* with us, and the disaster which is to come. His point is that the planet is changing much faster than we anticipated, and it has become a planet we've never experienced before. It's not a question of how to preserve what we have, but how to understand where we now find ourselves, mostly a place that no one would want to be. The title, "Eaarth," was chosen to underscore that earth is different now, and in fact doesn't exist in a form we'd easily recognize. McKibben identifies the ways that politicians and others have invoked the necessity of "acting on behalf of our grandchildren," but that most of them regard global warming as a distant threat rather than a current reality. (McKibben, 2011, page 11)

In the second half of the book, McKibben paints a picture of the kind of vision we'll need to embrace. He writes:

"My point throughout this book has been that we'll need to change to cope with the new Eaarth we've created. We'll need, chief among all things, to get smaller, less centralized, to focus not on growth but on maintenance, on a controlled decline from the perilous heights to which we've climbed." (McKibben, 2011, page 204)

McKibben recognizes that institutions, left to themselves, will never change in these ways. To his credit, he has been engaged in starting an international grassroots movement to promote efforts to reduce carbon in the atmosphere through local initiatives aimed at both cutting carbon and meeting local needs. However, like Brown and other writers, he starts by reinforcing the undesirability of the world we're becoming,

and the necessity of the powerful giving up or using their power differently. These concerns, plus the overwhelming sense that it's too late – are all themes that are combining to move attentive citizens from hope to despair.

Mark Hertsgaard, in his book *Hot: Living through the Next Fifty Years on Earth*, frames the entire discussion through the lens provided by the world that his young daughter would inherit, echoing McKibben's invocation of grandchildren (Hertsgaard, 2011). He acknowledges the role that hope needs to play in motivating people to make changes. However, he then presents the likely future as being a choice between pain and disaster, where "pain" refers to making sacrifices and "disaster" to the elimination of ways of life known by present residents of the planet.

Hertsgaard, like McKibben and others, sees the challenge of climate change as almost overwhelming, but then consciously chooses to look for hope among despair. After painting a picture of inaction, he recounts stories of both missed opportunities and heroic accomplishment, of reasons for finding hope among the evidence of the pain-vs-disaster future looming before us.

This literature is all constructed in a similar way, presenting a comparable story: the world is going to hell, climate is out of control, it might not be too late, we know what to do, but we have to do it really fast and the "it" has a lot to do with what "they" are going to make possible. The question is then: what leads us to present the climate change issue in this way, and is it a good idea?

The sheer weight of the evidence of climate change is presented almost as a way to suggest that the unanswerable questions about politics and process just have to be answered, *immediately* and *in the affirmative*. How do we turn the corner to something other than "Pollyannaish" visions of interests aligning to real action and results? How can we bring real comfort to an audience (particularly the young) who are rightly attuned to the very reasonable belief that if we were really serious we would be doing something significant right now?

Of course, planning has a long history of visionaries, idealism, and utopian pronouncements. Early in the 20th century Ebenezer Howard led the way with his Garden Cities movement, to be followed by the writings of the visionary urbanists

and regionalists in the USA who focused on river basin development and the actual construction of "new towns". These were profound translations of hope into reality despite great opposition and suspicion. That actual places like Radburn (New Jersey) were constructed was nothing short of miraculous.

Further, there are many times in history when despair must have seemed like the most logical and rational response. The Great Depression, the Cold War, and the War to End All Wars probably all elicited similar responses. The potato famine in Ireland, and more recent examples of famine and catastrophe in the developing world, (not to mention the decimation by smallpox of native peoples in my own hometown, Portland, Oregon) were and are times when many thought the world and its peoples were coming to an end.

I find it hard, as a planner, not to wonder what the impact of diminished hope, or the absence of hope, might be on our capacity as professionals *to plan* and *to act* with the communities we serve. Planning is fundamentally an optimistic pursuit. We work with communities to envision better futures, and the whole enterprise is predicated on the notion that there will be a better future.

As Reading points out in his book, usefully entitled *Hope and Despair*, hope itself is the ability to believe in and act on behalf of a future that we may never directly experience. (2004) To Reading, future-oriented behavior is the behavioral evidence of hope. Hope, in this view, is at the core of planning. Without hope, there is no capacity or willingness to plan. For Reading, despair is the absence of hope. Its common manifestation is depression, a condition where there is no future – only the present in its most unrelenting form. Hope and despair, like the present and the future, are intimately related and shape each other. You can't, in fact, have one without the other.

In a more social vein, Reading notes that:

"Morale is the social equivalent of hope. It involves a shared expectation by the members of a group that they can gain what they want by working together to obtain it." (2004, page 142)

In this case, morale rises or falls as the group's perception of its future prospects rises or falls. Members of a group collaboratively engage in

future-oriented behavior. The task for leaders is to safely lead the group into the future. For a group, thinking about the future can be empowering and energizing, and/or cause for inaction and despair. In this context, hope is the basis for believing that humankind will find useful solutions to today's problems, and compelling ideas around which to build a better future.

Similar themes are struck by Baum in his book, *The Organization of Hope: Communities planning themselves*. (1997) Baum writes about his experiences in Baltimore stemming from his interest in both planning and communities. He writes about the tension between community and planning:

"People live in communities of memory. Planning calls them to create and join communities of hope. The language of the lived community is the language of origins and the past. The language of planning is the language of the future." (Baum, 1997, page 275)

However, as elusive as the future is, making it at least seem real or attainable is at the heart of planning. Certainly this is something that is easier to do when times or conditions are hopeful, less so when hope is hard to find.

Shome and Marx, writing on the psychology of climate change communication, note that there is a "finite pool of worry" among the public. For these writers, emotion can engage people – but not forever. There are always new, more pressing things to worry about. (Shome and Marx, 2009, page 21) Overexposure to threatening issues can lead to emotional numbing, and it's important to acknowledge that today there is a whole host of demands being placed on the time and attention of the public. They also note that people tend to discount future gains much more than future losses. It is important to bring the issue into the present as much as possible in order to get public support for future outcomes which are claimed to be better than what seem to be the most likely outcomes -given current circumstances.

Most important, they point to having the climate dialog in groups. The future, as planners know, is uncertain. In the absence of 100% certainty or knowledge, a group context for the dialog can help to link present and future in a manner that activates social supports and col-

lective rather than individual goals. (Shome and Marx, 2009, page 29) This finding parallels other research on, for example, energy conservation where deeper and broader peer networks were found to produce more significant energy savings. (Peschiera and Taylor, 2012) In the face of uncertainty, a sense of being in this together helps to enable and encourage action that might otherwise be paralyzing for individuals.

LOCAL SOLUTIONS

Naustdalslid takes up similar issues when he asks why society doesn't act on the available scientific knowledge about climate change. (Naustdalslid, 2011) He makes the interesting point that climate change is man-made in two ways: first - from the release of carbon dioxide into the atmosphere in large amounts; and second - by climate science itself, since climate change was essentially invisible without it. (Naustdalslid, 2011, page 243)

He maintains that traditional environmental problems rest on common knowledge; they can be seen and identified in time and space; and the damage they cause is largely visible. Conversely, contemporary environmental problems such as climate change are invisible and hidden from immediate perception. They require scientific knowledge to be established, and can't easily be traced to their source with simple cause and effect relationships.

Nature and society can be seen as interlinked in traditional environmental problems, but they must be viewed as both interlinked *and* interdependent when it comes to the contemporary situation. His point is both simple and challenging. Today's environmental problems like climate change are entirely new because they require revisiting fundamental relationships between nature, society, science, and policy.

However, this is not easy. Most people don't experience climate change directly, or they aren't aware that they do. It follows that tacit knowledge (needed for motivating action following the principles put forth by Shome and Marx) is not readily available. Today's problems also require a new and higher commitment to interdisciplinary ways of knowing, yet traditional science funding agencies are slow to embrace that reality. Further, there is no "scientific solution" to climate change. (Naust-



Figure 1: Town plan - Radburn, US

dalslid, 2011, page 249) In effect, this means that solutions demand change in both expectations and behavior, altering billions of local decisions that combine to create global phenomena. He concludes that in this environment, and given the nature of the problem, we are more likely to get local collective action than top-down agreement.

Can we get global results from local actions? Farber notes that there are legitimate questions about the efficacy of sub-global actions in response to global challenges. However, he finds that sub-global actions in response to climate change can make a significant difference in global climate. Perhaps most importantly, they help to create an environment within which actual global initiatives might one day succeed. He concludes, "Sub-global action is not a sure thing, but sub-global action is the best bet we have to bridge the time until a global regime emerges." (Farber, 2012)

Similarly, Rayner begins by asserting that the top-down, nation-state approach to addressing climate change has failed, largely because climate is not the same kind of problem that those approaches have successfully addressed in the past. (Rayner, 2010) Rather than focusing on the fear of climate change, he suggests that more could be accomplished more quickly by focusing on action, getting things done.

Rayner proposes a three-tiered approach. First, focus on the local and start taking action. Second, begin with adaptation to make the benefits of action concrete, and to bring benefits to humanity into the present. Third, take a bottom-up approach to mitigation using markets and energy modernization. In this construct, Rayner suggests that nations ought to focus on research and development, something unlikely to proceed quickly or well solely at the local level, and that nations have historically proven to be good at.

Norgaard, like Rayner and Farber, also takes up community level responses to climate change. (Norgaard, 2011) Her study of a Norwegian village, using ethnographic methods, found that there was a profound "social organization of denial" about the local manifestations of climate change. Her conclusion: like Rayner, communication and contextualization are key. Making the global local, and vice-versa was crucial to moving forward. Finding new ways of knowing is essential to breaking through.

However, the notion that rejecting national and international scales of action, and assuming that local initiatives will achieve global change in the short term, is clearly in conflict with the overwhelming and ongoing presentation of an impending climate change catastrophe (Hansen, 2012; Muller, 2012) Local initiatives may be (and are) exciting; and the picture of people all over the globe pulling together as never before (Hawken, 2007) is compelling. The fact remains, however, that presenting a hopeful dimension of the climate change issue remains a daunting global challenge.

MORALS AND ETHICS

If a scientific basis for validating local responses to climate change isn't enough, there remains an additional dimension that some are exploring: a moral basis. Speaking in moral terms about complicated global issues is, in fact, proposed by some as the basis for "reframing" the debate. (Fahey, 2012) However, it takes practice and is something that our society, as a whole, isn't as conversant with as it needs to be.

Moore, Nelson, and their contributors explore the foundations and need to rethink human action in the world from a moral, ethical perspective. (Moore and Nelson, 2010) In essence, facts are a necessary but not sufficient or compelling basis, on their own, to motivate us to act. They go further to suggest that our desire to use facts as a neutral basis for decisionmaking is distracting us from recognizing and remembering the foundations of what makes human action in the world distinctive and essential:

"...we need moral convictions—ideas about what it is to act rightly in the world, what it is to be good or just, and the determination to do what is right. Facts and moral convictions together can help us understand what we ought to do—something neither alone can do."

(Moore and Nelson, 2010, page xvii)

Note that this is not about reframing issues, but about reconnecting with what makes humanity truly human, and with the responsibilities that this carries with it in the world we've come to know. It's not about a simple recognition of the

facts, but a profound recognition of our moral obligations as human beings. This viewpoint provides, literally, a moral high ground for explaining not only our circumstances, but more importantly, the agency for hope.

Loeb echoes these thoughts with his association of hope with the human impulse to make things better. (Loeb, 1999(2010)) For Loeb, hope is resident in what we do together, and how we understand ourselves to be part of both humanity and the world around us. In a second book, he writes that hope is an antidote to the fear that threatens democracy itself, and that it's not just a way of looking at the world, but a way of life. (Loeb, 2004, page 4) We draw hope and strength from what we do together and from what we see others doing, and in so doing, we legitimize our own hope through accomplishment.

HOPE AND ACTION

Orr takes up this connection between hope, action, and humanity when he identifies the things needed to be done as the “sensible” course of action. (Orr, 2011, page, xv) Orr writes that “hope is a verb with its sleeves rolled up.” He views hope as carrying with it an imperative to act, making it different from mere optimism and quite different from despair. Whereas optimism assumes an outcome, hope is about changing the likely outcome. Orr writes:

“I know of no good reason to be optimistic about the human future, but I know many reasons to be hopeful.” (Orr, 2011, page 324)

Orr associates courage with hope, in much the same way that Moore and Nelson associate morals and ethics with the human responsibility to be truly human in the world. Orr looks at optimism as the easy way out, and underscores the difficulty and hard work needed to dream and act based on hope... to authentically have hope in this world.

Orr views most of what we're doing to be “green” as “walking north on a southbound train”. We make progress while overall we are traveling backwards. Or, as I've reminded my students, though we'd like to believe that a Diet Coke will cancel out that chocolate éclair we had at lunch, it won't. Orr is pleased to see local initiatives in

response to climate change; but he is much less optimistic about their collective global significance. He believes that there is little margin for error and no time for delay. Climate change is emblematic of a deeper lack of regard for life - something that local initiatives don't address. For him, power is on the side of keeping local initiatives local, and therefore marginal.

What does Orr propose? *His prescription is planning*: to present and engage people in a higher vision for the future (perhaps the moral vision of Moore and Nelson) than the one we currently have. He concludes:

“Humans have a remarkable capacity to screw up good things. But it is still possible to create a future that is a great deal better than what is in prospect. Ironically, what we must do to avert the worst effects of climate change are mostly the same things we would do to build sustainable communities, improve environmental quality, build prosperous economies, and improve the prospects for our children. ... Hope, authentic hope, can be found only in our capacity to discern the truth about our situation and ourselves and summon the fortitude to act accordingly.” (Orr, 2011, page 332)

BACK TO PLANNING

That planning is the basis for moving forward, and that much of what we need to do can be found in examples of what people say they want, is precisely the message put forth by Peter Calthorpe. (Calthorpe, 2011) Calthorpe breaks down the global carbon emissions challenge and then addresses it systematically through the kind of sustainable community building that Orr issues as his challenge. Like Orr, Calthorpe presents sustainable urban development as what people say they want, and actually create when given the chance. However, Calthorpe goes further, suggesting that sustainable urban form is not only the most desirable outcome for our cities, but is also the least-cost option for addressing carbon emissions, a central driver of climate change.

Like Calthorpe, Newman, Beatley, and Boyer associate resilient cities with what is needed to survive crises, particularly environmental crises. (Newman, Beatley, and Boyer, 2009) They present hope as a choice and as what provides confidence



Figure 2: Mt. St. Helens eruption

and strength. For these authors, hope is what sustains resilience, and building in resilience is what is needed to cope with changes in global environmental conditions. They present strategies for achieving resilience that merge Calthorpe's prescriptions for urban form with the suggestions of Rayner, Norgaard, and others for enlisting communities in addressing climate change: make it local, use prices, learn as you go, engage and discuss, build green, and demonstrate your principles with all public projects.

For planners, the implications here are striking. Planners need communities to embrace the future with a sense of hope if that future is to be made materially different than current circumstances. Baum and Norgaard, however, remind us that community exerts a profoundly conservative impact on planning, since belonging to a community often carries with it a desire to forestall progressive change.

According to this analysis the ability to imagine the future only as a diminished version of the present leads to inaction. When the balance tips towards believing that it's too late, then even taking steps towards limiting carbon emissions, and adapting to climate change, seem to be no more than a salute to despair. However, the future is central to what planning is all about. For planners, finding and understanding the social construction of hope is a profound challenge.

FOUR THINGS WE CAN DO

What can we do?

Broadly speaking, it will take time. This is not a situation that will be turned around by a simple finding of fact or a quick burst of rhetoric. The future is looking more complicated, and our consideration of the future will likely become more challenging. The frontier of the future is hardly



Figure 3: Mt. St. Helens – the emergence of a new landscape

closed, and that in no way diminishes the moral and other requirements for doing what we can now to avoid future harm.

To move things forward, there are at least four potentially useful avenues that flow from this discussion. First, we need more philosophers to join the theorists, and we need to draw more from the humanities to balance the social sciences. If planning is a basic human activity, the challenge for planning is to keep the focus on what makes us most human, and on hope as the essence of what we articulate when we plan.

Second, we should become more engaged with real examples of hope arising in the face of despair, and challenge ourselves to avoid getting stuck on ideas about the future that may be not just fruitless, but wrong. Solnit writes, for example, about “redemption amid disruption” in her chronicles of the emergence of community in a profound way when catastrophe happens.

(Solnit, 2009) In her case studies of communities emerging in the wake of disaster, she notes that the profound human desire for community and connection blossoms when old relationships get overwhelmed and set aside, particularly in the face of disaster.

For those of us in the Pacific Northwest (USA), a more local example can serve a similar purpose. In May, 1980, Mt. St. Helens erupted, blowing away over a thousand feet of mountain, leveling 230 square miles of forest, and profoundly altering a presence on the horizon that literally anchored a sense of place for millennia. The volcanic eruption and subsequent destruction was described as no less than a catastrophe of epic proportions. However, in the intervening 30+ years, something equally profound has occurred: what had been assumed to be a landscape of violence, destruction, and devastation was rapidly becoming something else. (Goodrich et al, 2008)

From the perspective of hope and despair, Mt. St. Helens is a story of profound hope: a new, interesting, and rewarding world opening up in ways that reward curiosity, engagement, and action. The volcano and its blast zone are huge, overwhelming human scales of thought and action. There is no escape. At the same time, its rapid evolution and renewal is opening up new opportunities for the relationships of people and communities to the landscape, and for our ideas about what's possible.

Like climate change, the science can tell us some things, but it can't help us understand our values in relation to the place, the mountain or to its eruption. On a smaller but still impressive scale, the Mt. St. Helens experience gives us a first hand way to experience the value of caring for the future of a place that is in no way like what we thought it was. Consequently, Mt. St. Helens stands as an example of how our view of a future without hope, like the landscape itself, can change in profound ways as the world that emerges brings with it things that we didn't understand or expect.

Third, planners need to take a fresh look at participation. The research seems to suggest that there is more hope in community than in individual action. We're all in this together, though it might not always seem that way in a charged political environment where a sizable group is loudly working to deny that anything is happening at all. How can engagement in planning con-

centrate more on building a community of interest focused on the future? How can engagement become less bureaucratic and more empowering – even enjoyable? What tasks do planners need to accomplish, and how can they accomplish them without killing the potential for broader, longer run discussions of the future and the steps we, as communities, can take together?

Fourth, intertwined in all this are the paired themes of thinking and doing, thought and action. Planning without action is not up to this or any task. We need to see results from what we do. The apocryphal "plan on the shelf" exists when we plan without acting, and too much of our planning happens without directly leading to the change that was promised or believed to be necessary.

It might be useful, then, to take a step back from our portrayal of planning as a profession, to embrace a different notion: planning as craft. Professions rest on specific knowledge, and restricting access to that knowledge. Craft, on the other hand, results from the learning that occurs by doing. More than ever, planning- and (by definition) planning education -, need to develop contemporary means for synthesizing the visionary, pragmatic, and idealistic foundations for identifying a future worthy of collective hope. Planning might benefit from making craft a centrepiece, and by so doing, we might be enabled to make plans which are not just vessels for hope, but tools for acting on hope as well. ■

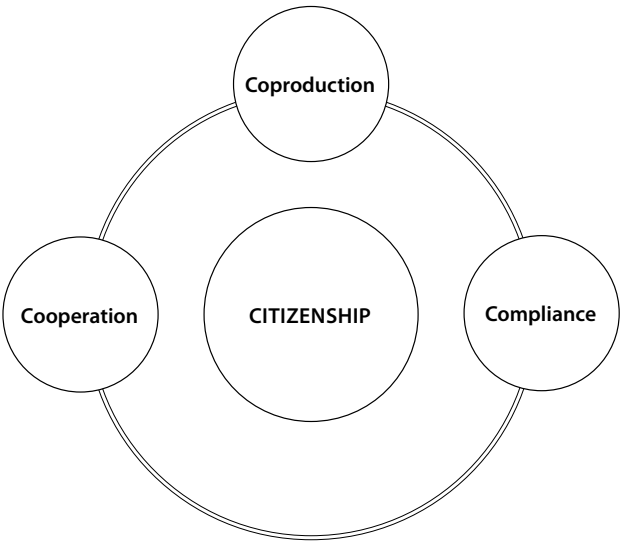


Figure 4: The three Cs of citizenship

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THE INFLUENCE OF PLANNING STANDARDS ON THE LONG TERM SUSTAINABILITY OF SETTLEMENTS: EVIDENCE FROM DAR ES SALAAM

Wolfgang Scholz · Janepher Shedrack

Tanya Dayaram · Peter Robinson

Dar es Salaam in Tanzania is among the fastest growing cities in Africa with 70% informal settlements. They have emerged because the statutory system cannot provide sufficient buildable land due to inappropriate inherited planning standards from colonial times and inefficient land allocation procedures. The authors pose the hypothesis that a residential plot provides income and employment generation which can be supported or hindered by planning regulations. Their study examines the land use changes taking place in both planned and informal urban settlements in Dar es Salaam. Its aim is to learn to what extent the formal planning regulations are applied and efficient; which current development processes are on-going; how these processes impact on the livelihood strategies of the residents; and which land use conflicts typically take place due to the lack of development control. Durban, in South Africa, serves as a comparison case where the last twenty years has seen the development of a more flexible planning legislation...

CONTEXT AND PROBLEM

Dar es Salaam in Tanzania is among the fastest growing urban agglomerations in Africa, with about 150,000 new inhabitants per year. The city's population has increased from 100,000 in 1952 to 2.5 million in 2002 and to around 4 million in 2013. Figure 2 shows the spatial patterns of this growth. At the time of independence in 1963, the city had an urban radius of 6 km. The 1980s witnessed an increase in urban development and the emergence of informal settlements. By the 1990s, urban development, much of it informal, had spread in a finger like pattern for up to 40 kms along the main roads to the hinterland (Basteck et. al. 2007).

The products of the prevailing planning system are low density settlements with mainly single storey houses. Informal settlements have emerged due to the shortage of official building land, to the extent that today over 70% of Dar es Salaam residents live in informal settlements. These have emerged primarily because the statutory system cannot provide sufficient buildable land for the demand. Inappropriate planning standards and inefficient land allocation procedures are serious bottlenecks. Most urban inhabitants who aspire to own a house in urban areas have to buy plots on the informal land market. The development of informal settlements does not, however, guarantee functional settlement structures, efficiency in the provision of basic infrastructure and adequate security of tenure (Kombe and Kreibich 2007).

For urban residents and the poor in particular, a residential plot represents income, employment generation opportunities and essential livelihood assets. However, income generating activities on the plot can be supported or hindered by planning regulations. Additional costs



Large scale investment against planning regulations in a former village close to Dar es Salaam which is now under high development pressure. Source: Wolfgang Scholz, 2011



Figure 1: Location of the two case study cities Dar es Salaam and Durban.

Source: own construct based on Eric Gaba - Wikimedia Commons 2009

can be created or avoided depending on what planning regulations and standards are being applied. Overly rigid standards, like exclusively residential zoning, can have a restrictive impact on livelihood strategies of urban settlers since it can make income generating activities difficult to execute. On the other hand, the absence of any formal regulation in informal settlements can also hinder income generating activities due to *inter alia* restrained accessibility when densities increase or when land uses are in conflict. The absence of regulations can also have a negative impact on livelihoods due to unhealthy living conditions and overcrowding. In some areas uncontrolled densification has occurred (Sheuya

2004, Kombe and Kreibich 2007, Scholz 2011).

The main problem with the growth of Dar es Salaam is its spatial expansion and the inability of the regulatory systems to manage effectively. The inherited planning system (mainly unchanged since the 1950s) and colonial era plot size standards (official minimum plot size is 400-800 m²) is perpetuating urban sprawl, and is a relatively weak instrument for managing rapid urban development (Ambe 1999, Kombe and Kreibich 2007).

This paper is based on a collaborative research study undertaken over the past two years (2010-2012) by the Planning Departments of the Technical University of Dortmund, Germany, and Ardhi

Source: based on Briggs, Myamfape and Shand; revised based on ITC, Enschede and 2002 aerial imagery

developed under more flexible planning legislation during the past 20 years. This paper identifies some critical questions and issues for planners, that will be of considerable relevance to the planning of other rapidly urbanising areas.

Research process

The first phase of the research analysed formally planned and informally developed settlements in Dar es Salaam. The aims were to learn to what extent the formal planning regulations are applied and efficient; which current development processes are on-going; how these processes impact

TYPOLOGY OF CASES

Site-and-service scheme of the 1970s

A1: Planned settlement under high development pressure:
Sinza B

New planned development areas at the periphery

A 2, A 4: Developed according to current standards:

Bunju and Mbezi Beach

and A 3: Planned settlement with reduced standards:

Chamazi

Upgraded informal settlement

B 1: Regularised informal settlement:
Sandali

New informal settlement

B 2 and B 3: Informal densification of a former village:
Kawe and Gongo la Mboto



Figure 3: Typology and location of case study settlements

on the livelihood strategies of the residents; and which land use conflicts typically take place due to the lack of development control.

The focus of the first phase was to explore current processes of land use changes, densification, the livelihood needs of the residents in terms of space and land use as well as the impact and efficiency of statutory planning regulations including land use related conflicts. Land use conflicts in planned residential areas versus the uncontrolled/unguided mixed land use development were examined, and the negative effects of such developments on the adjoining land uses, residents and the overall functionality of seven settlements were studied. The typology of the selected settlements and their location in Dar es Salaam are shown in Figure 3.

A combination of methods were used during the fieldwork, namely expert interviews to iden-

tify areas inside the case study settlement for in-depth survey, followed by intensive surveys and land use inventory, semi-structured interviews with residents and operators of local businesses. The selection of interviewees focussed on identifying information rich cases or cases with a high conflict potential, where developments and land uses arise that are associated, for example, with noise and dust pollution or the production of solid and liquid waste. Problems were largely associated with activities such as bars, small scale garages and metal working firms, retail business and function or congregation halls. Most of these land uses have emerged against official zoning regulations and land use change regulations but they contribute to the income generation of the operators and meet the demand of clients. However, they can conflict with livelihood activities of the surrounding neighbours.



Figure 4: Changes in Sinza (2002-2012).
Source: fieldwork authors, 2011



Figure 5: Sinza land use (2012).
Source: author's fieldwork, 2011

Case studies

Sinza

Figure 4 shows the Sinza study area in 2012, and the changes that have taken place since 2002. About 10% of the current building stock are new buildings or extensions of existing buildings in the last decade.

Figure 5 shows the 2012 land use. The former planned residential area has become more of a mixed use area. Location preferences of the oper-

ators of commercial activities along the main roads are associated with the desire to ensure accessibility and proximity to the major consumer flow channels. However, the resulting functional structure of the settlement is a clear contradiction of the official neighbourhood design concept in Tanzania inspired by Clarence Stein (1929), which designates land for communal services and commercial uses at the centre and not at the periphery of the neighbourhood.

*Photograph 1***Small corner shop**

Some corner shops and small workshops have no negative impact. They provide services for the neighbourhood and do not disturb residents. As such these are respected activities.

*Photograph 2***Bar in Sinza**

Others, such as outdoor bars, have a negative impact on neighbours due to noise at night and parking of cars.

*Photographs 3 and 4***Land use changes on a planned open space**

Planned open spaces, which had not been developed as such, have now become used for commercial activities such as repair workshops and canteens for the workers. This is evidence that not enough space was originally designated for commercial activities. The fieldwork revealed that in many instances neither the residents, nor the operators, nor the local authorities, were aware of existing regulations.



The outcomes are not always negative as there was evidence of operators of businesses and workshops being aware of the disturbances they cause (such as deliveries which block entrances for a time) and recognising the need to negotiate arrangements with the neighbours. Such a response was, however, not done in the case of bars. The research also found that political influence and economic power seem to be the key issue for land use change decisions and permits to construct multi-storey buildings ignoring the interests of the neighbours (authors' fieldwork, 2011).



Source: Wolfgang Scholz

Text Box 1:

The owner of a large function hall in Sinza, having realised that his business can only run smoothly if the neighbours are comfortable, has recently reconstructed the premises with a parking space on the ground floor and an air conditioned sound-proof hall on the first floor. Although the high investment costs of the entire construction has increased, it makes sense, since he will not face complaints from the neighbours and can run the business smoothly.

Another example from Sandali (see Photograph 5), however, displays a different picture where workshops for used oil recycling are operating in a residential backyard. The surrounding residents have complained about the pollution of this dangerous activity but without any reaction from the operators. The sub-ward leader stated that he is not able to stop these activities since the operators are tenants only, and the landlord is living outside the settlement and therefore not accessible for the local leader. Only after termination of the current valid rental contract, would the local leader be able to guide new activities on the plot. This case shows the limitation of locally made decisions or local regulatory systems which are often based on a lack of knowledge and awareness, as well as being difficult to enforce (authors' fieldwork, 2011).



Photograph 5
Used oil recycling workshop
in the informal settlement of Sandali.
Source: Wolfgang Scholz

The present land use results in a number of conflicts, as illustrated in Photographs 1, 2, 3 and 4.

The outcomes are not always negative as there was evidence of operators of businesses and workshops being aware of the disturbances they cause (such as deliveries which block entrances for a time) and recognising the need to negotiate arrangements with the neighbours. Such a response was, however, not done in the case of bars. The research also found that political influence and economic power seem to be the key issue for land use change decisions and permits to construct multi-storey buildings ignoring the interests of the neighbours (authors' fieldwork, 2011).

Sandali

Land use changes in Sandali, an upgraded informal settlement, are shown in Figures 6 and 7.

It was interesting to note that the amount of change (about 12% new buildings, of which 5% were new structures replacing old buildings and 5% were extensions) was similar to that in the planned area of Sinza, as were the range of mixed uses. The large number of changes in the building stock in Sandali is also caused by an infrastructure upgrading project (storm water drainage and access roads) which has now attracted the middle class to move in. Once again violation of regulations was common and there was no development control. Our finding, therefore, is that there is not much difference in development control between a planned settlement (Sinza) and an informal settlement like Sandali.

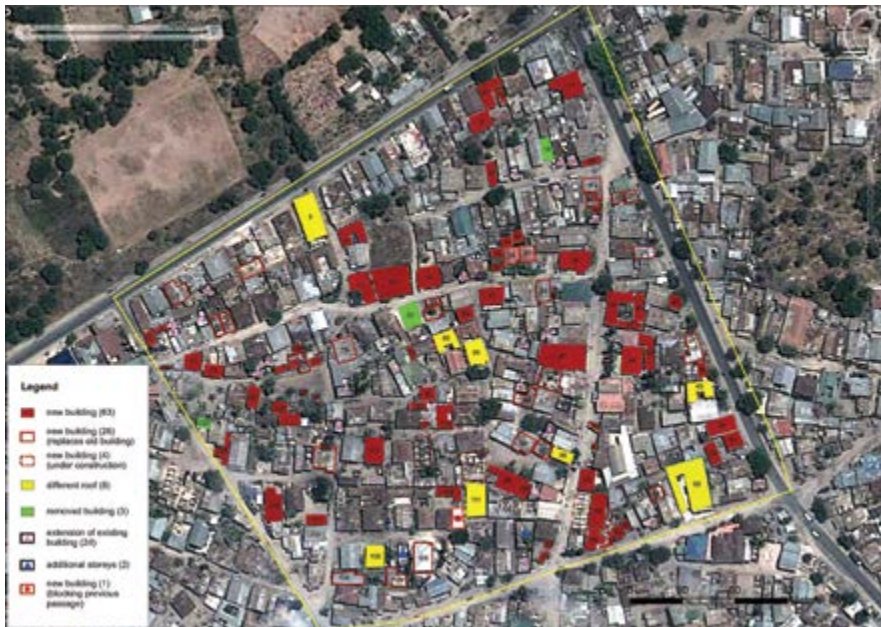


Figure 6: Changes in the informal case study settlement of Sandali (2002-2012).

Source: authors' fieldwork, 2011

Figure 7: Land use in Sandali (2012).

Source: authors' fieldwork, 2011



Photograph 6

Evidence of middle class households moving in after infrastructure and access was provided.

Source: Wolfgang Scholz

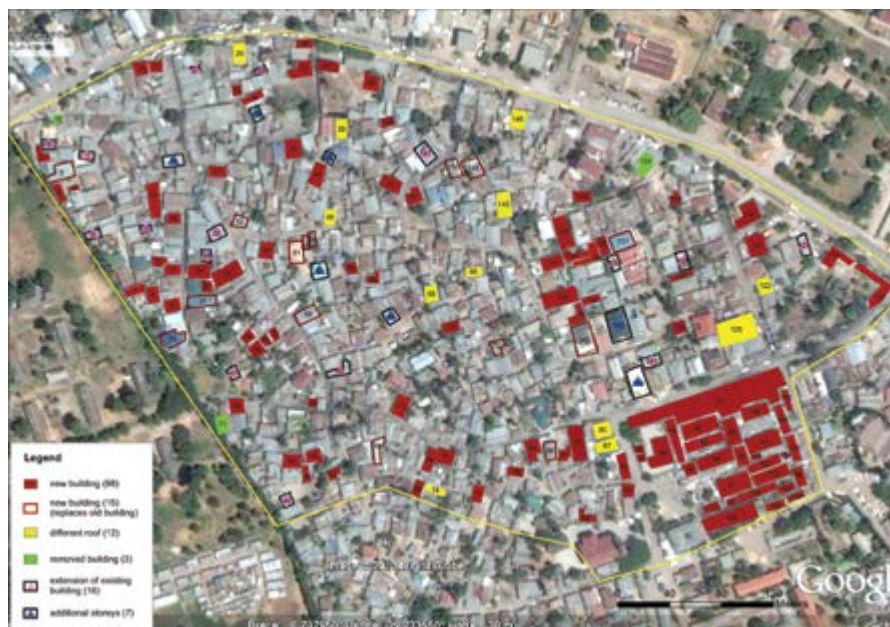


Figure 8: Land use changes in Kawe (2002-2012). Source: authors' fieldwork, 2012

Figure 9: Land uses in Kawe (2012). Source: authors' fieldwork, 2012

Kawe

Kawe was a village once located on the outskirts of Dar es Salaam. Changes in land use between 2002 and 2012 are shown in Figure 8.

The patterns are strikingly similar (10% new buildings; 2% replacing others and 2% extensions). Again the commercial activities are located along the main access route into the settlement. However, the new market complex at the right bottom corner had an influence on the number of new structures. Without these, the percentage of new buildings is lower which can be explained by the already high density and less attractive location. Photographs 7 and 8 illustrate the impacts of densification.



Photographs 7 and 8

Impact of uncontrolled densification

Showing the impact of commercial activities replacing residential uses and of uncontrolled densification when multi-storey building takes place.

Source: Wolfgang Scholz

RESEARCH FINDINGS AND IMPLICATIONS

Conflicting land uses

The fieldwork revealed that disturbances for residents, both in planned and informal settlements, caused by conflicting land uses are mostly related to noise from bars, music halls and religious buildings, less from commercial activities like workshops or repair workshops. The main reason is that the latter operate during daytime when residents are out at work while the first ones also operate at night and weekends. Income generating activities such as shops, pharmacies, tailoring shops are generally more tolerated, while leisure activities, such as bars, and places of worship are less tolerated by residents because of their potential to cause disturbances. Problems in the settlements are mainly related to uncontrolled changes of the land use and the tendency toward mixed uses. Some of the mixed uses have a negative impact on neighbouring settlers (e.g. bars etc.) while small corner shops or small scale workshops have little or no significant negative impact (see Photographs 1, 2, 3, 4 and 5).

Planned open spaces or road reserves are mainly used for commercial activities instead of green areas. The operators of workshops who have encroached upon communal open space in Sinza (see Photographs 3 and 4) have started informal negotiations and agreements for a co-existence with the surrounding residents. The operators are not only aware of the disturbances but also of the fragile legal status of their presence. In most cases, only a temporary permit was issued by local authorities and, therefore, they try to avoid open confrontation with their neighbours.

In another case of a bar in Sinza with loud music after midnight, adjoining settlers won a court case on noise reduction; however, it was only successful for a short time and music after midnight started again. Sinza is increasingly becoming an area for commercial activities with hotels, bars and groceries which often disturb the residents (see Text Box 1)

Planning regulations and decision-making

The interviews in the case study settlements, both planned and informal, revealed that there is hardly any sensitivity or adherence to planning regulations and land use categories among the

residents. Only plot boundaries of neighbours are respected. Developers are only aware that structures can be demolished if built on the road reserves; however temporary encroachments, like the tables and chairs of bars, are common.

Most respondents state that they lack knowledge about planning regulations and the potential positive or negative impacts of the regulations. This is a contradictory finding since, in Sandali, planning instruments and urban layout plans were used during the formal regularisation process. In that process, intensive surveys, consultation with residents were undertaken and demolition of buildings executed to facilitate the expansion and construction of access roads and storm water drainage.

There is also lack of awareness of planning regulations at the institutions at the grassroots level of the Government (Mtaa, ward level). For instance, in the sub-ward office (Mtaa) of Sinza the copy of the land use and layout plan was missing. It seems that in the understanding of residents as well as local leaders, planning only focuses on the change of land use at the plot level approved individually by the local leaders and not according to the general planning scheme. Thus, individual decisions do not correlate to the existing plans (Sinza) or general regulations (Sandali, Kawe). Permission to build, extend or to change the use of a building are issued by local leaders based on the political influence of the applicant overruling a planner's technical statement and thus in disregard of public interests. Therefore, conflicting land uses easily emerge. Such permissions focus only on the plot itself, and ignore the neighbours' plot and the construction on it (concerning size, height, setbacks and land use).

Web of stakeholders and nature of their interests

In seeking effective instruments to guide land use changes (for mixed and commercial uses and densification), planners need to be aware of the complex web of stakeholders in settlements. Furthermore, they need to recognise that each is aiming to optimise particular interests and that each can contribute to urban development in different ways, positive and negative. These stakeholders may be categorised as users, producers, regulators and politicians. Table 1 below

illustrates how this can be applied in the cases of Sinza, Sandali and Kawe.

Obviously, the interests of consumers and producers are similar and backed by politicians who often overrule the administration and its role as caretaker of the common good. Those residents who are not consumers at the same time (for example, residents who do not frequent bars), together with the planners, are in a weak position.

Differences between planned settlements and informally developed areas

There seems to be little difference between planned and informally developed settlements in terms of adherence to planning and building regulations. Uncontrolled building construction, extension, in-fills and change of land use persist. The land uses are likely to be similar because of processes of gentrification and the pressure of the real estate market on these settlements which are often located in attractive areas of the city. Therefore, the distinction between informal and planned settlements is becoming rather an administrative term only, with less relevance on the ground.

However, the planning authorities both at national as well as at local levels still consider informally developed areas as areas where no regulations can be enforced.

Congestion is seen as one of the key future challenges in Sinza, especially because many individuals would like to build multi-storey buildings on the same plot that is today occupied by a single storey house. In Sandali the new, modern buildings which are replacing the old structures made of rather poor building materials are seen as a symbol of a better future. Most new buildings are fenced like in Sinza, which will create a higher "visible" density, may block footpaths since former shared space between the buildings is becoming private space behind walls and can hinder ventilation. In Kawe, the density in terms of plot coverage is already very high and new multi-storey buildings will compound congestion and limited accessibility and thus will cause more problems in the future.

When comparing the area coverage ratio (see Table 2), it becomes obvious that formally planned areas under development pressure like Sinza do not differ from informal settlements like Sandali or Kawe. Only the chess board layout of planned

| Stakeholders | Activities | Nature of interests | Contribution |
|--|--|---|--|
| End users/ consumers, Residents | Consumption of services, permanent “users” of the area | Getting maximum satisfaction, easy access, decent neighbourhood, services available | Paying as little as possible for the services, rare cases of interventions |
| Producers / Developers | Investment, high return | Making a profit | Investment in services, e.g. function hall, bars, offices |
| Regulators | Guiding development, harmonising development | Seeing people getting services, according to the rules and regulations | Enforcing the laws of the country, establishing conditions for orderly development |
| Politicians | Political power | Winning elections, economic development of own area | Issuing permits and licenses to foster economic development without legal base |

Table 1: Web of stakeholders and nature of interests.

Source: authors' construct

| Settlement | Area coverage ratio 2002 | Area coverage ratio 2012 |
|------------|--------------------------|--------------------------|
| Kawe | 0.51 | 0.69 |
| Sinza | 0.57 | 0.61 |
| Sandali | 0.59 | 0.73 |

Table 2: Changes in area coverage ratio (2002 – 2012).

Source: authors' fieldwork 2011, 2012.

Sinza and its wider access road limits the densification processes.

Both planned and informally developed settlements undergo processes of land use changes, densification and potential gentrification following the rules of the real estate market and seek more economic land use.

Misleading concept of plot sizes as land use control instrument

Although some planned areas were designed as high density residential areas for low income groups, the urban poor as the target group has not benefitted. The high density plots (400-800m²) are too large and thus too expensive for the low income households. On the informal land market, poorer residents opt for a plot of about 100-200 m²

which reflect their income status and affordability (authors' fieldwork).

Today, the inherited colonial urban land use concepts and standards such as plot size categories and the resulting zoning in residential neighbourhoods based on high, medium, low densities have not much impact on settlement development. Either many middle income residents occupy high density plots designed for the urban low income groups or these plots are used for commercial activities. Setbacks and allowed maximum plot coverage regulations are ignored (Sinza and Kawe). Official high density plots are still too big and smaller plots would be ideal for the poor. This could be the case if they are not fenced and setback requirements are observed (authors' fieldwork, 2011).

Land use categories do not support residents' livelihood strategies

The majority of the residents in Dar es Salaam are poor. However, as noted earlier there are no newly planned areas dedicated to low income residents. The rigid land zoning concept and land use categories (residential, commercial, and residential cum commercial etc.) does not reflect the reality of the residents' need for a flexible livelihood including changing employment and income generating activities.

Commercial uses are necessary in settlements to provide income and services for residents. However, there is a need to regulate and designate them in specific suitable areas in advance before they emerge uncontrolled.

There is no clear concept for the distribution and localisation of the emerging commercial and service related activities. They are spread haphazardly throughout settlements without a proper planning concept. This calls for the review of the current zoning concept which provides space for retail business in the centre of a neighbourhood regardless of the predominant traffic flow which is along the main roads between neighbourhoods. Thus, planning should consider locating disruptive uses like bars, warehouses, workshops along the main roads at the fringe of the neighbourhood on the one hand, and restricting the centre to purely residential uses. This means the spatial reversal of the neighbourhood design concept used in Tanzania and the development of new land use categories (disruptive/non-disruptive commercial activities) in combination with plot coverage rules and increasing setbacks according to the height of the building (authors' fieldwork).

Our job as planners is to provide land with suitable attributes including location, infrastructure, accessibility, and affordability. At the same time, planners need to understand how developers think, and have suitable instruments to guide them.

COMPARISON WITH SOUTH AFRICA

The findings of this first phase were used to draw on South African experience, with similar formal and informal settlements in Durban which had been developed under more recent and flexible

planning legislation. The most relevant aspects relate to interim legislation and approaches, the introduction of flexibility around standards and establishing negotiation between stakeholders as good practice in settlement development.

Interim measures used in South Africa during the transition period 1994 – 2000

As it became apparent that the old order was changing and that much of the legislation relating to Town Planning and the associated regulations and (near mandatory guidelines) would be replaced, officials started to become less stringent in their application of the existing planning legislation and more amenable to different and new approaches. The most notable and influential of these were integrated development planning; adoption of a variety of modes of housing delivery; the upgrading of informal settlements; and a shift away from rigid separation of land uses. All these had been tried and tested in other developing countries, some approaches and best practices dating back to the 1970s.

Invariably it took time to dismantle existing legislation and replace it with new laws that would reflect the post-colonial / post-apartheid ethos of the new South Africa. There was thus a period of *de facto* legislative vacuum, which in turn created a window of opportunity for town planners and other built environment professionals to experiment and adapt approaches, norms and best practice from other developed and developing countries to South African conditions so as to promote the integration of fragmented parts of the cities.

Guidelines for layout planning

A critique of the prevailing approaches to layout planning in South Africa up to the early 1990s found that these failed to respond to settlement conditions peculiar to South Africa. Furthermore, the widely used guidelines, known as the 'Blue', 'Green' and 'Red' books, were driven by the need for technical efficiency and engineering standards. This resulted in low density, starter houses that did not conform to human scale, nor cater for low income communities (CSIR, 2000).

In response Behrens and Watson (1996) produced a groundbreaking alternative approach entitled *"Making Urban Places. Principles and*



Figure 10: Aerial view of the Cato Crest Multi-purpose Centre

Guidelines for Layout Planning". This manual provided a set of non-prescriptive guidelines to generate a minimum set of spatial interventions as opposed to comprehensive regulations. The guidelines cover the following issues: roads, intersections, social facilities, urban blocks and plots. The guidelines also promote higher densities of 50 to 100 units per hectare. In the context of the present research, the detailed account of advantages and disadvantages of a small plot (100 m²) versus larger ones of (200 to 500 m²) is of interest.

Planning legislation during transition

Two planning acts were passed: the Less Formal Township Establishment Act 113 of 1991 (LEFTEA) and the Development Facilitation Act of 1995 (DFA). Both acts were applicable in all parts of South Africa. They did not repeal existing legislation but provided alternative routes to formally establish settlements. After 1995 private and

public developers could choose the most suitable of three pieces of planning legislation (the prevailing Ordinance, LEFTEA, or DFA) for their developments. All three legal routes were used by developers in the KwaZulu-Natal province and other provinces for new housing development (Republic of South Africa, 1991 and 2000). In 2000 the Municipal Systems Act formally introduced "integrated development plans" as the form of planning to be adopted by all metropolitan, district and local municipalities throughout the country.

Informal and formal settlements

There are several interesting examples of settlement development in Durban during the transition period (late 1980s to around 2000). Two in particular aimed explicitly to improve livelihoods and test new approaches. Besters' Camp, one of the earliest and most successful *in situ* upgrading

projects undertaken in Durban, happened at a time when local government structures had broken down. The Independent Development Trust filled this gap and was conceived as a transitional institution. Wiggins Fast Track was a green-field residential development in Cato Manor. This project pioneered a number of initiatives in planning, infrastructure, housing allocation and house construction, for example, higher densities and dual purpose access paths/storm water drainage channels. In both, Besters and Wiggins a number of new and innovative approaches were tested, such as negotiated standards for infrastructure, smaller plot sizes, mixed uses, clustering of businesses and facilities at points and routes of high accessibility.

Examples of best practice

Experience with urban development for low income households during the transition phase underlined the need for flexibility, negotiation and innovative planning. Selected examples of best practice in this regard relate firstly to the determination and application of service standards. Cato Crest Multi-Purpose Centre involved negotiation with the authorities responsible for different social facilities about space standards to enable a cluster (primary and secondary school, sports fields, library and community hall) to be located on the same 2 ha site (see Figure 10). KZN province subsequently took the approach further and produced two manuals providing guidance to formulate appropriate space and threshold standards for the full spectrum of social facilities (TPI, 2008).

A second best practice example highlights the vital (but often overlooked) role of project preparation in settlement development. This was pioneered in South Africa by an NGO called the Project Preparation Trust (PPT), much of whose work has been in KZN and Durban (Misselhorn, 2010). A third example of best practice is the eThekweni (Durban) municipality's Interim Services programme (2011), which aims to provide basic infrastructural services to informal settlements targeting 77 000 households in 166 informal settlements (Project Preparation Trust, 2011). This programme involves providing basic roads and footpaths, communal sanitation blocks, electrical connections to individual shacks and standpipes

for water supply in each settlement, as part of a city-wide informal settlement upgrading programme (also discussed briefly in Review 06; Misselhorn, 2010).

CONCLUSIONS AND WAY FORWARD

The research revealed that the current land use planning system in Tanzania, especially the plot size standards and zoning concepts based on stringent land use categories, are not suitable to guide the current development trends and cannot respond to the changing needs associated with the search for sources of livelihood.

Instead, planning regulations should rather address issues related to mixed land uses and mechanisms to guide the processes of densification and intensification in the settlements. While small scale enterprises, including land uses such as corner shops and workshops, find ways of negotiating with the surrounding neighbours, larger uses like open air bars or the unregulated densification processes with a too high plot ratio-and/or multi-storey buildings without appropriate setbacks are developed without taking care of the needs of the surrounding buildings.

Therefore, there is a need to adjust the planning system and practice towards suitable regulations which are appropriate to residents' needs and allow them to engage in different small scale income generating activities, but also to control conflicting land uses and larger constructions. In order to implement such regulations, there is a need for simple, transparent and codified norms which can be executed on the local level by officers and persons who are not skilled and well trained in planning related issues. In addition there is also a need for clear negotiation and decision making processes that ensure the direct involvement of the settlers. The South African experience with interim approaches may provide some guidelines about moving towards new planning legislation and standards. ■

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CROSS BORDER PLANNING AND COOPERATION IN A TRINATIONAL AGGLOMERATION AREA

Nicole Wirz Schneider



Figure 1: Activities of the International Building Exhibition:
discovering the trinational landscape

The International Building Exhibition IBA Basel 2020 marks a new milestone in cross-border cooperation. The focus is no longer on institutionalised cooperation, but on working together on joint tasks and projects across three national borders. IBA projects are launched with the aim of creating a social dynamic that will help to shape a sense of identity within the region. IBA Basel 2020 makes a conscious effort to highlight the tricky realities posed by a residential and economic area that is fragmented by territorial boundaries, but has nonetheless succeeded in forging close links in some respects. As such, it makes an important and unique contribution to cross-border regional planning. This article charts the evolution of this unique planning region and the international cooperation that has enabled IBA Basel 2020 to come into being. It then describes the principles and themes that underly the International Building Exhibition and looks at examples of some of the emerging projects.



A TRINATIONAL AGGLOMERATION AREA

Three European nations – Germany, France and Switzerland – converge in the trinational area around the Upper Rhine. Social, economic and cultural relationships between the individual areas in this region (north-west Switzerland, south Alsace and Baden-Württemberg) have transcended their own national boundaries to form one single metropolitan space that is home to people and businesses. Its main centre of population is the Basel metropolitan area, one of three such areas in Switzerland. Like the Geneva metropolitan area, it lies directly on the Swiss border. This urban centre has developed rapidly over recent decades, with further expansion expected in the decades to come. Today, spatial and infrastructure development and the lifestyle of the region's residents are no longer restricted by national borders. This is reflected in the way the local population's work, travel and leisure habits have changed.



Figure 2: View of the trinational agglomeration area from Basel, looking toward Germany and France, 2010

WHAT FORM DID CROSS-BORDER COOPERATION TAKE PREVIOUSLY?

The area has a strong tradition of actively addressing cross-border cooperation. Exactly 50 years ago, the REGIO BASILIENSIS association was formed with support from the state and from the business and scientific communities in Switzerland's north-western cantons. It was created with the aim of strengthening cooperation in the European border areas. The concept of forming an Association of European Border Regions was first mooted during the "International Regional Planning Conference" in Basel in 1965. Six years later, this led to the foundation of the "Standing Conference of European Border Regions". Since 1991, the existing regional committees of the Government Commission (Comité Tripartite and Comité Bipartite) have met as the "Franco-German-Swiss Conference of the Upper Rhine" (ORK). In 1995, follow-

ing a meeting of key political and business figures from the area, a trinational group was tasked with building up cross-border cooperation in the field of regional planning and urban development. As a result of this cooperation, the group of experts drew up a regional development strategy known as "Eine Zukunft zu Dritt" (Vision of a trilateral future) to serve as a basis that will underpin activities right up to 2020. The collaboration was institutionalised in 2007 with the establishment of the "Trinational Eurodistrict Basel" (TEB), a broad-based organisation with political representatives and the administrative bodies of the regional authorities in the three countries. Its committees develop joint strategies for key cross-border matters relating to regional planning, transportation and communication. Eurodistricts represent a special form of cooperation within the European Union, generally referring to a metropolitan region on the border between Germany and France. TEB

Karte 4: Ein institutionell fragmentierter Siedlungsraum
 Carte 4 : Un espace urbanisé institutionnellement fragmenté

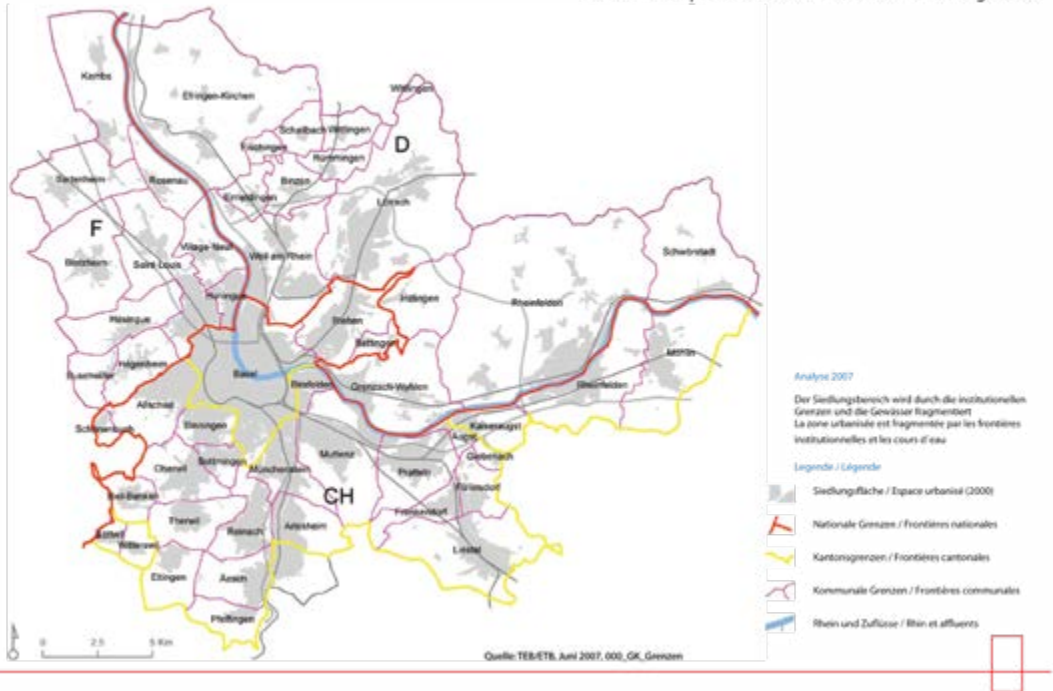


Figure 3: Trinational Eurodistrict Basel – territorial boundaries within the trinational agglomeration area (TEB, 2007)

was the very first trinational Eurodistrict.

Just two years later, in 2009, the International Building Exhibition in Basel – IBA Basel 2020 – was called into being by political decision-makers in the three countries. The IBA is designed to shape the development of this cross-border living space and business area over the course of a ten-year process. But one question remains. If institutionalised cooperation is already taking place throughout the Trinational Eurodistrict Basel, why is there any need for an International Building Exhibition?

WHAT IS AN INTERNATIONAL BUILDING EXHIBITION?

IBA is the German acronym for International Building Exhibition. The format used by IBAs sets them apart from institutionalised forms of cooperation. Originally developed in Germany as a tool for urban development and town planning,

IBAs have a tradition stretching back over more than a century. The first IBA took place in Darmstadt in 1901. Since then, Germany has hosted nine such exhibitions and plans are in place for more. To begin with, the IBAs were very much a showcase for architectural achievements. Internationally renowned architects were invited to develop new residential projects within a specified area. The essential character of the IBAs has changed a lot since then, shifting from being a purely architectural exhibition to promoting an integrated approach to urban development. They now use ideas and projects to trigger a process of transformation in urban and countryside environments, and across regions as a whole. The IBA Emscher Park created by the state of North Rhine-Westphalia between 1989 and 1999 to encourage revitalization in the area has played a central role in the history of the International Building Exhibitions, attracting worldwide acclaim. The program



Figure 4: The IBA Forum 2011 was staged as a trinational workshop where projects could be discussed

aimed to transform a region shaped and scarred by heavy industry into a vibrant environment with an ecological focus. This process involved changes in the economic structure and the provision of support for ambitious start-ups in close cooperation with colleges and universities. In promoting the structural transformation of an entire region, IBA Emscher Park marked a turning point in the history of the IBAs.

WHAT ARE THE DISTINGUISHING FEATURES OF IBA BASEL 2020?

“Growing together across borders” is the guiding principle of IBA Basel 2020, so it’s only fitting that cross-border cooperation is at the very heart of the event. However, the concept is by no means restricted to territorial boundaries, but also seeks to transcend historical, mental, cultural, transportation, urban development and planning barriers. IBA Basel is a catalyst for a new dynamic that uses viable projects to create an exemplary model of a cross-border, trinational region.

IBA Basel is making a conscious effort to highlight the added value offered by this trinational area. As part of this, it focuses on regional perspectives and aims to ensure the projects increase the sense of shared responsibility for the region. This will help to harness relevant potential and use this to generate value. Under the motto “liens et lieux partagés”, individual projects are expected to set an example by promoting closer links within the region and shared usage of this common space.

The organisational structure of IBA Basel 2020 sets it apart from previous IBAs. In the past, the IBAs encouraged international participation from urban planners, architects and landscape planners in the projects. In contrast, IBA Basel is blazing a new trail with an international organisational structure that includes regional authorities from the three countries represented in the trinational area. In other words, the IBA in Basel is the first truly international building exhibition.

WHY TO HAVE AN INTERNATIONAL BUILDING EXHIBITION?

In the specific context of regional development, there are three good reasons to hold an Inter-

national Building Exhibition:

- The programmatic methods used in the International Building Exhibition are well suited to this purpose. In a process lasting several years, the IBA projects – which are no longer restricted exclusively to construction plans – take shape within a designated timeframe, marking a series of milestones in the period up till 2020. This means resources can be pooled in terms of scheduling and finances. The approval process that ensures the quality of the projects is another crucial element of the programme. This process is monitored by the scientific board of trustees. Based on recommendations issued by the board of trustees at regular intervals – partly in the form of public hearings between the board and project owners – the projects are developed step by step, receiving intensive support from the IBA Office all the way through to the nomination stage and the awarding of the label.
- The suitability of the IBA as an instrument is borne out by the experience of previous exhibitions. Like the IBA Emscher Park, responsibility for a single region is the core theme. However, while the impetus in previous IBAs has tended to come from building and planning, the goal now is to explore a broader spectrum of application for the projects and thus to achieve results on many different levels. As part of this, the IBA addresses and pinpoints “burning” issues relating to urban and regional development. With a diverse range of projects in the fields of town planning, landscape planning, transport infrastructure and culture, IBA Basel is helping to create a comprehensive foundation for regional development. Due to its public call for projects and bottom-up approach, the IBA Office – which is independent of administrative structures – actively encourages the population, politicians, society and business to engage in wide-ranging discussions regarding the cross-border area.
- An International Building Exhibition is a non-formal instrument. Managed by an independent office, the IBA format thus has simplified procedures and, unlike formal processes, the IBA can react more flexibly and quickly, and with a stronger focus on projects. In contrast,

formal structures in the three countries have emerged from different understandings of the concepts of state and planning, and differ greatly in their decision-making processes. When formal planning comes up against limits, what's needed is a common desire for far-reaching cooperation in a specific living space. The IBA provides a platform for a shared intent that paves the way for the implementation of the projects. In some cases, this implementation requires a return to formal instruments and decision-making processes that fall under the auspices of various decision-making bodies on a cross-border basis.

WHAT IS THE SPECIAL CONTRIBUTION MADE BY IBA BASEL 2020?

What makes International Building Exhibitions really stand out is their unique character and their courage in embracing the experimental. With that in mind, Dr. Martin Jann, the director of IBA Basel 2020, has described the event as a "laboratory of cross-border cooperation". It is an opportunity to explore models for new approaches and gradually optimise projects with the aid of approval processes. IBA Basel seeks to develop a dynamic that will bring together people within the trilateral region and find intelligent ways to boost the value of the area.



SUMMARY

The need for cross-border urban and regional planning is the concept at the heart of IBA Basel and creates a model for the rest of Europe. In an area as densely populated and intricately structured as Europe, regional development doesn't stop at territorial boundaries. These national borders intensify the complexity of the cooperation. This results in shared planning and communication tasks that demand increased horizontal and vertical cooperation between a very diverse range of stakeholders. New approaches are therefore needed to accommodate the functional interrelationships that exist within a given space. With its projects, IBA Basel 2020 aims to shape the formation of the region while also taking into account the particularly fragmented nature of this specific area. This is backed by a desire to boost the value of the region, which all the various parties share.

Overcoming institutional and political barriers and establishing practical cooperation on specific projects with a range of different players is a major challenge for an undertaking on this scale. With that in mind, the IBA Project Show 2013 will be opened in parallel with a conference in Basel in October, which will host discussions on cross-border regional planning using the IBA and other specific examples from within Europe. This will generate additional insights for IBA Basel and help to intensify experience- and knowledge-sharing between comparable projects and tasks. Ultimately, projects like this strengthen regional planning perspectives and help to overcome systemic barriers in planning processes.

Figure 5: Opening of the public discussion of project proposals for IBA Basel 2020 at the IBA Forum –workshop for the trilateral area in 2011

Areas of activity and topics of IBA 2020. What are the key focal points?

IBA projects encourage links between individual areas and people in three areas of activity. These are the key focal points of IBA Basel 2020 and the projects it initiates.

Urban spaces. Combining mobility and urban development.

This parallel theme focuses on a dedicated exploration of built-up areas, their links with transport arteries and the creation of a stronger urban identity. It supports projects that set the standard when it comes to linking innovative mobility options with high-quality town planning. In a bid to promote the sustainable development and protection of country-side areas, the main objective here is the agglomeration of existing urban spaces.



Landscape areas. Identifying and opening up the qualities of open space.

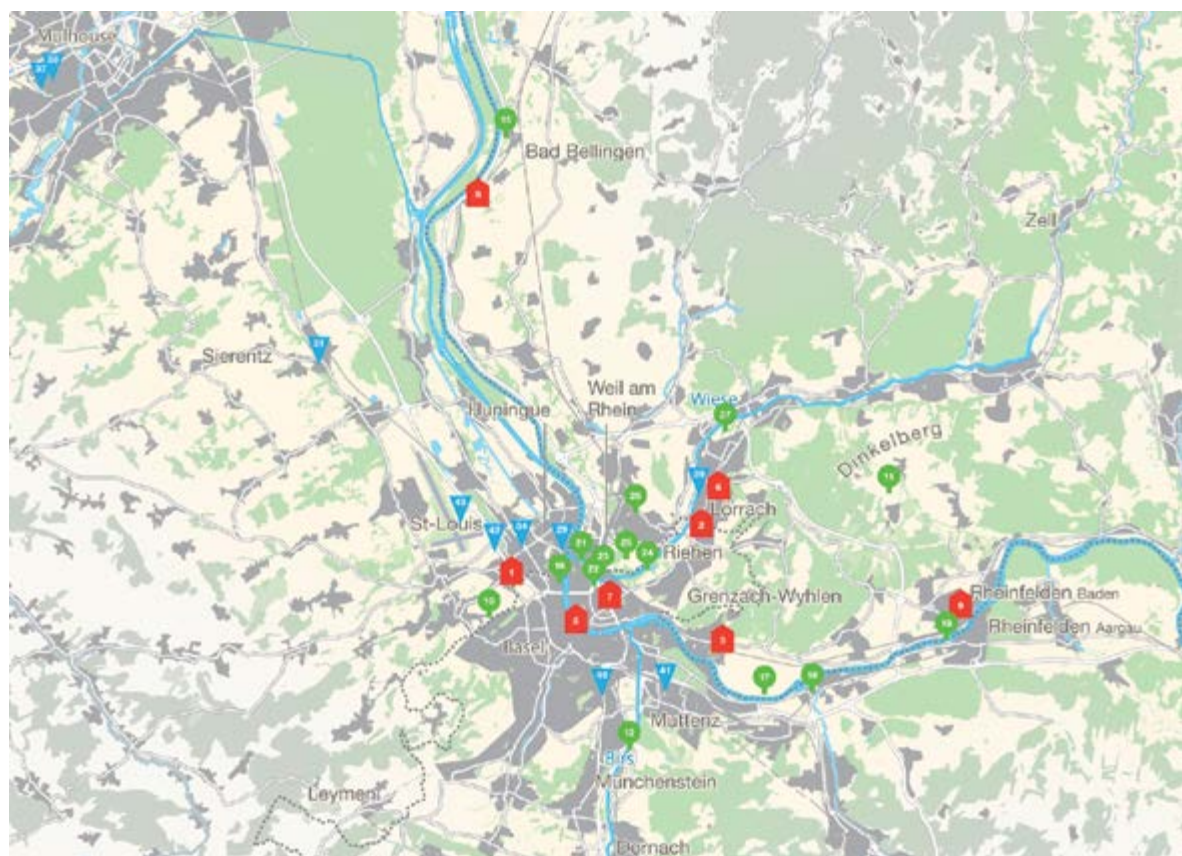
The trinational region is characterised by a very diverse landscape, with features including the Rhine, Wiese and Birs rivers, and the Vosges, Black Forest and Jura mountains. Even today, the potential of the open landscape is still underused in a fragmented region that feels under constant pressure to promote urban development. This area of activity aims to rethink and clarify the connection between the urban and the landscape areas of the region. The ultimate objective is to improve and boost the value attached to landscape areas.



Cooperation. Shaping the future together.

The third area of activity looks at the required co-operation processes that shape the IBA. Projects, processes and events are to be used to rediscover cross-border spaces and encourage identification with the region as a whole. The key aspect here is getting a range of different stakeholders and the local population involved in planning processes.





URBAN AREAS

- 1 Tramway 3: Basel (CH) – Saint Louis (F)
- 2 Customs post Lorrach (D) / Riehen (CH)
- 3 Electrification Upper Rhine Railway line
- 4 MicroCity Basel/Riehen/Lorrach/Weil St. Louis
- 5 Regular service shipping on the Rhine
- 6 Railway station Lorrach,
- 7 Railway station Bad. Bhf. Basel
- 8 Quartier at the station Rheinweiller
- 9 Vision 2020 of the station Rheinfelden Baden

LANDSCAPE AREAS

- 10 Gravel pit 2.0
- 11 Regional park Dinkelberg
- 12 Landscape Birspark
- 13 Trinational production of green open spaces
- 14 Regional green belt
- 15 Bad Bellingen at the river board
- 16 New Rhine Promenade Basel (CH) – Huningue (F)
- 17 Housing areas at the riverside Grenzach Whylen (D)
- 18 Rhine Promenade Rheinfelden

LIVING TOGETHER

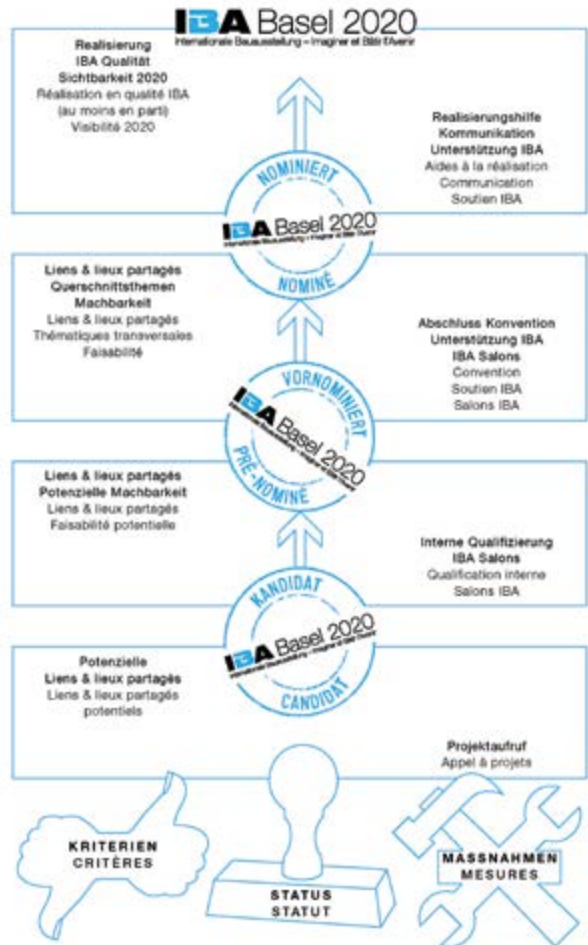
- 28 Caravan of needs
- 29 Vision of the urban development 3Land
- 30 Extravagant
- 31 Domaine Haas
- 32 Zoom
- 33 House of architecture Basel
- 34 Centre of arts and rare crafts
- 35 IBAtours3
- 36 La Baustell
- 37 Quarter DMC
- 38 motoco
- 39 Industrial culture
- 40 HGK Campus Dreispitz
- 41 Polyfeld Muttentz
- 42 Welcome@Flughafenstrasse
- 43 One agglomeration, one signal

Figure 6: The Trinational agglomeration area covering the projects of IBA Basel

IBA BASEL 2020

Qualification of the projects

Following the launch in mid-October 2010, the call for projects in April 2011 marked the start of a bottom-up process that generated over 110 project proposals. These were reviewed by the scientific board of trustees in September 2011 based on the IBA criteria, and prequalified with specific recommendations for further development. Around 40 prequalified projects were presented at the public IBA Forum in Basel at the start of November 2011. In recognition of its efforts to engage not only institutional partners but also broad sections of the public in the development of IBA projects, IBA Basel 2020 was awarded the WERKBUND LABEL in autumn 2012. As part of the ongoing qualification process, the IBA board of trustees regularly issues specific recommendations for the further development of the proposals.



Figures 7 and 8: Qualification process (top) and IBA Board of Trustees (IBA Kuratorium) (bottom)

(from left to right: Dr. Ursula Baus, Prof. Dr. Angelus Eisinger, Dr. Maria Lezzi, Prof. Dr. Alain Thierstein, Prof. Dr. Martina Löw, Prof. Françoise-Hélène Jourda, Prof. Peter Pakesch)

PROJECT EXCERPT FROM IBA BASEL 2020

Landscape areas: Sample project – New Rhine Promenade from St. Johann (CH) to Huningue (F)

The restoration and renovation of the St. Johann harbour was concluded successfully in autumn 2012. This was one of the core requirements for the creation of the Rhine walkway. Along with a competition, the basic agreement concluded with Novartis in 2005 regarding the Novartis complex opened the door for the construction of a public walkway beside the Rhine from St. Johanns-Park and past the St. Johann harbour to as far as the French border.

Following the restoration of the St. Johann harbour, an attractive promenade for pedestrians and cyclists will be constructed beside the Rhine, leading downriver from St. Johanns-Park over the Swiss and French borders. This will create a cross-regional network along the Rhine as

far as Huningue. This example highlights ways of working with the river and its banks in an urban environment – one of the core themes of the IBA.

The two open green areas planned for the Novartis complex, Parc South and North – are located within the Novartis complex and are not accessible to the public. In contrast, the generous walkway from the Fabrikstrasse to the promenade and the promenade itself will be open to the public. The restaurant planned for the building at Asklepios on the Novartis complex will also be open to the public.

Figure 9: New Rhine Promenade



Urban spaces along mobility axes: Sample project – Tram 3: A cross-border link between Basel (CH) and St. Louis station (F)

The Line 3 tram connection from the current terminal station Burgfelden Grenze (CH) in Basel to the station in Saint-Louis (F) is designed to boost the appeal of public transportation in the Trinational Eurodistrict Basel. The new, extended tram line – stretching for 3.3 km – is an attractive option for commuters and encourages people to cross the border to make use of leisure and shopping facilities. Districts that were previously difficult to reach will now have better links to public transport, and this will in turn greatly enrich their appeal as a location. This will be reflected in increasing migration toward these areas and a greater density of residential space and services. It is hoped that the tram project will help to drive development. The fact that a cross-border transport concept with specific strategies to reduce existing

traffic problems (tram line, P+R options, links tram and railway) has been developed and approved jointly is what makes this project so exemplary and innovative. Within the framework of the IBA, this project facilitates an integrated perspective on – and the development of – mobility, residential spaces, town planning and landscapes.

Figure 10: Public space in front of the Novartis building Asklepios





Figure 11 and 12: Tram 3 - a cross border transport link

Living together: Cross border urban development: Sample project – Vision of the urban development 3Land

The three towns of Basel, Huningue and Weil am Rhein are aiming to draw up a joint master plan for the area around the trinational region based on the "Entwicklungsvision 3Land" (MVRDV / Cabane / Josephy). The master plan seeks to integrate the Rhine area between the two bridges, Dreirosenbrücke and Palmrainbrücke, into the trinational agglomeration and transform it into a space for future urban development. Under this plan, each district in the three countries will retain its own identity and devise its own areas of focus.

The planned developments will concentrate, and to some extent relocate, harbour usage in a new part of the harbour basin with better links to the more important rail and road network. The transformation of existing harbour areas will cre-

ate new potential for residential and mixed-use areas right next to the Rhine.

As a shared landscape, transportation and leisure space with a network of bridges, the Rhine area forms the conceptual framework for the development of a cross-border identity. To support the implementation of these plans, the three towns are joining together to form a planning partnership. The planning will be developed further and agreed on a trinational basis in cooperation with the IBA. ■



Figure 13: Vision of the urban development 3Land (right) and visualisation of the areas (left)

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Photos: Marcel Zwissler, IBA Basel 2020

Aerial Photo: Bau- und Verkehrsdepartement Canton Basel-Stadt

Illustrations: Dominique Berrel, Rebekka Heeb

URBAN REGENERATION AND ITS ROLE IN CITY PLANNING: PERSPECTIVES FROM SPAIN

Juan Luis de las Rivas Sanz



THE CITIES OF THE FUTURE ARE OUR CURRENT CITIES

Over the last three decades, the most important urban projects in European cities have been those associated with the transformation of existing urban places; arguably, these have been of greater significance than has the creation of new urbanity outside the city or in new cities. The coming of post-industrial society and the crisis of the functionalist urban model, questioning urban expansion, have generated a context where the main urban target has been the renewal of the many abandoned spaces. Changes in industry, transport systems and logistics underly the better known urban projects of the past years, from London Docklands to Emscher Park, the East of Paris or the inner Milan urban renewal. Albeit with differences of intensity and quality of results, those factors have influenced all the main cities.

It is true that the debate about urban quality which arose in the 1970s had its origins in the challenge of preserving historical urban centres, especially in Italy, the United Kingdom, France or Spain. Also we have seen the improvement of social housing and worker neighbourhoods created after the Second World War. Together with the major investment in public facilities and infrastructure, there has been a convergence of emphasis on existing cities. However this strategy of creating quality in and between the urban fabric has happened alongside continuous urban expansion, with the creation of immense suburban areas following the post-war city model.

In any case, the debate about sustainable city models and the crisis in the Western European economy, in addition to recent changes in the cities of Eastern Europe, have introduced new considerations regarding urban intervention in the existing city. At its heart is the need for sustainable development, with its three principal variables: the urban economy, social cohesion and the preservation of natural resources. In this direction the European Union, and related bodies, are trying to define an advisory framework for the cities (UE 2007; EEA 209, URBACT II, 2013). At the level of individual countries we can see variations in the nature of urban regeneration intervention in the existing city, from rehabilitation to urban renewal (IUU 2010, see Figure 1).

In the wake of the Leipzig Charter on Sustainable European Cities (2007), urban regeneration has gained strength in planning practice and urban governance. The promotion of integrated urban development for a more balanced territorial organisation, rooted in European urban tradition, sees the quest for urban sustainability paying special attention to the existing city, in particular to the more deprived neighbourhoods. This article explores several cases in Spain where urban regeneration strategies for specific city areas maintain the vision of the city as a whole. Barcelona, Bilbao, Madrid and Vitoria, each with their own particular circumstances, show the will of the local authorities to involve their cities in future urban projects. Through this diversity of programs and projects we see the potential of our cities for creating new spaces while preserving their specific identities.

Vitoria's new neighbourhood of Salburua – buildings along the central axis amidst a planting scheme based on the use of native flora

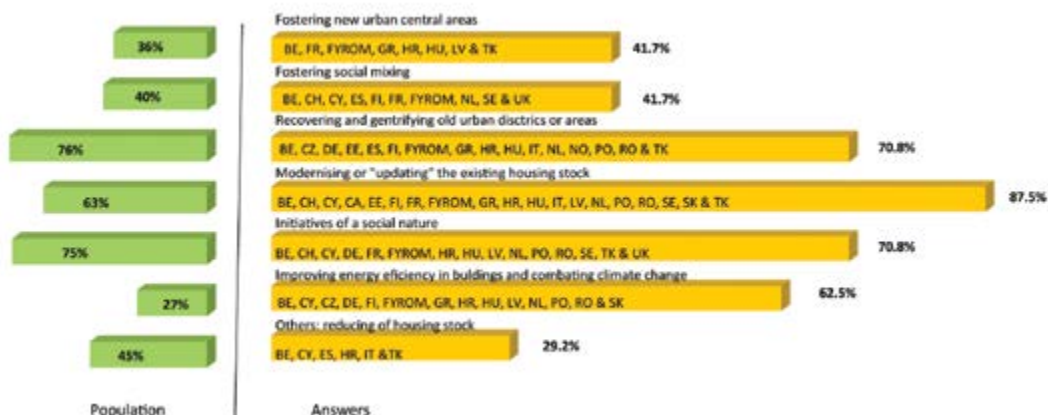


Figure 1: Image shows the response to the question 'In your country, urban regeneration is a practice that is commonly considered as being related to...'. Source: "Integrated Urban Regeneration in Europe. Summary Document", June 2010 Spanish Presidency EU-Instituto Universitario Urbanística de la Universidad de Valladolid ¹

Following the Leipzig Charter on Sustainable European Cities (2007), urban regeneration has gained strength in both planning practice and urban governance. The promotion of 'integrated urban development' for a more balanced territorial organisation, having regard to the traditional polycentric urban structure of Europe and paying special attention to deprived neighbourhoods are the key drivers of a new urban regeneration strategy, rooted in the classical objectives of planning. Urban regeneration – within a culture of resource recycling – has a clear link to the sustainability of our cities.

The Toledo Declaration² clarifies this urban perspective. In order to "*make the model of a smarter, more sustainable and socially inclusive city*", this emphasised, amongst other factors:

- Taking into account the commitments set out in the Leipzig Charter with regard to paying special attention "*to deprived neighbourhoods within the context of the city as a whole*" and more particularly the convenience of aligning one with each other its concrete objectives in order to reduce social polarization.
- Recalling that the overall urban quality, determined by the quality of public spaces and urban man-made landscapes and architecture is an essential requirement for establishing a pleasant environment for the urban popula-

tion and also for the global attractiveness and competitiveness of the city.

The basis for the city project to confront the current urban challenges, founded in social and spatial quality, would not be possible without coherent urban planning, as the Declaration says, stressing "*the importance and effectiveness of spatial and urban planning as a policy lever for integrating environmental, social and economic objectives*".

Urban regeneration is not about new urban theories. It is a practical subject, rooted in the public realm that justifies urban planning and where all the architects and planners must be involved. In the author's own city, Valladolid, we are encouraging a change in /outlook, to turn expansive urban planning and its consequences into regenerative planning. Our approach is to connect urban mobility planning with landscape planning and to reinforce existing urban areas working within their vacant spaces and boundaries. However, local developers and public agents maintain their reliance on urban growth, only for economic reasons. Often, they look no further than that, in spite of the fact that urban growth has generated a lack of urban quality in Spain. But the quality of urban life is now the main target.

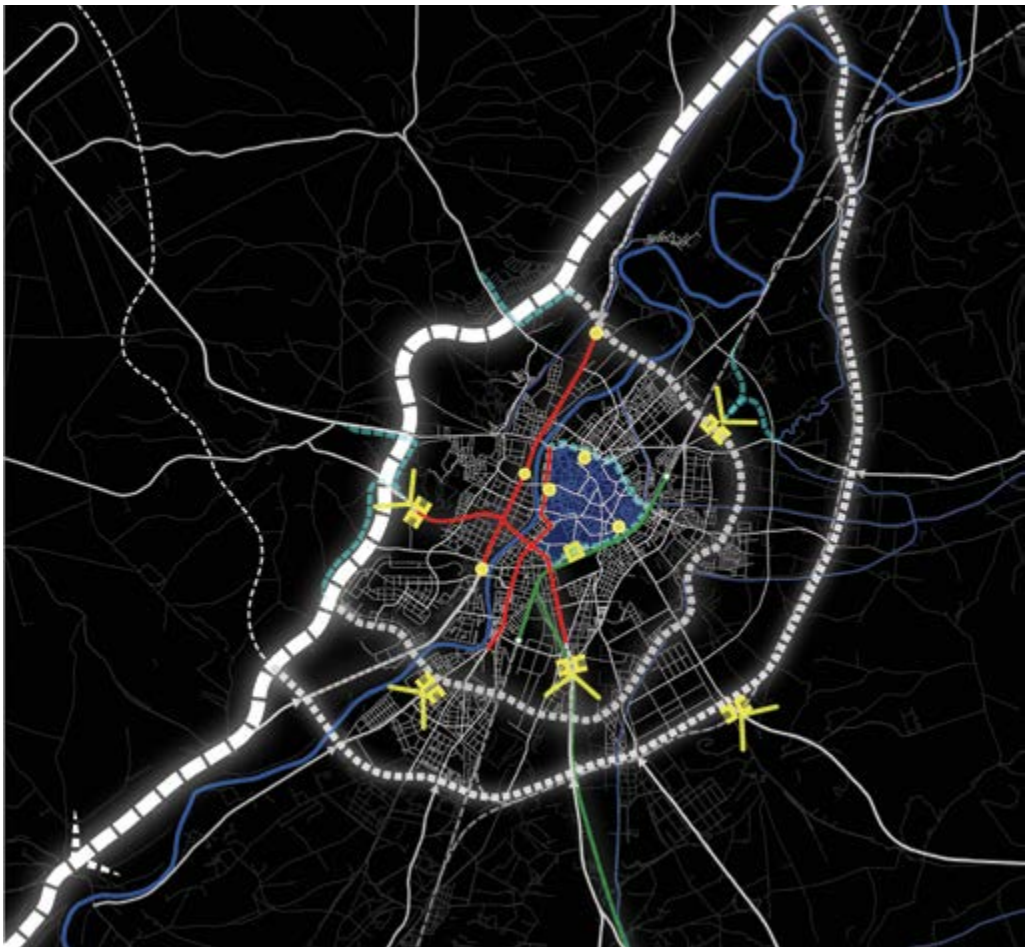
We can observe different approaches in the understanding of urban regeneration strategies. We need to clarify what urban regeneration

means -and why it should differ from much recent urban practice- and regard it as a planning strategy in its own right. To illustrate what regeneration can mean, the author has selected four Spanish case studies. The lessons that can be drawn from these have much relevance to planning strategies for existing urban spaces generally. For in all of our cities we have such spaces or neighbourhoods, damaged or quasi-abandoned awaiting new activities, new people, new rules. These areas belong to the soul of our cities and they are not empty spaces. The regeneration of existing cities is the key to their better future.

Today the “Smart City” movement pays special attention to urban regeneration. But this perspective is too much linked to corporative urbanism and is obsessed with a future of urban efficiency controlled by IT. We need common experiences

from which we can learn. By looking at Barcelona, Bilbao, Madrid and Vitoria we can observe an extraordinary will to secure urban improvement. In Barcelona and Bilbao the main strength is their unusual culture of urban planning linked with the authorities’ ability to involve all the local stakeholders in future urban projects. Vitoria, a smaller city, has a long tradition of good administration, and today a clear commitment to urban sustainability. Finally, Madrid is a great city, chaotic and more or less ungovernable, but a place that has attracted some of Spain’s most talented people.

Figure 2: The city gates: A new concept of urban transit in Valladolid, boosting transport interchanges. Source: author





Figures 3 and 4: Old and new in 22@Barcelona District. Source: Mario Paris

Figure 5: Barcelona 22@ Innovation District areas. Source: Ajuntament de Barcelona, 2010



**BARCELONA 22@:
THE OLD INDUSTRIAL NEIGHBOURHOOD
OF POBLE NOU TRANSFORMED INTO AN
INNOVATIVE DISTRICT**

The contemporary urbanism of Barcelona is very well known in the world, in particular the city transformation that took place as a result of the Olympic Games in 1992. Barcelona is also famous in town planning history thanks to the “*Ensanche*” of Cerdà (1860) or to the Plan Macià (1934), in which Le Corbusier collaborated. Visitors to Barcelona can discover the quality of the inner city landscape, the potential of the Cerdà grid for urban adaptation, the accumulated experience in public space design, the rediscovery of the Mediterranean waterfront, etc. In this rich urban culture, with its creative ideas, the Poble Nou plan shows what can be achieved through major urban regeneration projects.

We must remember that Barcelona is a small municipality in terms of land, with only 101 Km², but with some 1.6 million people (2012). As a result, the urban fabric has a dense structure, housing an average of around 160 people per hectare. In 2011 the Metropolitan Authority of Barcelona (AMB) was created, bringing together 36 municipalities and a total population of 3,3million people and providing coordinated management of urban transport, environment and planning. The scale and relevance of the projects led by the AMB are amazing, but it is from the more local level that we can learn more about the possibilities for and constraints of urban transformation.

The urban density of Barcelona and the lack of large empty places inside the municipality have intensified the interest of local authorities in urban renewal, generating a clear trend to transform all those spaces without intensive uses –some authors say “*terrain vague*”.

Figure 6: Industrial Poble Nou in 1928. Source: Barcelona Municipality archives





Ajuntament de Barcelona

22@ Barcelona

- - - Àmbit del Pla 22@
 - - - Plans Predominants
 - - - Planificació Aprovada
 - - - Planificació en estudi
 - - - Herència
 - - - Activitats
 - - - Equipaments
 - - - Serveis Tècnics
 - - - Edificis Industrials
 - - - Edificis Industrials consolidats
 - - - Zona Verda
 - - - Element catalogat

Ordenació Poblacional
 Juliol 2010
 1:10.000

Figure 7: Barcelona 22@ Innovation District Plan. Source: Ajuntament de Barcelona, 2010



La Sagrera project, based upon the new High Speed Train line (AVE) and its railway station, the transformation of the Zona Franca (the sea port industrial area), the re-creation of the semi abandoned spaces around the Forum of Cultures exhibition area (2004) as the gentrified area of Diagonal Mar and the regeneration of La Mina neighbourhood, a brilliant improvement action in a deprived urban area... are good examples of this programed urban strategy: to re-build the built city.

Poble Nou –‘new village’– is a historic neighbourhood of Barcelona located between Diag-

onal and Gran Via avenues and the sea shore, just to the north of the Olympic Village, that in 1990 saw the renewal of the southern spaces of Poble Nou. This was one of the most important industrial neighbourhoods created in Spain during the second half of the nineteenth century. However, today it has lost that functionality. With an urban structure that more or less respects the Cerdà layout, the decay of this neighbourhood became more evident after the Olympic Games, when the public works around it –including the Diagonal avenue extension– and the creation of the sea front increased the visibility of this part of the

city. Beyond the industry, a small part of the area, along the Rambla of Poblenou, the main neighbour street which goes straight to the sea, was a traditional quarter, with homes, retail and popular features.

Poble Nou's regeneration began at the end of the twentieth century following a discussion about the future of urban industry and the role of the new economy in the existing urban areas. Underpinning this urban change would be the promotion of the knowledge society, within a new built environment designed to help shape economic and social change, with spaces where public and private partnerships could flourish and generate new jobs, a key aim being to attract talent and strengthen Barcelona's profile as an innovative city.

In 2001, the Barcelona Municipality promoted a new urban plan for Poble Nou. This 200 ha area encompassed 115 blocks of the "*ensanche*", the principal land use being abandoned industries. Thus, the 22@ District was born with the potential of 4 million sq.m of floorspace assigned to new urban uses based on innovation and other creative activities. Investors were to be rewarded with an opportunity to intensify development on particular sites, linked with a list of land uses priorities.

But the real driving force behind this strategy has been the capacity of the Barcelona Municipality to develop specific agreements with public institutions and relevant private companies regarding concrete projects for the area. This is a particular strength of the City's governance, the commitment to partnerships between the authority and other public or private bodies (aided by a mixture of public infrastructure investment, grants, and tax reductions or subsidies), and founded in an active public management. Many private firms and other bodies became committed supporters of the process. Indeed, the implementation of the plan continues with many new innovative projects. In particular there is the successful Audiovisual Campus, a single cluster of media and IT businesses closely associated with the university and research institutions. Also, sectors such as design, medical technology and energy have specific places in the 22@district as a whole.

Such initiatives cannot proceed without some

disagreement. There was, for example, opposition from Can Ricart, a small community within Poble Nou where residents criticized the forced removal of local activities rooted in the neighbourhood for years and survivors of its decay. But under the 22@plan these activities were incompatible with the "new" profile of land uses. However, there has been little opposition regarding the gentrification of this area, perhaps because this is seen as an inherent feature of urban renewal generally. This social change has probably prevailed over social objectives that seek to retain existing communities intact.

In ten years of economic growth, the transformation of Poble Nou has become a reality. We can see there the emergence of a new neighbourhood with a remarkable concentration of research institutions, technological companies and cultural facilities, with their highly distinctive architecture. With this neighbourhood Barcelona sought to ensure its position in the new economy, through the attraction of innovative activities and talent, with its motivation to be a "Smart City" and through fostering the clear image of cleverness in our competitive world. However, in the current times of crisis, economic growth is the main concern. The Poble Nou plan must carry on with a renewed capacity for adaptation to circumstances.

BILBAO RÍA 2000, A RENOWNED URBAN RENEWAL STRATEGY

The silhouette of Bilbao's new 'skyscraper', the Iberdrola building created by Cesar Pelli, is the final planned development of the Abandoibarra area, the transformation of which began slowly and before the inauguration of the Guggenheim Museum in 1997. That symbol of the new Bilbao, the creation of Frank Gehry, has been the landmark project of the urban vision led by the Bilbao Ria 2000 office. The spirit of this new Bilbao was born after the dramatic floods of 1983, and at a critical moment of economic change, when the decay of Bilbao's old industry was especially evident.

Few people are aware that the "miracle" of Bilbao arises from an institutional stability uncommon in Spain. The Ria 2000 office is a unique tool, the basis for a remarkable agreement between the State, the government of the Basque Country and local authorities. As the main asset of Ria



Figure 8: Torre Iberdrola, Bilbao Abandoibarra.
Source: <http://www.torreiberdrola.es>

2000, the abandoned industrial lands –more than 1,000ha. along the Nervión river estuary– were comprehensively renewed under the central control of this jointly owned body. In terms of the shareholding in Bilbao Ria 2000, 50% of it belongs to Spanish government institutions, 15% to the Basque government, and the rest to local authorities – the Province and the Bilbao and Baracaldo Municipalities. The real miracle is the stability and work continuity of Bilbao Ria 2000; created in 1997 it endures beyond political changes and differences of party interests.

The urban transformation led by Ria 2000 includes, step by step, ‘capillary actions’ which involve many spaces across the urban area. This sequence of urban changes is in addition to the big urban renewal areas in Bilbao or Baracaldo. These smaller projects relate to Bilbao’s new urban transport system. The updating of railway infrastructure and the development of underground lines

provide opportunities for broader urban interventions within a great diversity of urban spaces across Bilbao. Thanks to those opportunities, the benefits of significant urban change have been delivered to the city in a more balanced way than conventional urban projects. This capacity to work in continuity, to fit every action to the underground and railway building process, managing their complexity and with the adaptation to economic resources is extraordinary.

But there are many other small projects that are of particular note like the river shore in Bilbao La Vieja or in Baracaldo, the Cantalojas square-bridge or the pedestrian access to Deusto bridge and very complex ‘civic’ actions such as the restoration of the San Francisco abbey ruins in Corazón de María square. Individually and collectively, these micro-projects have a formidable effect in the city and on the confidence of its people in a better future.

Figure 9: Basauri urban core area. The master plan area is marked in blue.
UNStudio Masterplan image. Source: Bilbao Ria 2000 Review, 2010





Figure 10: Masterplan of Pozokoetxe, San Fausto & Bidebieta in Basauri (Bilbao Metropolitan Area). Source: UNStudio



Figure 11: New green spaces for dense neighbourhoods in Madrid Río. Source: author

Figures 12 and 13: Images of the recovery of Manzanares waterfront, with the Madrid historical skyline in the background.
Sources: Madrid Municipality and author



However urban regeneration that is reliant upon the increasing land value to fund expensive infrastructure has proved very challenging. In the area of Bidebieta, Pozokoetxe and San Fausto of Basauri municipality, where UN Studio –the architecture firm of Ben van Berkel– is developing a new Masterplan, it is possible to observe the advantages and difficulties of this kind of intervention, managed by Bilbao Ria 2000.

The Pozokoetxe rail station is in the geographical centre of Basauri. A few years ago this 1.5ha space was a hole in the heart of the city with a clear lack of relationship with the urban structure. Pozokoetxe has since been transformed through the re-alignment of railway lines, and through the moving of the freight rail station to a new area.

The first step was to integrate the railway spaces in the city, building a platform to reach the city streets level and creating a new public space between existing buildings. But today the

master plan is oriented to “generate value” in this “freed up” area (adding to Pozokoetxe other close by empty spaces, in Bidebieta and San Fausto). The intended approach is to infill 65,000m² of land with new buildings, becoming the new city centre of Basauri. Planning permission has been granted for 738 housing units and other urban uses, thanks to the agreement of Adif (State railway authority, owner of the land), Bilbao Ria 2000 and Basauri municipality. In 2010, UNStudio presented a draft master plan which was approved without large debates. One of the characteristics of this model of infill is the increase of density without clear constraints.

The main components of this master-plan are: 650 housing units (in place of the 738 previously approved) –in buildings of between 4 and 18 levels–, 700 parking spaces, a new rail station, an 8000 sq.m park and other public spaces. The sale of apartments will guarantee the economic



success of the project. However, with the current crisis in the Spanish real estate market, this type of development has become less attractive – both to corporate investors and local developers. Urban regeneration rooted in surplus land value works only in the right conditions. The new Basauri urban core could ultimately benefit the city, but this will require a change in the present economic circumstances.

THE CONTROVERSY OF MADRID RIO: URBAN HIGHWAYS AND THE NEW URBAN LANDSCAPE

In 2005 a team composed of West 8 and Burgos & Garrido architects won the competition for a new park system in Madrid, alongside the Manzanares River and running on top of the M30 urban highway, a cutting for which had been dug in the preceding years. This urban design project, Madrid Rio, with its budget of 400 million Euros, was

one of the biggest projects in the recent history of Madrid. This below ground section of the main orbital route of inner Madrid was to be roofed over and landscaped, creating a green corridor with a length of 6km and a minimum width of 30m.

An expanded design team coordinated by Ginés Garrido and composed of the competition winners plus two other firms fulfilled their brief very effectively, enabling the builders and the municipality to meet the deadlines, with the last phase of Madrid Rio being finished in 2011. The corridor, an excellent system of parks and public spaces, has three principal sections: the corridor itself along the river, the more formal area beside the Royal Palace complex, and the park of Arganzuela. Madrid Rio has around 1,2 million sq.m of green land, 68,000 sq.m of community facilities (sport areas, environmental and artistic pavilions, cultural facilities...), an urban beach and kiosks, playgrounds for children, coffee-shops, 13 foun-

Figure 14: The pedestrian bridge of Arganzuela. Architect: Dominique Perrault. Source: Mario Paris



tains, and more than 33,500 new trees.

But can the costs of such a massive landscaping scheme be justified? In these major projects, similar in scale to other experiences like the “Big Dig” in Boston³, all depends on finite public resources. Only the larger cities provide this kind of opportunity, but few are prepared to proceed with such expensive works. The transport infrastructure of Madrid Metropolitan area justifies an unusual investment in the city but also creates the planning context for these new public spaces. The quality of the new parks, green corridors and other urban facilities balances the general criticism about the intervention in transport infrastructure. The question remains, if we consider the entire process of transformation, beginning with placing the highway underground, are the benefits sufficient to justify the high cost?

It is true that Madrid has increased the public spaces ratio and it has today a new inner green

area connecting neighbourhoods that have grown apart for years. The highway was a real barrier between very different building areas and the river was inaccessible. In the neighbourhood of Arganzuela the rental gap with the more central urban areas across the river is dramatic. Probably the suppression of such a physical barrier generates more opportunities for social cohesion. And all the citizens of Madrid have a new contact with the Manzanares River. But the response to the above question is not easy, it is inherent in this case study.

THE VITORIA PARK SYSTEM: WORKING WITH LOCAL LANDSCAPES AT DIFFERENT SCALES, FROM CITY TO REGION

The city of Vitoria was designated in 2012 as European Green Capital. This honour is the result of a long commitment to urban quality in the preservation of a historical city, to natural landscape

Figure 15: Creek restoration in Vitoria. Source: author





Figure 16: Vitoria Green City - Green ring and urban system of parks.

Source: Vitoria Municipality, 2012

regeneration and to the control of urban growth during these last decades of expansion.

The following statement addresses Vitoria's local contribution to fighting global climate change:

*"The City Council of Vitoria-Gasteiz actively promotes the protection of the environment by developing specific policies and programs and working with other Government departments, provinces, territories and international partners in the fight against climate change. Given that over half of greenhouse gas emissions are created in and by cities, local authorities have a key role in mitigating climate change. In this sense, Mayors often have more control than national governments over issues that directly have an impact on climate change"*⁴

These words define very well the municipal role of working at the local scale to resolve global environment problems. From the range of local poli-

cies developed in recent years the author wishes to emphasize two spatial planning tools, the urban mobility master plan and the park system strategy –the Green Ring. While there has been some discussion about new housing in the outskirts of Vitoria, these strategies emphasise the existing city limits. They define a new spatial framework for urban debate, providing physical constraints for managing urban growth. In this sense Vitoria has a clear advantage over other cities.

Based on an approach to landscape planning unusual in Spain, the environment agency of the city has generated during the last twenty years a new local culture about open spaces. One could say that Vitoria's urbanism has been unique compared with other cities. However, Vitoria is an industrial city which had a population of only 50,000 in 1960. Today the city has around 240,000 people. But the effective management of urban growth was not by chance; it required a clear long



Figure 17: Vitoria, Tramway within the historical city limits.
Source: author



Figure 18: One of Vitoria's new peripheral neighbourhoods.
Source: author

term vision by the local authorities. Now, Vitoria's Green Ring is a reality, but the first steps were not so easy. Thirty years ago, the water basin authority wanted to canalize the Zadorra River to control systematic floods. The City decided on an alternative approach, one that was more natural, without concrete walls and preserving the original corridor of trees along the river. The new strategy for controlling floods involved the transformation of an abandoned airfield into a natural park, designing new marshlands that could stock rain water and recreating the original creeks... this was the origin of Salburua Natural Park, today a RAMSAR protected area. Today the Zadorra River belongs to the Natura 2000 Network.

The Green Ring measures 600ha and has a radius of 3 kilometres, in a city with 1,000ha of green areas, 45sq.m for each citizen. It enables Vitoria to preserve its compact urban structure. The urban area is smaller than the municipality, with 276km².

This is a particular feature of the historic city of Vitoria, which is located on sloping land overlooking an extensive plain; it is also surrounded by many tiny villages - 63 "concejos", little councils, the total population being 5000 people. The Green Ring separates the city from these villages, 80% of the land within the municipality is in forest or agricultural use and these areas are protected.

Vitoria's influence in landscape planning extends to the regional level. Here the council's environmental office has worked with the provincial authorities to control urban sprawl and review nature preservation criteria. With the name of High Lands Ring and founded in the prior protected ecological network, the idea is to improve the regional environment in different ways, providing educational benefits and boosting the enjoyment of open spaces. At the same time the rural areas and other middle zones gain visibility and become more resistant to real estate pressures.

Vitoria has been damaged by the dramatic urban growth of the last decades, as we can see if we visit the peripheral neighbourhoods of Salburua and Zabalgana, with a lot of empty spaces where the building process has been stopped by the current economic crisis. But the landscape strategy mitigates the effect of this generic drama. Vitoria is actually a comfortable medium scale city. In Vitoria, as in the other cases, we can observe why urban regeneration is not an isolated strategy; it is not a linear process. But we can also conclude that we need not only public leadership and support; we also need public and private partnerships to prepare a new scenario for urban regeneration in times of crisis, in a context where resources are limited. ■

Endnotes

- 1 The 2-letter abbreviation code and its correspondent country name: BE-Belgium; CA-Canada; CH-Switzerland; CY-Cyprus; CZ-Czech Republic; DE-Germany; EE-Estonia; ES-Spain; FI-Finland; FR-France; FYROM- Former Yugoslav Republic of Macedonia; GR -Greece; HR -Croatia; HU-Hungary; IT-Italy; LV-Latvia; NL-the Netherlands; PO-Poland; RO-Romania; SE-Sweden; SK-Slovakia; TK-Turkmenistan; UK-United Kingdom
- 2 Toledo Informal Ministerial Meeting on Urban Development, Conclusions/Declaration. European Union, 21–22 June 2010.
- 3 Boston's Central Artery/Tunnel project
- 4 See the document "European Green Capital Award 2012-2013", Environment and Sustainability Department of Vitoria-Gasteiz, 2013. Pag. 4.

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CANBERRA AS AN EXEMPLAR OF INTERNATIONAL ORIENTATIONS IN CITY AND REGIONAL PLANNING

Karl F. Fischer · James Weirick

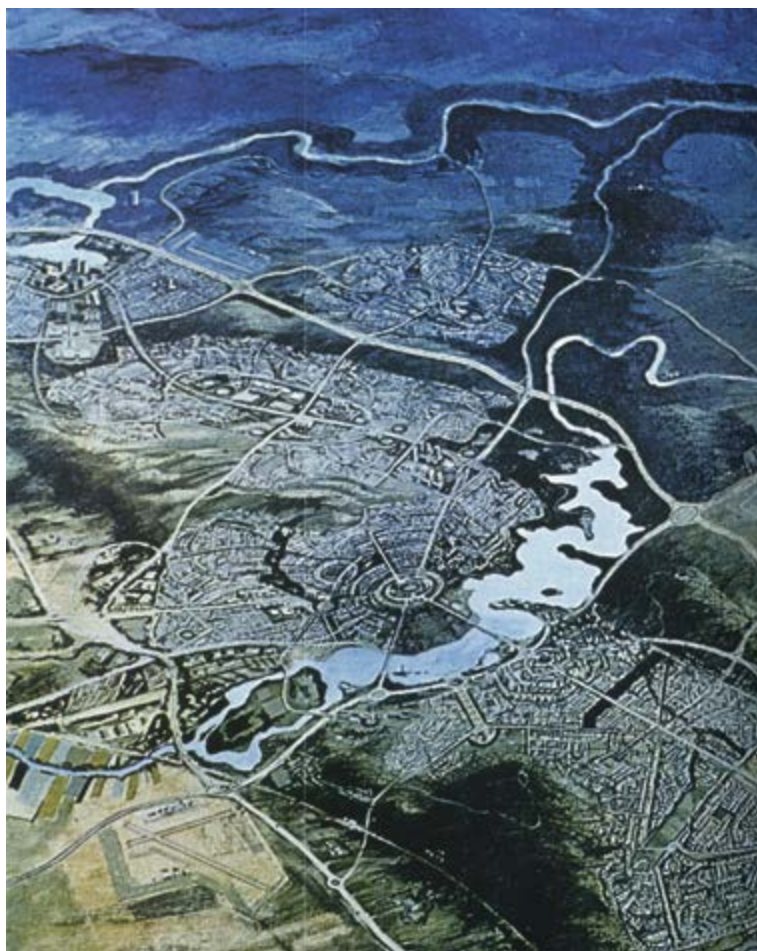


Figure 1: Canberra, looking south – this visionary rendering from 1969 captures the built reality of the city as it approached the millennium



Figure 2: Parliament House, Canberra, looking north across the symbolic centre of the Australian National Capital towards the city centre; Parliamentary Triangle to the right



Canberra is a city with a population of 375,000, composed of a network of separate, predominantly low-density “New Towns”, each with its own urban core separated by hills and green belts. At the centre, on both sides of the artificial lake, lies the “historic city”, today’s North and South Canberra,

for which the Griffin Plan was designed in 1911. To the east of the centrally planned urban area (towards the bottom left corner of the rendering) lie the historic town of Queanbeyan and the privatised airport, where significant development has taken place in recent years.

INTRODUCTION

This year (2013), Australia's capital, Canberra, is celebrating its centennial. For the field of planning research in the ISOCARP context, the city, its plans and processes of development are of exceptional significance. A century of planned development in a situation of public land ownership in the Australian Capital Territory (ACT), excised from the state of New South Wales in 1908, has created something like an open air museum of modern and post-modern planning and urban design (Fischer 1984, 1989). In addition to city planning, regional planning played a role too, starting with the selection of the site for the new capital and culminating in the 1970s in the concept of a regional network of decentralised New Towns described as "an exemplar for many decentralised Australian cities" (Lansdown 1971). While the associated plans for extending the urban areas of Canberra beyond the borders of the Australian Capital Territory were buried in the 1980s, thinking at the regional level has recently been revived, with studies of the Sydney-Canberra Corridor; potential High Speed Rail connections to Sydney and Melbourne; bushfire risk in the forests and wilderness areas surrounding the ACT following disastrous fires in 2003; water resource management; and cross-border suburban development.

Beginning with an international competition in 1911 and its references to the 1910 Town Planning Conference in London, planning for Canberra was firmly anchored within an international context. The original prize-winning scheme by the Chicago architects (and former members of Frank Lloyd Wright's Studio) Walter Burley Griffin and Marion Mahony Griffin (Weirick 2011) was expanded and transformed by post-war British and American models of city planning. In the 1970s and '80s, the "Canberra Model of Development" (NCDC 1970b) was exported internationally through the secondment of Canberra planning staff to Dodoma, the capital of Tanzania. And most recently at the centennial, visions of urban renaissance and new development plans are again set within international networks ranging from the OECD (OECD 2002) to the Capitals Alliance of national capital planners and policy makers launched in Canberra in 2002 (Capitals Alliance, 2003).

CANBERRA AS AN OPEN AIR MUSEUM OF PLANNING IN THE AGE OF MODERNISM

The major reason why it is so illuminating to look at Canberra lies in the cultural function the city has had to fulfil. Since its conception in the pre-federation constitutional debates of the 1890s, the mission of the new city on a new, inland site (Figure 3) was not simply to be an administrative capital of the new Commonwealth of Australia, but also to become the prestigious symbol of a young nation: in fact an "ideal city – the pride of time" (Harrison 1995).

An area of 911 square miles (2368 km²) was excised from the surrounding state of New South Wales to create the Australian Capital Territory. From the outset, Canberra was endowed with planning powers and resources (between the 1950s and 1980s especially), of which planners



Figure 3: The site of Canberra and the Australian Capital Territory (ACT) The foundation of Canberra took place in a climate of competition between the colonial capitals of Sydney and Melbourne. This was reflected in different practices ranging from different railway gauges to traditions of liberalism vs. free trade. To prevent Canberra from becoming an economic satellite of Sydney, the capital had to be "distant not less than one hundred miles from Sydney". On the other hand, Australia was able to learn from its bitter experience with a land-speculating 'squattocracy' of grazers, and consequently to create a system of public ownership of land for its capital.

elsewhere could only dream. Over significant periods of time, these resources included support from central government, a high degree of planning control on the basis of public ownership of land administered through a leasehold system, and generous finance. In the absence of citizen representation in governance of the city (it was not until 1988 that Canberra attained self-government) – these exceptionally favourable circumstances enabled the planners to develop their visions of an ideal new town and capital. In the heyday of the powerful National Capital Development Commission (NCDC) between 1957 and late in the 1980s, Canberra was a planners' paradise.

It must be noted, however, that there have been other times too – times less favourable for planning and development. The beginnings of the city were almost stillborn by the outbreak of World War 1, but a flurry of activity in the 1920s saw Canberra established as the Seat of Government with a Provisional Parliament House. The onset of the Great Depression then led to a period of stagnation which persisted beyond World War 2 into the 1950s. Following self-government and the demise of the NCDC, urban development entered a neo-liberal phase in which planning became a “non-word” to the extent that the “P” was eliminated from the acronym of the authority responsible for the national area functions.

An Exemplar of Early Modernism: The “Griffin Plan”

But let us start at the beginning: the Griffin Plan, which in 2013, is at the centre of the centennial celebrations.

Presented in a superb set of drawings, the Griffins' competition scheme echoed principles of the L'Enfant plan for Washington DC, Haussmann's Paris and Burnham's plan for Chicago, and combined them – in a fascinating way – with those of the Garden City and the American parks movement. The Griffin Plan was a synthesis of amazingly advanced ideas on town planning – both in terms of design features and the planning theory of the day.

Features of the plan included: neighbourhood units (explicitly named as such in 1911) and diversified urban sub-centres connected by a sub-urban railway; a tramway system ‘borne at public expense’ financed out of the revenue of the lease-

hold system; principles of water recycling; decentralised sewage treatment, urban forestry and urban horticulture; ideas on functional and social mix; and much more. In today's terms it could reasonably be described as an example of sustainability planning *par excellence*. Above all, the Griffin Plan was an inspired response to the landscape setting in the valley of the Molonglo River. The scheme created spatial drama with axial alignments focussed on the principal hills and the river dammed to create an artificial lake system across the flood prone lowlands at the centre of the city site. To the south a powerful symbolic schema for the Government Group – a Parliamentary Triangle – was proposed as a physical expression of democratic governance and the separation of powers under the Australian Constitution, culminating at the apex in a pantheon to national achievement on Capital Hill (Weirick 1998).



Figure 4: The “Griffin Plan”: the prize winning scheme of 1912 by Walter Burley Griffin (1876–1937); the superb set of presentation drawings by Marion Mahony Griffin (1871–1961) were inscribed on the UNESCO Memory of the World register in 2003

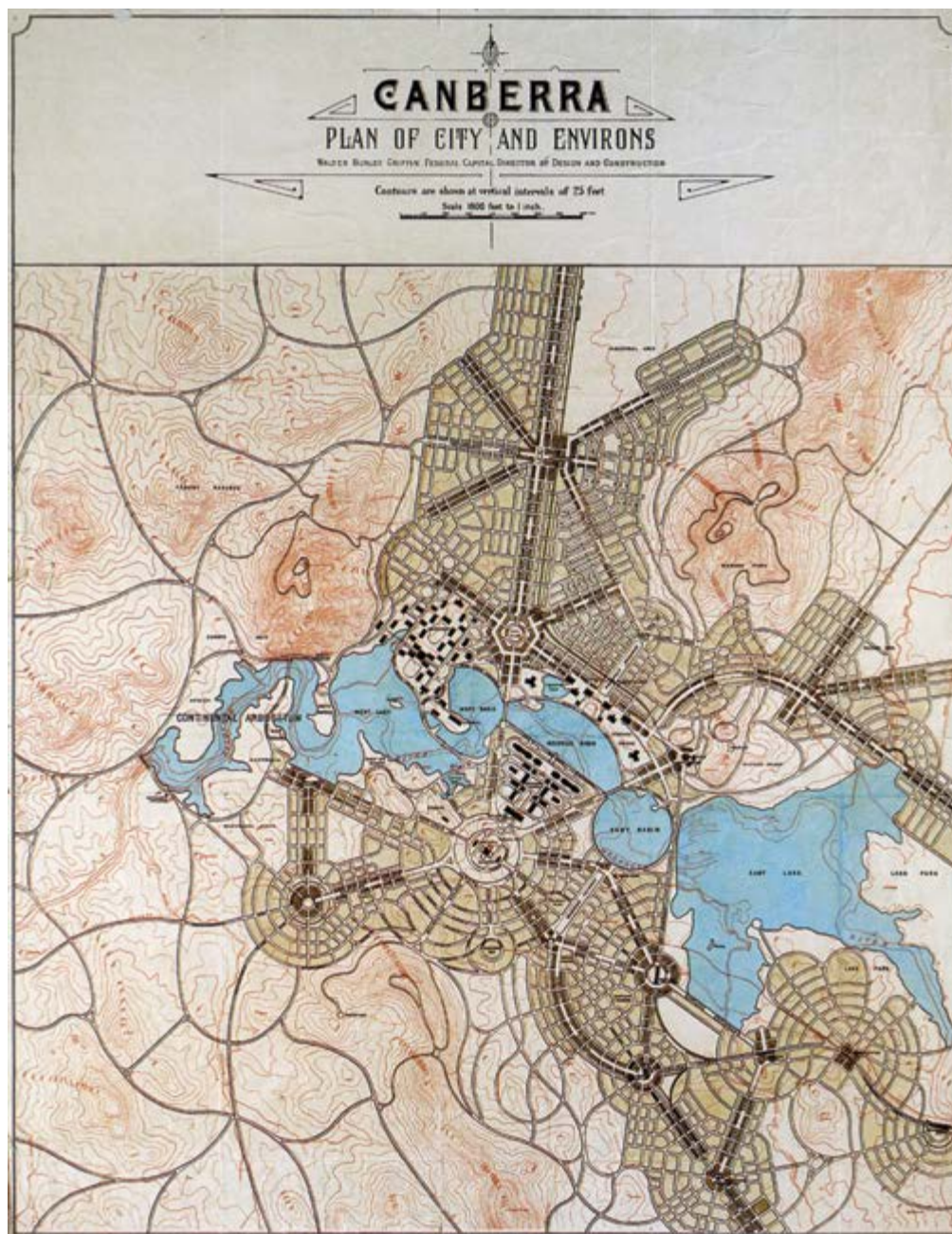


Figure 5: The 1918 Plan of City and Environs - the latest official general plan of the city signed by Griffin as Federal Capital Director of Design and Construction

The Development of Canberra during the 20th century: From urbanist conception to suburban concept

Although called to Australia to supervise construction of the capital, Griffin met considerable hostility to his plan; to his progressive views on planning, politics and society; and to his tenacious personality as an idealist. After the outbreak of World War I, the conditions for implementing his concepts changed dramatically. Griffin lost favour with the government; his contract as Director of Design and Construction was not renewed; and his involvement ceased in 1921. Following his departure, the rich semantic content of the plan was impoverished and changed. The essential shift in the ideal concepts involved a change from the medium-density scheme and the clearly urban character implied by the Griffin plan to a suburban concept. The skeleton of wide *City Beautiful* avenues was fleshed out with bungalows, and Canberra entered an adolescent stage – seven oddly configured garden suburbs in search of a city, or, as it seemed at the time, ‘a good sheep station spoilt’.

New Impulses after World War II

Nevertheless, the development of the new capital city gathered momentum after the cessation of World War II hostilities when the decision to concentrate the national public service in Canberra was made. From the 1950s onwards, this resulted in annual population growth rates of around 10% for more than 10 years. In 1957 (partially as a security measure to bring together the various defence departments, hitherto headquartered in Sydney and Melbourne) Prime Minister Robert Menzies introduced federal legislation which created the NCDC as an exceptionally powerful organisation whose responsibilities lay in planning and developing the capital, and channelling its growth into functioning urban districts. Menzies ensured that the NCDC would have a large, single-line budget and a high degree of planning control based on continuation of the leasehold system. In the event, the NCDC acted as benevolent dictator until its New Town model was firmly on the ground. Canberra remained a city without self-government until late in 1988.

In the three decades between 1958 and 1988, the government sector burgeoned; a version of

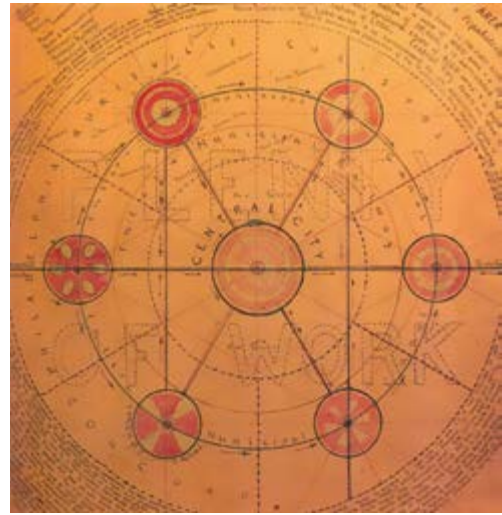
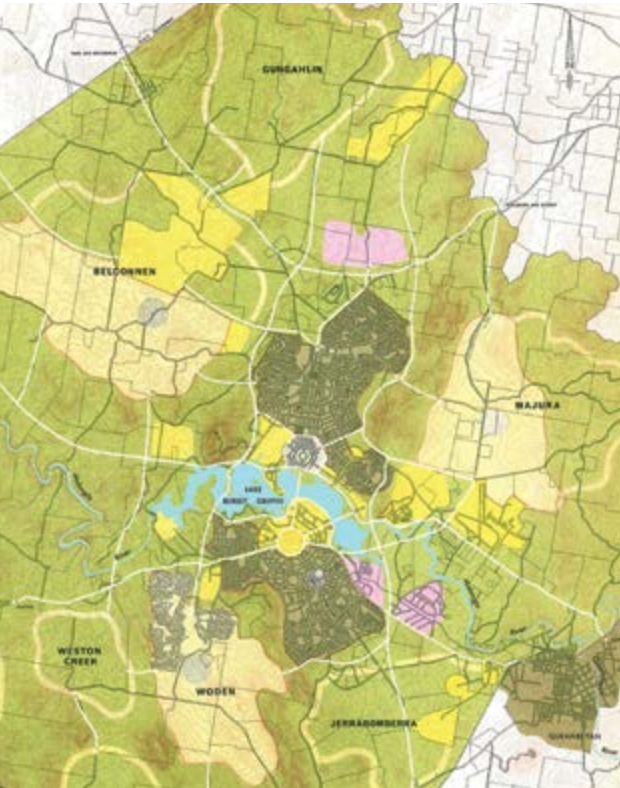
Griffin's lake system was created, giving great distinction to the inland setting, and named after him as “Lake Burley Griffin”. On both sides of its central basin, the outlines of a symbolic centre were formed within the Parliamentary Triangle by a series of widely separated national institutions, culminating in a new and permanent Parliament House, completed in 1988 as a landscape gesture embedded within the profile of Capital Hill. And the city's population increased from 39,000 (1957) to 270,000 (1988), accommodated largely in a series of New Towns.

Lessons in Metropolitan Planning – from the 1950s to 1970s

Planning for the spatial pattern and inner structure of the Canberra metropolitan region involved a learning process with important practical implications, which unfortunately seem to have fallen into oblivion in the 21st century. The NCDC's first metro region plan, prepared in the early 1960s, closely followed Ebenezer Howard's famous ‘Centre and Satellite’ scheme with its radial-concentric configuration of self-contained cities set within a greenbelt (NCDC 1965).

But subsequent traffic modelling showed that traffic flows configured as freeways (emanating from a corona of satellites and converging on the projected Central Business District), would have drowned the city centre in a sea of asphalt. Two important conclusions were drawn from this modelling.

Firstly, as long as the motor car remained the dominant mode of transport in the ACT, a conventional CBD would suffer great traffic problems. The size and composition of Canberra's city centre would therefore have to differ from that of a conventional CBD. It would have to focus on highly specialized services, while a large share of the retail functions and office employment would have to be decentralised into the satellite “New Towns”.



Figures 6 and 7: Planning for growth beyond the city designed by the Griffin: The Canberra Outline Plan published in the NCDC's "The Future Canberra" in 1965 envisaged a radial-concentric arrangement of satellites (left) closely modeled on Howard's Garden City diagram (right).

From radial-concentric to linear urban forms

Secondly, the "New Towns" were stretched into the form of a linear city with "old Canberra" in the middle, connected by peripheral freeways and a central reservation for a public transport spine, planned for implementation when the population reached 500,000. Dividing the city at its northern end into two branches in the form of a Y was intended to make public transport on this spine more effective: the so-called "Y Plan" was born (NCDC 1970a).

The frame of the Y Plan was fleshed out with housing and shopping centres, community facilities and roads graded in perfect hierarchies and pre-determined values of houses and building block sizes. The product might be called "the perfectionist garden city metropolis". As such, Canberra is not simply 'the world's biggest Garden City'. There is no other city in which Howard's Garden City principles – updated in the light of late

20th century ideal concepts in all fields of planning – have been implemented in a similarly complete manner; ranging from a (moderately) revenue-producing leasehold system to a set of (moderately) autonomous, "self-contained satellites" connected to a "central city" with its green core.

Canberra as a perfectionist manifestation of ideal concepts in planning

One of the most amazing features of the city is the degree to which the planning concepts of that earlier period have been implemented. This can be impressively demonstrated by comparing the visionary artistic rendering of Canberra drawn in the late 1960s (Figure 1), which depicts the city in the manner of an aerial photograph as it might have looked at the beginning of the 21st century, with an actual aerial photograph from 2000.

The two images are surprisingly similar. The city's functional and ground plan (Fischer 1989)

Figure 8 :The Y Plan: the NCDC's Strategy Plan for Metropolitan Growth, 1969-1970, a network of large, self-contained satellite towns stretched into the form of a linear city to accommodate a central rapid transport spine and to avoid high levels of automobile congestion at the City Center



looks very much like a diagram from a planning text book. It displays the built reality of the city, demonstrating that the hierarchical planning principles were applied with utmost precision: Canberra was a perfect manifestation of planners' ideal concepts in the era of high modernism – "the ideal Garden City Metropolis" (Fischer 2013).

CANBERRA AFTER "MODERNISM"

Developments following self-government

By 1988 it was becoming obvious that the underlying principles of governance without democratic representation of the local population, together with wholesale financing through federal government appropriations, could not be continued indefinitely. Self-government had to come, and a way of separating national capital costs from municipal costs had to be found. However, the particular arrangement chosen in 1989 created pro-

found problems for the city and its development. One problem lay in the division of land ownership and planning responsibilities within the new two-level governance structure (national/municipal), whilst the other lay in the method of financing the ongoing process of urban development within the ACT.

Ideal concepts of neo-liberal development?

The division of land ownership and planning re-



Figure 9: Canberra – aerial view of 'Inner Canberra' in 2000.

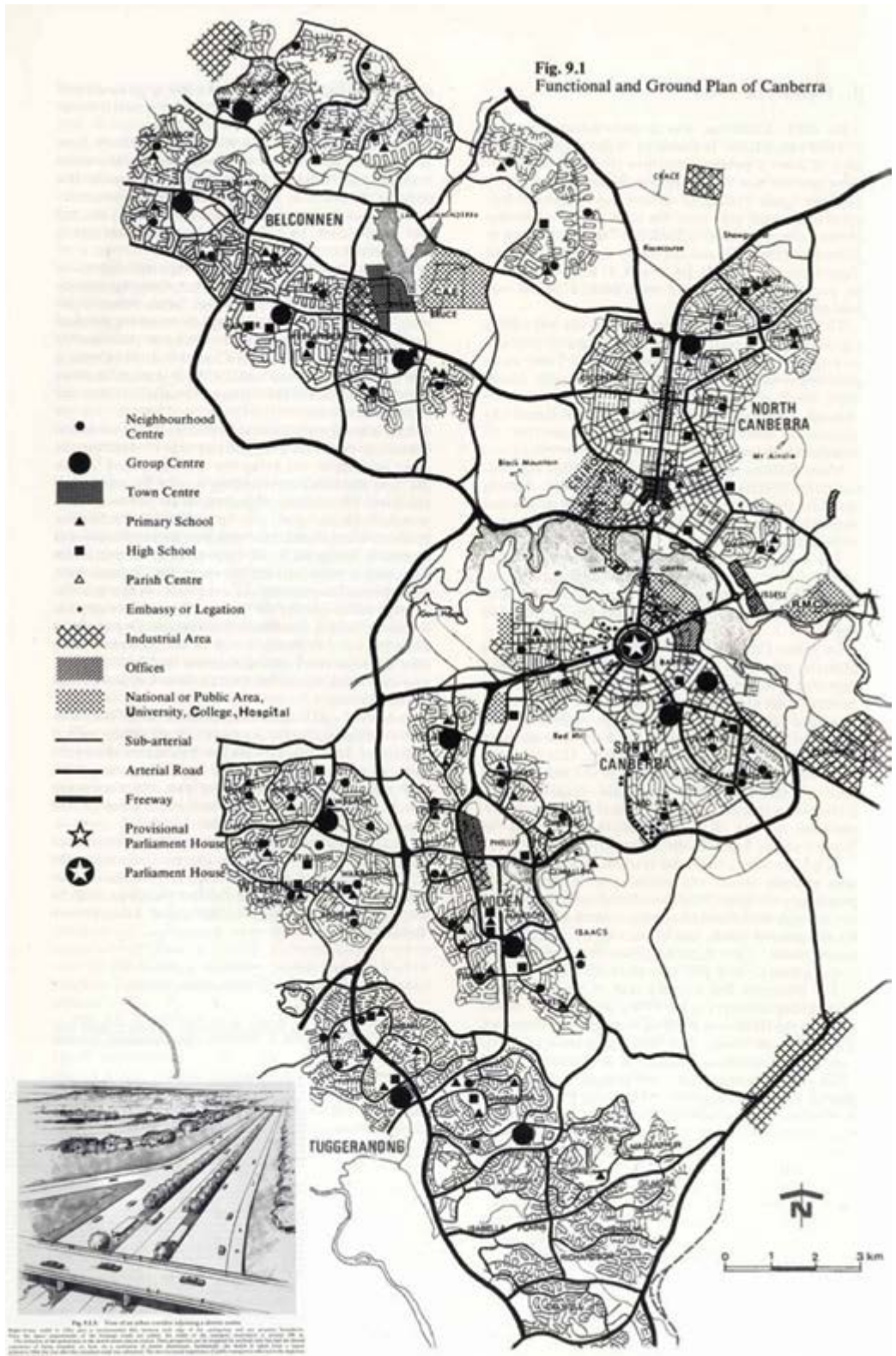


Figure 10: Functional and ground plan of Canberra early 1980s

sponsibilities coincided with the neo-liberal turn of the 1990s. The combination of dysfunctional administrative arrangements and neo-liberal ideology created the perverse situation in which Canberra began to exhibit the ideal form of a non-planned city, captive to market forces and privatisation. This was the case, particularly as far as new suburbs on the urban periphery - and an unplanned "Edge City" at the privatised airport - were concerned (Freestone and Baker 2010).

The retreat from purposeful, comprehensive planning had its institutional basis in the division of planning responsibilities when self-government arrived in 1988. Two weak planning entities suddenly replaced the once-powerful National Capital Development Commission. At the national level, the Federal Government established the National Capital Planning Authority (renamed the National Capital Authority in 1997) responsible for the overall National Capital Plan and development in the symbolic centre. At the municipal level, the ACT Government established a planning organisation variously configured over the past 20 years as an independent statutory authority and a government department subject to direct ministerial control. The ACT organisation is responsible for planning and land management in the New Towns, the rural hinterland and the remote wilderness areas within the catchments of the city's water supply, all subject to a Territory Plan that is supposed to be subservient to the National Capital Plan. In practice, development in the Territory outstripped the capacity of the NCA to update the National Capital Plan, and control of metropolitan strategy was weakened if not entirely lost.

The revenue needs of the ACT Government drove this outcome. The introduction of self-government led to a substantial part of municipal revenue being financed from the sale of land transferred to the ACT from the land bank acquired at the foundation of Canberra (Sansome 2009). This approach was not only unsustainable given the limitations of the ACT lands. It also reversed what had once been managed as a viable method of providing land at reasonable cost for the homes of average citizens, and of channelling land value increases into the public purse. Land policy now focused on maximising land values and immediate returns. By 2004, suburban land

prices in Canberra had exceeded those of Sydney (the nation's biggest city). And with the cost of land soaring, affordable housing became a difficult and contentious issue.

Of equal importance, the time pressure resulting from the necessity of raising revenue for the day-to-day requirements of the municipal budget gave a privileged place to the rapid returns from greenfield development over consideration of the long-term costs (both fiscal and environmental) of far flung, low density suburbs. The revenue imperative also weakened the ACT Government's negotiating power with the development industry. These factors are important in understanding changes to the development pattern of Canberra in the 21st century.

Thus a major greenbelt site to the west of the city between the New Towns of Woden/Weston Creek and Belconnen, (which the traffic considerations and overall planning concept of the Y Plan had considered unsuitable for urban expansion) is today being developed as an extensive residential district. It seems that the lessons learnt from the transportation exercises of the 1960s have been forgotten. The traffic movement between this district, the City centre (expanded to the size of a conventional CBD) and the emerging "Edge City" around the privatised airport to the east are destined to create the very traffic crisis the Y-Plan was intended to prevent.

The "Griffin Legacy" Project

At the national level, a major project with enormous potential consequences for real estate development emerged early in the 21st century. Under the heading of "The Griffin Legacy", this project was initiated by the National Capital Authority along the lines of the Washington, DC "Extending the Legacy" project of the 1990s (NCPA 1997). The NCA study combined an historical analysis of the Griffin Plan and developments that had taken place during the phase of post-war modernism with a kind of "New Urbanist" vision for the central area. In 2004, a lavishly produced publication with impressionistic watercolour renderings presented these ideas to the general public (NCA 2004). The new planning concept promised to boost the city centre; to re-instate Griffin's vision of a lakeside boulevard of cosmopolitan splendour; and in the process, to transform un-

developed open space on the northern shore of the lake into prime-value real estate.

The authors of this present paper argue that at this critical stage in Canberra's planning saga, the beautifully rendered visions should have been supported by thorough analyses of employment locations, transport planning, infrastructure costs, heritage elements, and a host of related studies which would properly have formed the basis of a well-grounded urban development strategy. But this did not happen.

Instead, in 2006, amendments to the National Capital Plan were announced which bestowed upon the imaginative but far from resolved 2004 study statutory force as "a blueprint ...directing public and private investment in core areas of the capital" (NCA 2006 p. 1). There seems to have been an underlying assumption this would lead to immediate investment without lengthy ground work and public involvement. However, a combination of factors led to the collapse of what had begun as an ambitious study. These included urban development realities such as land ownership patterns, infrastructure costs, and market viability; together with an upsurge of community action from an informed citizenry opposed to problematic solutions, heritage loss and the fast-tracking of development projects.

The core problem lay in the fact that the National Capital Authority had effectively lost control of the land in the designated 'national area'. At self-government, most national land was assigned to various departments of the national government, and it was they who decided what to build and where - seemingly regardless of the NCA's plans. This problematic situation culminated in the construction of a large, isolated office complex for the Australian Security & Intelligence Organisation at the centre of the NCA's "New Urbanist" plans for a Griffin-inspired neighbourhood of elegant boulevards, perimeter block housing and active street frontages. The sheer bulk of this "block buster" sits in the urban fabric of the proposed Griffin Legacy network like an embolism. It is far too big in terms of block size, and contributes nothing to the quality of the public domain - particularly in terms of its security requirements. These fractious events have continued to degrade if not violate the original Griffin concept seen as a manifestation of good urban form.

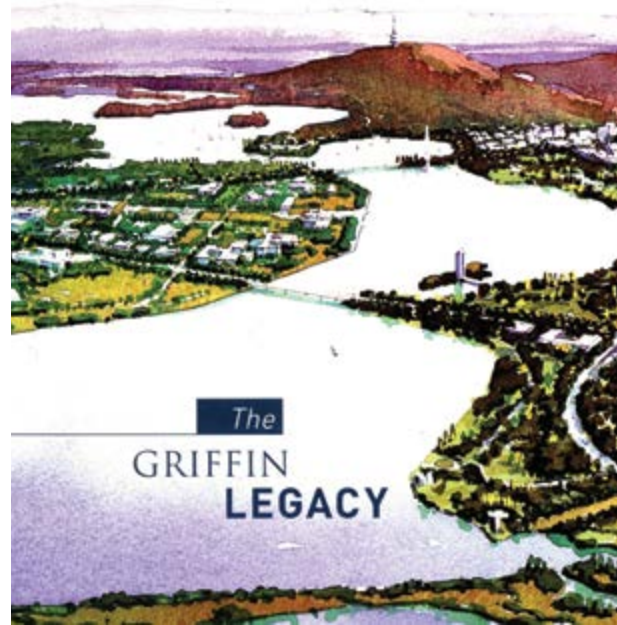


Figure 11: Revisiting the Griffin Plan: the "Griffin Legacy" project for the symbolic centre of Canberra released by the National Capital Authority in 2004

Figure 12: The "Griffin Legacy": model displayed in the NCA's Exhibition Centre at Regatta Point, Lake Burley Griffin, 2004

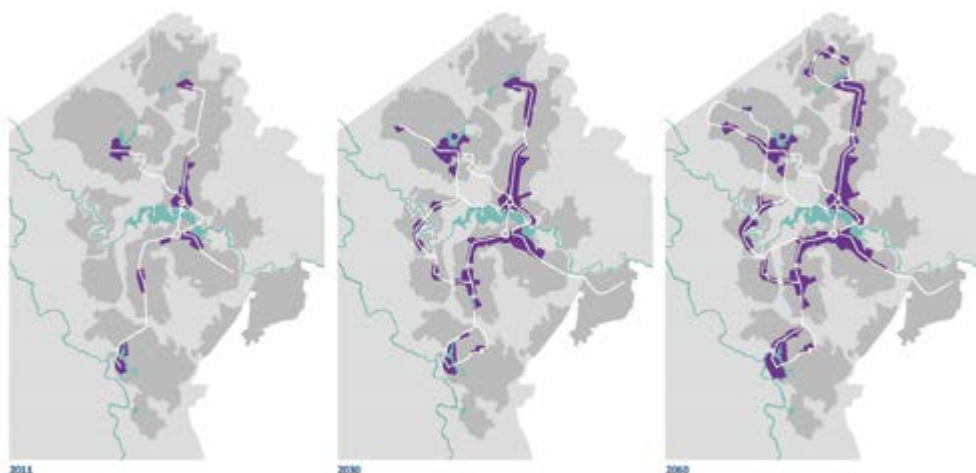


Figure 13: The new Planning Strategy for the Australian Capital Territory, prepared by the Environment & Sustainable Development Directorate of the ACT Government in 2012

Revival of Planning at the Centennial?

For a time this seemed to be the end of the story. However, in 2011 and 2012, and, as it appears, just in time for the 2013 centennial celebrations, investigations into new approaches to governance (Hawke 2011a and 2011b) at national and ACT levels were undertaken, and a series of new planning studies was published by the ACT government. The latter culminated in a new “Planning Strategy” for metropolitan Canberra and the wider regional context embracing the Australian Capital Territory in its entirety (ACT government 2012a).

The 2012 ACT Planning Strategy was based on a number of studies and consultation exercises which provided thorough explorations of alternative urban forms, urban design and density options (ACTPLA 2010, ACT Government 2012a). The strategy involves higher densities along the transportation corridors (transit-oriented development) and major avenues not unlike the principles underlying the original Griffin plan.

In the centre, an urban design study has been developed for linking the city centre to the lake, and a new “City Plan” has been initiated. This work by the ACT government can be seen as a remedial exercise to test the validity of the controls which had emerged from the 2006 Griffin Legacy amendments to the National Capital Plan. Those amendments, as previously discussed, had not

been based on the comprehensive planning studies required to justify development of such scale. Financial support supplied by the national government in the context of the centennial celebrations now helped the local planners undertake the land use and transport investigations which should have been carried out in the first place. The centenary thus gave an exceptional impetus to the return of purposeful planning to the Australian national capital.

At the time of writing, the centennial is being celebrated with a year-long series of events and a wide range of cultural activities including lectures, exhibitions and research into the early history of Canberra. This research has focused especially on the political background and context around the time of federation (c1900), and on the process which was undertaken to identify and select the site for the new capital. Among the centennial highlights have been impressive exhibitions of the Griffin plan. [The authors record their surprise that in all this celebratory activity there has seemingly been little or no mention of the work of the National Capital Development Commission - the body which in fact had carried out most of the city’s physical development during its 30-year tenure of office – or, for that matter of its successor institutions at national and ACT government levels].

The apparent sidelining of the NCDC phase in



Figure 14: Master Plan for the “City to the Lake” project
prepared by urban design consultants Hill Thalís for the ACT
Economic Development Directorate, 2013

the history of planning in Canberra can possibly be partially explained in the context of the larger and wider shift in Australian urban policy in an era of neo-liberalism. This shift has been away from the idea that Canberra stands as a model of urban development in terms of state activism and decentralisation. The current realities of Australian urban planning are such that today, Canberra is considered to be more in the nature of a “one-off” – a world of its own – rather than an exemplar of excellence in its urban patterns and processes.

This situation could change in the next phase of the city’s evolution. If Canberra receives universal recognition and listing by UNESCO as an item of world heritage (with values and qualities stemming directly from the somewhat utopian aims of its founders) it could join Brasília - which was accorded world heritage status in 1987 – as one of the great planned capitals of the twentieth century. However, before this can be achieved, Canberra must attain national heritage listing – a process that has been underway in the centennial year. Regardless of whether or not such recognition is granted, there is no doubt that on the world stage Canberra stands as a unique example of a modern capital whose qualities have emerged from the ideals underpinning the international planning movement, and the history of Australia as a nation. ■

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INVESTIGATING THE MOTIVATIONS, RHETORIC AND CONTROVERSY SURROUNDING RECENT PLANNING REFORMS IN NEW SOUTH WALES, AUSTRALIA AND ONTARIO, CANADA

Laura Schatz · Awais Piracha



Figure 1: Images of Sydney, New South Wales
and Toronto, Ontario. Source: authors



In Australia and internationally, planning legislation which typically governs both plan-making and development assessment has become a target for reform as governments seek to achieve “efficiency” and “streamlining,” often in the name of facilitating economic development. This has particularly been the case in the Australian state of New South Wales where existing laws have been demonized as “the problem”, and reforms are then presented as “the solution.” In this paper, recent planning reforms in New South Wales and Ontario, Canada, will be compared and contrasted. In both jurisdictions, planning legislation has been the subject of successive rounds of reform, with a recent increase in the pace of that reform. The historical context for planning is explained as an introduction to a discussion of recent key reforms in both jurisdictions. Similarities and differences in the motivations, rhetoric and controversy surrounding these reforms are explored. At a time when the planning system in NSW is again being overhauled (and the state government is claiming it wishes to learn from international planning policy and practice), the paper draws some lessons and conclusions of relevance to both the jurisdictions under review.

INTRODUCTION

The reform of planning laws and of the power structures that shape them has been a target of official concern in many countries in recent years. In the Australian state of New South Wales, planning reform has almost achieved “rock star” status: media coverage is constant and is controversial; and (amongst other things) the system is seen as being a “barrier” to economic growth. It has been in and out of rehabilitation often in attempts to make it more “efficient” and “streamlined.” At the time of writing, this public spectacle continues. For more than a decade, those in positions of power have argued that planning reform will raise NSW’s status and mitigate the often-malicious accusations which are frequently directed at the current system. These convictions tend to force decision-makers to tinker constantly with the planning system. And when the system fails to meet their desires, politicians become more desperate and more frantic in their ‘tinkering’. In the Canadian province of Ontario (with a jurisdiction not unlike that of NSW) a similar situation prevails – although not with the same level of urgency or highly charged rhetoric. Over the years officials in Ontario have also been ‘tinkering’ with the planning system in an effort to cure the ills of the province. This paper seeks to explore the intriguing phenomenon of the vilification of (and constant efforts to “improve,”) the planning system in both these jurisdictions. Similarities and differences in the motivations, rhetoric and controversy surrounding these reforms are explored. The paper concludes with a discussion of issues for further consideration.

AN OVERVIEW OF THE PLANNING SYSTEM IN EACH JURISDICTION

New South Wales

Modern urban planning in New South Wales began in 1945 with legislative changes to the *Local Government Act 1919* (Park 2010). By the early 1970s, this early legislation was seen as being overly complex and failing to ensure protection of the natural and cultural environment. These concerns led in due course to the creation of a new body (under the 1974 *Planning and Environment Commission Act*) whose subsequent report formed

the basis of the *Environmental Planning and Assessment Act (EPAA), 1979* (Pearson 1994). The 1979 Act afforded greater importance to ecological considerations in land use planning, to public participation in the planning process, and to coordinating planning and development by public and private interests (Hort and Mobbs 1979).

The EPAA introduced a three-tiered system of Environmental Planning Instruments (EPIs) for strategic and statutory planning. The three tiers of the system were Local Environmental Plans (LEPs), Regional Environmental Plans (REPs) and State Environmental Planning Policies (SEPPs). The Act devolved matters of local planning to the local councils. The State Government was made responsible for planning issues of state and regional significance. Overall the EPAA was a significant move forward in the planning area, receiving accolades from various quarters within the state and outside. The Act and the planning system which it accommodates and on which it depends for its implementation have, however, gone through a large number of reforms, abandonment of reforms and re-reforms. These reforms, enacted in the name of simplicity and efficiency, have made the system more complex and confusing. A detailed account of those reforms is given in the next section (Piracha, 2010).

Ontario

In Canada, power over land-use planning falls to the provinces under sections 92 (10) and 92(13) of the Constitution. These sections grant to the provinces authority to pass legislation in the areas of “local works and undertakings” and “property and civil rights”. In Ontario, the *Planning Act* is the primary legal instrument governing land use planning. Importantly, it lays out the respective roles of municipalities and the Province in land use planning. It grants powers to municipalities to create Official Plans – which, similar to LEPs in NSW, set out general planning goals and policies to guide future land use – and zoning by-laws – which set the detailed rules and regulations that control development as it occurs. It also sets out the Province’s role in local land-use planning. Firstly, the Province establishes “matters of provincial interest” – i.e. a list of areas of provincial concern set out in the Act, such as protecting farmland – to which all decision-makers must “have regard. Sec-

ondly, the Province issues “provincial policy statements” which give detailed direction on matters of provincial interest – such as land use patterns, natural resource management, and transportation. All land use decisions “must be consistent” with these provisions. Thirdly, the Province’s role is to prepare provincial plans such as the Greenbelt Plan and Growth Plan (explained below), with which land use decisions “must conform.”

The first *Planning Act* (passed in Ontario in 1946) has since been reformed many times. The first major reform occurred in 1983 when the Province introduced provincial policy statements to guide municipal planning. Decision-makers were to “have regard to” these statements. Reforms also introduced the “natural environment” as a provincial interest that warranted protection. In the mid-1990s, under a left-leaning New Democratic Party, more reforms followed. Amendments to the Act closely followed recommendations of the Royal Commission on Planning and Development Reform in Ontario (the Sewell Commission). The amendments gave greater authority to municipalities in day-to-day decision-making because of the sense that “municipal government in many parts of the province had come of age in terms of its ability to cope with the day to day administration of planning matters and no longer required and, indeed, resented the intrusive supervision of the province on official plan and subdivision matters” (Wood 1995, p.1). At the same time, the amendments also increased the overarching role of provincial policy by requiring that local decision-making be “consistent with” provincial policy.

In 1996, after the election of a right-wing provincial government, many of the amendments were undone or revised. The Province sought to diminish its role in planning by reverting to the “have regard to” standard and watering down many provincial policies, the majority of which were geared towards increasing environmental sustainability. Until the mid-2000s and further amendments by the more- centrist Liberal government, there was effectively little provincial involvement in planning in Ontario.

RECENT KEY PLANNING LEGISLATION REFORMS

New South Wales

In New South Wales the past decade has seen continual tinkering with the balance of power between state and local government, and between the often-conflicting aims of encouraging development and conserving the environment. When Piracha (2010) commented on the 2004/05 and 2007/08 changes, “planning reforms in NSW have gathered pace....they are becoming more urgent and more dramatic,” he was underestimating the pace of reforms to follow. Since then a number of new reforms have been introduced and some of the previous reforms have been abolished and then reintroduced.

The first set of amendments to the EPAA 1979 was introduced in the form of the 1985 *Environmental Planning and Assessment (Amendment) Act*. New provisions included:

- Greater ministerial power to determine development applications;
- Ministerial powers to direct local councils on financial contributions to be made by developers towards the provision of public amenities;
- Ministerial powers to nominate the determining authorities for major infrastructure projects;
- Restrictions on the power of local planning authorities to impose conditions on (or to refuse) development applications lodged by official state agencies.

In 1993, further amendments to the Act enhanced the planning minister’s approval powers, and excluded local councils from the decision-making process in certain matters (Park 2010).

In 1997 came further major amendments including the introduction of the concept of *state significant development*. Developments declared to be “state significant” in an Environmental Planning Instrument (EPI) were to be determined by the Minister. In the same set of reforms, the concepts of “exempt” and “complying” development were introduced. Very small developments were to be exempt from seeking approvals; and slightly larger complying developments were to face simpler standards -based approval processes (Park

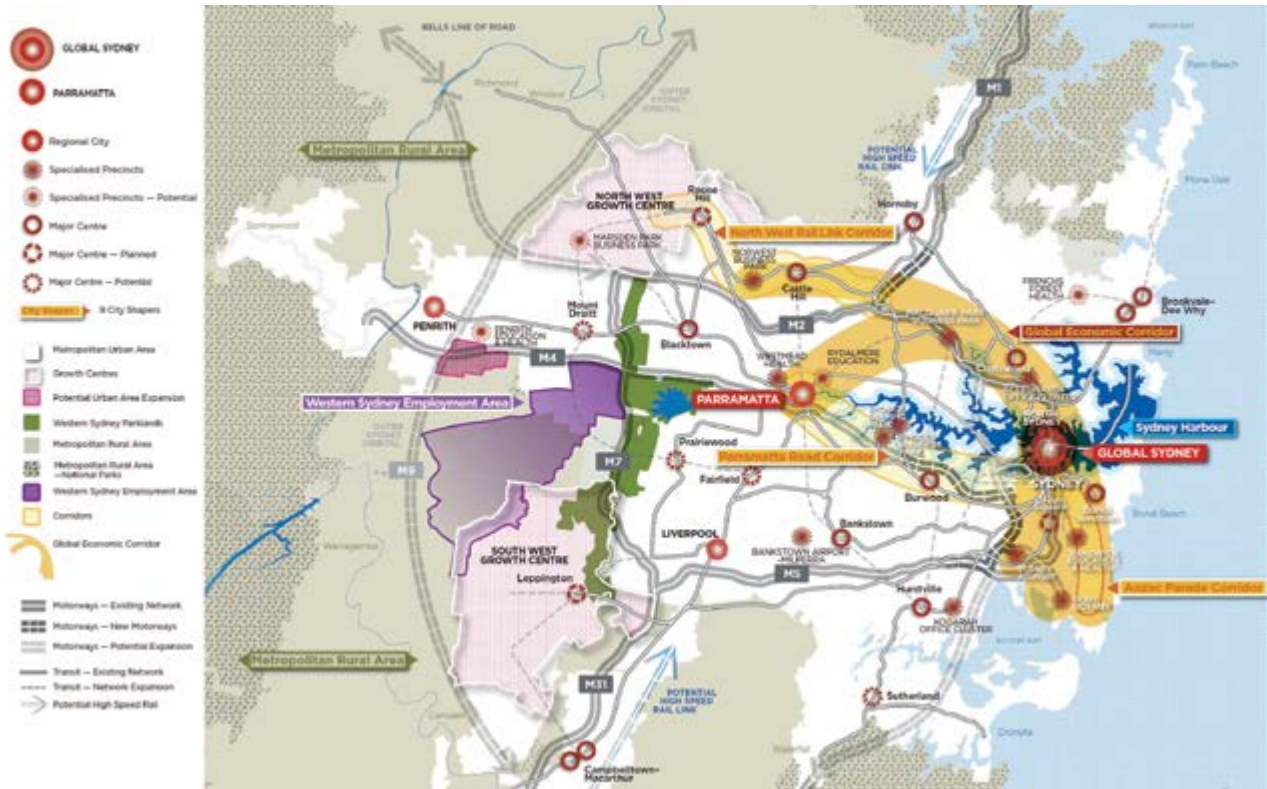


Figure 2: Vision for Sydney NSW in 2031.

Source: NSW Department of Planning and Infrastructure

2010). The 1997 reforms constituted the forerunner of more drastic and more controversial reforms to the state planning system which followed.

In March 2011, the Labour Party lost the New South Wales state election after sixteen years in power. The winning Liberal-National coalition ran their election campaign (in part) on the back of widespread resentment over Labour's planning reforms – the most controversial of which related to new ministerial powers over major projects. In effect, the minister had been granted the power to determine the fate of any project by declaring it to be of major (state) significance and thereby removing it from the jurisdiction of the local planning authority.

The new state government abolished this provision immediately after coming into power. Shortly after, the government embarked on the much-lauded path of drafting new planning laws and designing a new planning system. Results since

then, however, have received a mixed reception from community, institutional and developer quarters alike. Consultation processes have been poorly handled. Some reforms to the existing system will apparently be retained in the new system. Developers advocate some by-passing of local councils in order to eliminate perceived delays in getting decisions on development applications. At the Sydney metropolitan level, there is constant pressure from developers to release more 'greenfield' sites for housing. There have even been claims that the state government itself has been ignoring recommendations of its own internal consultation team which was appointed to manage the introduction of the new planning system etc.

Since it took power in 2011 the new conservative government in NSW has introduced many reforms to the state planning system, and at the time of writing is considering the introduction of

many more through a re-write of the current statutes. The discussion below is based on the contents of the April 2013 NSW Government White Paper entitled “A New Planning System for NSW” and the conversation around it. The major changes can be summarised as follows:

Ecologically sustainable development

The mention of ecologically sustainable development (ESD) has been replaced with narrower ‘sustainable development’ in the proposed new planning system. The precautionary principle, biodiversity, ecological integrity and the polluter pays principle have been omitted altogether. This reflects the trend in planning in recent years to give pre-eminence to economic development over ecological sustainability.

Assessment of development applications

The white paper points to a major shift to ‘code-based assessment’ for a range of residential, commercial and industrial development. Councils will have to approve a development application in 25 days if it meets performance criteria set out in the Local Plan. The new planning system will aim to increase exempt/complying code-assessed development from the current 23% to 80% in five years. The remaining 20% (high impact) development applications will be merit assessed.

Rights of local residents to object to unwanted developments

Community participation will take place at the strategic planning stage, rather than the development assessment stage. Concerns have been raised about the communities’ capacity to engage at the plan making stage. Communities tend to engage/react to the concrete development proposals in their local areas. In the proposed planning system, communities will lose their ability to have any say once the local plans have been made.

In short, the record shows that at the time of writing, planning in New South Wales is not taking a cohesive direction. Its path is uncertain and confused – despite frequent official claims that all is well. Reforms appear to be driven by short-term priorities and concessions to powerful lobby groups rather than by concerns for long-term issues. In metropolitan Sydney, the perceived

shortage of land supply (for example) seems to be driving a number of reform measures. It seems clear that reforms introduced during the past decade have overwhelmingly favoured development at the expense of a concern for the environment; and have had the effect of entrenching state controls over those available to elected councils at the local level.

Ontario, Canada

In Ontario, the most significant and recent planning reforms took place in the mid-2000s under the current Liberal government. Like New South Wales, these reforms have affected the balance between provincial and local power as well as the relative importance afforded to protecting the environment versus facilitating development. The *Planning Act* was substantially amended – first in 2004 with the *Strong Communities (Planning Amendment) Act* and again in 2006 with the *Planning and Conservation Land Statute Law Amendment Act*. Other legislation was introduced to guide land-use planning decision-making in the Greater Golden Horseshoe (GGH) – a densely populated sub-region of Ontario centred around Toronto (Canada’s largest city) containing 68% of the province’s population. Of particular importance was the *Greenbelt Act, 2005*, the corresponding Greenbelt Plan; and the *Places to Grow Act, 2005* with its corresponding Growth Plan for the Greater Golden Horseshoe. All these instruments were intended to protect agricultural land and curb sprawl in the GGH.

As stated by the Environmental Commissioner of Ontario (2011a, p.2), “over the past decade, there have been dramatic changes in land use planning in Ontario, due to the shifting balance between provincial and municipal roles in land use decisions, the creation of regionally based land use plans such as the Greenbelt Plan, and the introduction of growth plans to encourage urban intensification.” Key components of the Liberal’s reform “package” (called the “Strong Communities Initiative”) affected the power relationship between local municipalities and the provincial government. Municipal control over certain land-use planning functions and the development approvals process were increased; and the power of the independent appeal tribunal – the Ontario Municipal Board (OMB) – to override municipal

decisions was decreased. At the same time, the reforms increased provincial control over matters of provincial concern, including its desire to decrease urban sprawl in the Greater Golden Horseshoe region (Ministry of Municipal Affairs and Housing 2004 and 2007; Niagara Escarpment Commission n.d.; Stikeman Elliott 2007; Longo 2007; Moore 2011).

Reforms to the Planning Act

The amended *Planning Act* became law on January 1, 2007. The following key reforms, including reforms to the power of the OMB, reflect the shift of power from the Province to municipalities in the day-to-day business of planning and development assessment:

- Urban boundaries and changes to employment lands within an urban boundary can now only be modified by a municipality. Whilst previously there were no restrictions on appeals of municipal decisions to refuse conversion of designated employment lands to other uses or decisions regarding urban boundary changes, refusals now cannot be appealed to the OMB, making the municipal decision final.
 - Site plan control – the tool through which municipalities approve developer’s plans for particular sites – was changed to enable municipalities to impose regulations on aspects of development such as colour, texture, materials and design of buildings. Previously, these were specifically excluded from site plan control. Municipalities can now control external design details thereby increasing their power to create planning policies which meet unique local requirements.
 - Municipalities were empowered to pass zoning by-laws with conditions, a power which did not previously exist. For example, municipalities can now set conditions related to energy efficiency or brownfields clean-up prior to approving a zoning application.
 - Municipalities were given more time to review planning applications before they could be appealed to the OMB.
 - Approval authorities and OMB must now explicitly “have regard for” municipal decisions. This was not an explicit requirement before, meaning that on appeal, the OMB was not required to take into account the decision of a municipal council.
 - The OMB now will generally hear appeals based on the application that was presented to a municipal council. If new information is determined to be significant, the OMB may send it back to the council for consideration. Previously, there was no restriction on the information that could be presented to the OMB.
- On the other hand, amendments were also introduced which granted to the Province more “overarching” power in terms of using provincial plans and policies to guide land-use development in the province. In particular:
- It is now mandatory that all planning matters “conform to” Provincial Plans and Policies, “are consistent with” provincial policy statements; and “have regard to” matters of provincial interest.
 - Municipalities are now given directions in the *Planning Act* as to the types of matters that must be addressed in official plans. They must also now update their official plans every five years to ensure conformity to provincial plans and consistency with provincial policy. Zoning by-laws must now be updated within 3 years of revising an official plan. There was no formal requirement to update prior to these amendments.
 - The Minister is now able to advise the Ontario Municipal Board if a proposed official plan, zoning by-law or related amendment will, or are likely to, adversely affect matters of provincial interest. If that is the case, Provincial Cabinet will finally determine the issue, over-riding the OMB decision if necessary. Previously, the OMB decision was final.
 - Section 2 (Matters of Provincial Interest) was revised to add a new provincial interest that identified authorities shall have regard to sustainable, transit-supportive and pedestrian-oriented development.
- Another key set of amendments also affected the role of the public in planning decision-making. Whilst increasing opportunities to participate at the “front-end” of planning decision-making in the consultation phase, appeal rights to the OMB

were severely restricted. The effect is to encourage resolution of issues sooner rather than later. For instance:

- On the “front end,” municipalities now have to hold an open house in addition to and prior to holding the required public meeting for most planning applications (e.g. particularly official plan amendment applications and zoning by-law changes). The open house must occur at least 7 days prior to the public meeting in order to allow public opportunity to review and ask questions about the information and material filed by the applicant. Open Houses were not a requirement previously.
- In terms of appeals, to have standing before the OMB, one must have made oral or written submissions to council on the matter. Previously, there was no restriction on parties and information/material at OMB hearings for appeals of planning decisions. To balance this, the OMB can allow new parties if there are reasonable grounds.

In short, the suite of recent reforms to the *Planning Act* (similar to the reforms of the mid-1990) has increased the role of municipalities in day-to-day planning, whilst increasing the role of provincial policy in shaping the nature of development in the province. Alongside these changes, the role of the public has increased at the “front-end” of strategic planning and development assessment, and appeal rights to the Ontario Municipal Board have been severely limited.

Introduction of new legislation

As part of the Strong Communities Initiative, the *Planning Act*, was complemented by new provincial legislation in 2005 controlling land use patterns in southern Ontario, especially in the GGH region. In response to population growth in this area, and to a perception that such growth was invading southern Ontario's natural areas and agricultural land, the *Greenbelt Act, 2005* was enacted. It authorised the preparation of a Greenbelt Plan to create a greenbelt of agricultural and environmentally sensitive land surrounding the GGH. The Act stated that all Greenbelt decisions (including those made under the *Planning Act* by municipal councils, provincial ministers, or the OMB) must

conform to the Greenbelt Plan which essentially prohibits development in designated Specialty Crop Areas, Prime Agricultural Lands, and Rural Lands – together termed the Protected Countryside – within the Greenbelt. In particular, residential lot severances in these areas are strictly controlled and the expansion of settlement areas into the Protected Countryside is prohibited. Where there is a conflict with an Official Plan, Zoning By-Law, or the Provincial Policy Statement, the Greenbelt Plan prevails. Affected municipalities were required to align their Official Plans with the Greenbelt Plan (Ministry of Municipal Affairs and Housing 2010; Environmental Commissioner of Ontario 2011a).

Complementing legislation outlining where growth could not happen, the Province introduced in 2005 the *Places to Grow Act, 2005* which authorised the creation of a Growth Plan to accommodate the projected GGH population increase. According to the Environmental Commissioner of Ontario (2011a, p.27), through detailing density targets and planning priorities for managing growth in the region, “the [*Places to Grow*] Act and the GGH [Growth] Plan were seen as critical to the success of the *Greenbelt Act* and Greenbelt Plan. The goal of preserving outlying natural, rural, and agricultural lands is inextricably linked to the need to formulate and implement plans to direct, control and transform the nature of urban growth in southern Ontario.”

More specifically, the Growth Plan for the GGH (GGH Plan) directs growth to built up areas through the establishment of urban growth centres and intensification corridors, establishes an intensification target of 40% of all residential development occurring within built-up areas, and makes public transit the first priority for transportation infrastructure planning and major transportation investments (Ministry of Infrastructure 2012; Environmental Commissioner of Ontario 2011a). Like the Greenbelt Plan, all land-use decisions in municipalities affected by the GGH Plan must conform to the Plan and where there is conflict with an Official Plan, Zoning By-Law or the Provincial Policy Statement, the GGH Plan prevails. In adopting the standard of “conformity,” the Province ensured that, in the GGH region, its policies prevail over local policies, thus taking a leadership role in directing growth and protecting agricultural land and natural areas in this region.

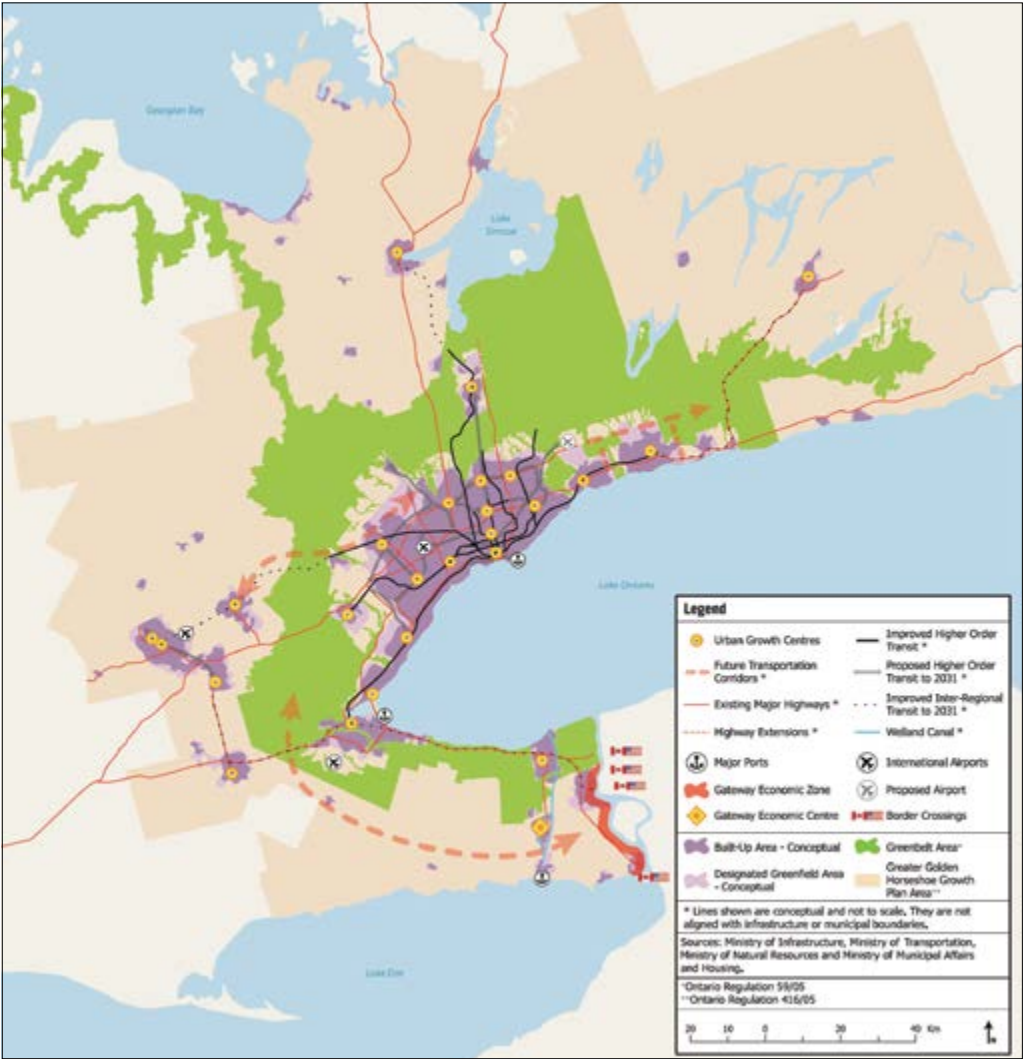


Figure 3: Greater Golden Horseshoe Growth Plan. Source: Ontario Ministry of Infrastructure

A COMPARISON OF MOTIVATIONS, RHETORIC, AND CONTROVERSY SURROUNDING PLANNING REFORMS

New South Wales

New South Wales planning reforms have been made under various guises. Under the neoliberal umbrella theme, various flags have been raised: the economy is being retarded; the interests of small-scale developers (mums and dads?) are neglected; the need for efficiency and speed has been ignored. Discursive democracy has been another theme used to justify the reforms. State planning ministers and apparatchiks wave a magic wand and miraculously discover what people want from planning. Developers' lobbying and the state's desire for central control of planning have also been motivations in the process.

An intriguing aspect of the latest coalition government reforms is its insistence that new housing development should take place on the fringe of the Sydney metro region. The state is averse to in-fill development in existing suburbs closer to the city centre, where affluent NIMBY communities tend to oppose any new developments in their areas. In New South Wales, there is a direct conflict between local planning actions (with their implications for the natural and built environment), and planning activity at the state level.

There is an important question here. Are societal norms better determinants than planning laws when it comes to shaping the natural and built environment? Perhaps law-making in planning should be informed by the socio-economic and cultural directions of society. Experience suggests that ignorance and misunderstandings are commonplace in the co-called 'consultation process'. Ask people directly about planning – and typically there will be blank faces and confused responses. Vested interests tend to dominate consultation meetings. In recent such exercises in NSW, attendances by the general public were poor whilst lobbyists (either for developers or for green groups) were there in strength.

Of equal if not greater concern in this context is the fact that in NSW, changes are quietly being pursued before the new system has been fully debated – let alone adopted by the parliament. On the one hand, the new government came to

power with a promise of empowering local communities, whilst on the other hand, the same government is taking initiatives which appear to by-pass local councils and communities. Paradoxes abound: fringe development is allowed when there is no demand; new motorways are proposed when people are losing interest in cars; and large new retail centres are approved as more people are switching to shopping online. It might reasonably be concluded that state planning policies could find themselves diametrically opposed to socio-cultural trends and realities. Urban society has moved on – leaving the NSW planning system stranded in a mix of obsolete values, vexatious power plays and vested interests.

Ontario

A review of government documents and press articles dealing with the "*Ontario Planning Act*" from the late 1980s to present reveals that (as in NSW) rhetoric is ever-present in the planning discourse in Ontario. In both places, the rhetoric changes with the reigning political party's motivation for amending planning legislation.

However, unlike New South Wales, the rhetoric in Ontario – and leaving aside the Conservative era of the mid-1990s – has not been strongly "pro-development". Instead it has leaned towards characterizing developers as "out of control". In the early-1990s, for example, the New Democratic Party undertook to change the *Planning Act* with a focus on protecting and conserving the natural environment, prompting some to characterize the amendments as adopting a "...very negative attitude towards developers" (Canadian Press 1992, p.A8). The government, on the other hand, saw the changes as balancing development and environmental protection – especially the protection of prime agricultural land. Streamlining the approvals process was seen as a way of "appeasing" developers. For the government it was a way of encouraging "good development to take place a lot faster" (Crone 1994, p.A9).

In the mid-1990s the economy was emerging from recession. Under the newly-elected Conservative Party, the rhetoric took a new focus: facilitating development, and releasing the province from local land-use decision-making (particularly in the area of environmental protection). The development process was to be speeded up; "costly

red tape” was to be reduced (Platiel 1995, p.A7). The *Planning Act* was hastily re-written. Recent amendments introduced by the New Democratic Party were repealed. Provincial environmental regulations and regulatory powers were diluted. Officials asserted that they were removing red tape in order to expedite the planning process because the previous government’s reforms were “killing development and jobs” (Brennan 1995, p.A11). In other words, the *Planning Act* stood in the way of development and economic growth. Under the current (2013) Liberal government the pendulum has swung back towards provincial oversight of local development, largely in order to curb urban sprawl and limit environmental damage. When the Liberal government was elected in the wake of a booming economy, there was a sense that Conservative amendments to the *Act* were allowing development to get “out of control.” In particular, public outcry from proposed development in the environmentally-sensitive Oak Ridges Moraine area prompted the newly-elected Liberal government to take more of a leadership role in protecting the environment. According to the Ministry of Municipal Affairs and Housing (MMAH, the provincial ministry which administers the *Planning Act*) (2007, p.1), the planning system was updated because:

Improved land use management contributes to the social, economic and environmental well-being of Ontario’s communities. To meet these goals, municipalities are being given the tools they need to influence and reshape our communities so they can develop in compact, integrated and more sustainable ways. Updating the planning system is necessary in order to meet challenges faced by this province’s changing and maturing communities, including:

- Managing growth and addressing the consequences of sprawl.
- Preserving valuable green space and natural resources.
- Promoting development where services and infrastructure are already available.
-

More specifically, the MMAH articulated in 2004 that the province faced a number of pressures

that needed to be addressed through the planning system, including:

- Increasing gridlock as a result of urban sprawl;
- Unprecedented growth pressures in some parts of Ontario, such as the Golden Horseshoe region;
- Loss of prime agricultural land and other resources;
- The need for enhanced environmental protection; and
- The need for a strong economy.

It would therefore seem that the motivation for recent legislative amendments and new statutes (*Greenbelt Act* and *Places to Grow Act*) has been to place further limits on development to curb sprawl and reduce the loss of prime agricultural land. In direct comparison to NSW, many recent reforms in Ontario have probably slowed the development assessment process because of increased time to consider applications and appeal proceedings, and requirements for additional matters to be included in those applications. In addition, the new municipal authority to consider a structure’s exterior in site plan control “may result in a slower processing of development applications” (Longo 2007, p.2). Other differences between Ontario and New South Wales are noteworthy. Against the strong “pro-development” focus in NSW is the return in Ontario to control of what developers can do in the name of curbing urban sprawl. The *Planning Act* has not been as vilified as the *Environmental Planning and Assessment Act* in New South Wales: despite the Greater Toronto Area being one of the fastest growing metropolitan areas in North America. Neither has the planning system been seen as presenting “barriers” to development which necessarily must be removed. If anything, there is a strong undercurrent in Ontario in statements by government officials, by interest groups, and by the media that developers have had it “too easy”; and that they need to be controlled by a strong “provincial vision” of where and how growth should occur – a vision based on environmental sustainability. This is not to say that Ontario has been free of planning controversy. The fact is, however, that planning reform has been less of a target for criticism and interest than it has been in NSW.



Figure 4: Exuberance of Planning Reforms NSW. Source: authors

Indeed, as Moore (2011, p.1) states, “since the mid 1990s, residents and local politicians have vilified the Ontario Municipal Board” as being “pro-development.” In 2007, the provincial government acknowledged that, in the case of the OMB, there is a “perception that the concerns of ordinary citizens are not dealt with fairly or given the same attention as the interests of developers” (MMAH 2007 p.8). The government also acknowledged that a more general concern with the OMB is that it is undemocratic: “There are those who argue that allowing un-elected OMB members, appointed by the province, to substitute their own land-use planning opinions for those of elected councillors is undemocratic and has the effect of undermining the authority of elected councils” (MMAH 2007 p.9). Interest groups such as the Federation of North Toronto Residents and the Federation of Urban Neighbourhoods have echoed these concerns. Concerns about the pro-

development bias of the OMB and its undemocratic nature are also reflected in many of the newspaper articles reviewed for this research. Moore (2011,p.20) argues that the OMB, in making unpopular decisions, has allowed politicians to “...avoid real decision-making; real planning decisions are made mostly by City Planning and the OMB.” The same does not appear to be true of the Land and Environment Court – the appellate body for land-use planning conflicts in New South Wales.

CONCLUSION: KEY POINTS FOR FURTHER EXPLORATION

Planning reform in NSW and Ontario is politically-based. In both jurisdictions, depending on the government in power and the prevailing economic context, the balance between facilitating development and protecting the environment

changes, as does the division of responsibilities between the local and the state levels. Research for this paper finds that Ontario leans more toward environmental protection, while NSW leans more towards facilitating development. These leanings are reflected in policy, political rhetoric, the media, and citizen action.

It can be speculated that the differences between planning reform in Ontario and in NSW are a reflection of local cultural differences which in turn have produced different planning systems. In Ontario planning tends towards environmental protection and the limitation of development – even under a right-leaning government. Conversely, the focus in NSW is on protecting private property and facilitating development – regardless of the colour of the government in power at any given time. When the provincial government increases its power in Ontario, it does so in the name of environmental protection. In NSW, the motivation for either increasing or decreasing State power seems to be the facilitation of development.

Evidently, planning systems in both jurisdictions have been easy targets for criticism by ruling politicians, resulting in never-ending moves for “planning reform.” Changes in ruling parties and economic conditions seem to drive changes to land use-planning legislation. In New South Wales in particular, media focus on planning is a popular sport – even a “BBQ stopper” in political circles. In Ontario, planning remains the target of criticisms and reforms but it is not talked about (and certainly not vilified) to the same extent. Rather, criticism is directed towards the seemingly un-democratic Ontario Municipal Board, an easy scapegoat for any ruling party. For the authors of this paper, the roots of the curious phenomenon of planning itself being so controversial in New South Wales are intriguing and worth further exploration.

Also, this paper suggests that on the available evidence, the impact of frequent amendments and ‘tinkering’ with the planning systems in both jurisdictions are matters which can adversely affect the efficacy of long-term planning and the public perceptions of the planning system itself. The amendment syndrome – seemingly popular with politicians of all colours – would appear to be running counter to the trend in planning lit-

erature – and in the rhetoric of planning practice – towards encouraging policy-makers to develop plans and legislation based on long-term outlooks and ‘visions’.

There may be another more fundamental issue at stake here. If planning systems and plans are not given the opportunity to “find their feet,” and to be tested over time, how then can planners and planning agencies discover what works and what does not work? The risk here is that society will be encumbered with planning systems founded on unsound and untested evidence, political conjecture and intrigue. And citizens will inevitably lose faith in the system – will stop participating if they come to the belief that change will only occur at election time. Clearly, policy change is legitimate when a new government takes office; but for the urban planning system and all that it embraces, change needs to be based on sound evidence, rather than on the hurried short-term views and desires of vested interests. ■

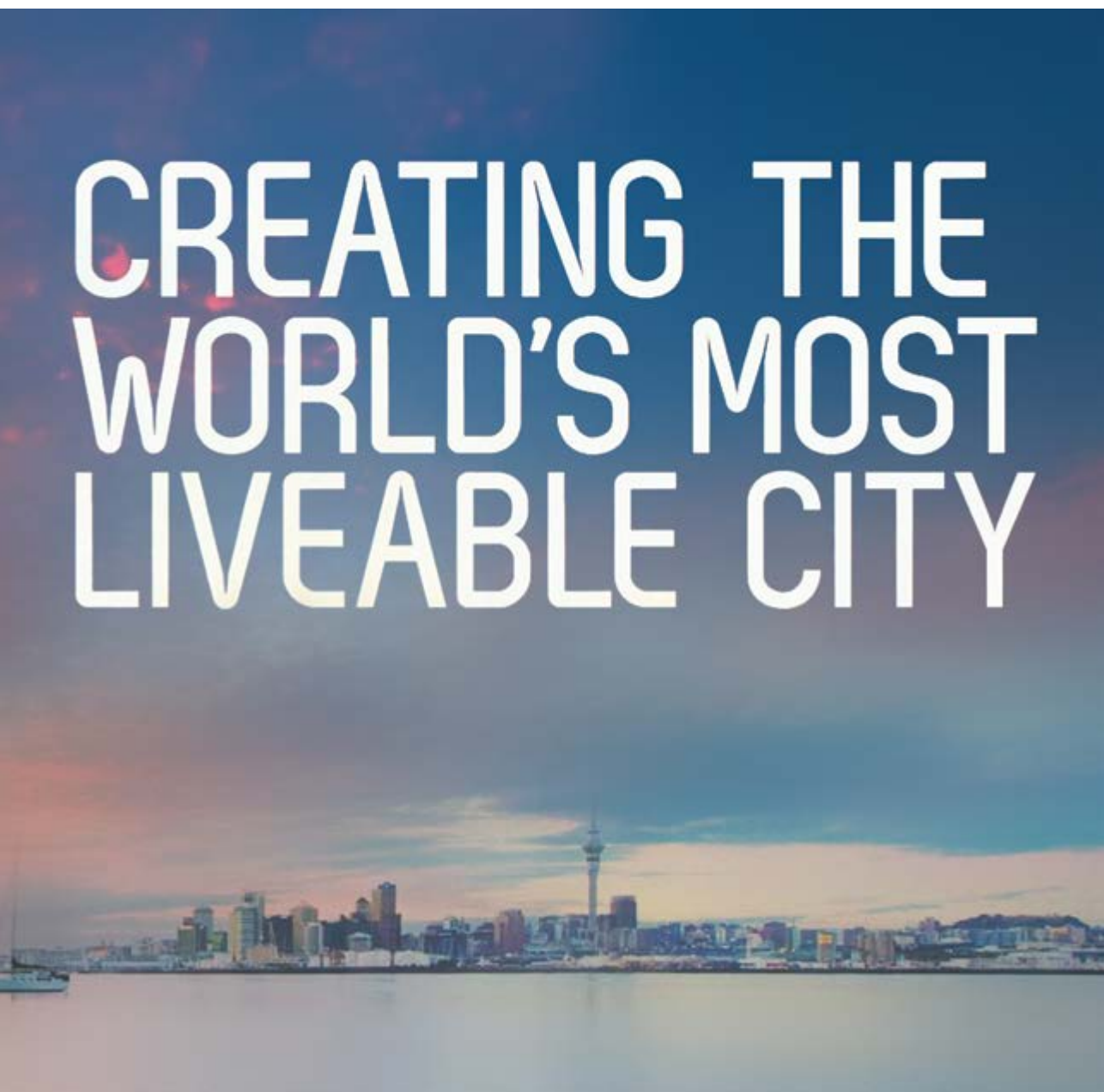
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AUCKLAND, NEW ZEALAND 2040: A RESILIENT, LINEAR CITY-REGION

Dushko Bogunovich

CREATING THE WORLD'S MOST LIVEABLE CITY



Auckland is New Zealand's largest city, and is being managed and planned by a single local authority covering the entire metropolitan region. A newly-elected council has produced the "Auckland Plan" which presents the official response to recent growth projections. This plan postulates a future urban form designed to curtail 'sprawl' and encourage compact, densified development within the existing urban boundaries. Underlying the plan are assumptions related to resource consumption, climate change, the need to protect rural lands on the fringe, the perceived loss of 'unspoiled' landscape, and other plan elements. The paper acknowledges the importance of these matters but argues for a different approach, demonstrating that a landscape-based methodology for 'ecological urbanism' can produce a radically new and arguably more sustainable urban form. Under this alternative model, the future Auckland could be a low-rise, regionally polycentric city supported by green, grey, and smart infrastructure with varying degrees of independence from the supply grids. The model was developed by Dushko Bogunovich and Matthew Bradbury and tested by the students of the DoLA at Unitec Institute of Technology, Auckland, under the academic leadership of the authors.

Source: Auckland Council

INTRODUCTION

Auckland is New Zealand's largest city. It is a conurbation rather than a single city, created over a period of about 150 years from more than twenty constituent cities and towns. However, New Zealanders refer to Auckland as one city, especially since 2010 when what had been commonly known as 'greater Auckland' was put under a single local government – the Auckland Council. The seven municipalities – four city councils and three rural districts – that used to comprise the Auckland region were merged into a single metropolitan region with a total population of about million and a half.

In 2011 the newly elected Auckland Council undertook to produce a long-term strategic vision for the 'super-city'. The document was simply named the 'Auckland Plan'¹ and its aim was to be comprehensive rather than sectoral (i.e. without particular emphasis on various aspects of the city's future – economic, physical, social or environmental).

Despite its aim to be comprehensive, it could be argued that the plan's central feature was the spatial strategy – a vision for the future physical form of the metropolitan area. The extra attention to the issue of urban form was understandable: not only had the city been growing fast throughout the 20th century but recent demographic projections were showing that it would continue to grow at a fast pace. The growth is generated from both inside (natural birth rates) and from outside (migration from the rest of the country and from overseas). It is now generally accepted that Auckland is likely to gain another million inhabitants in the next 30 years, reaching between 2.5 and 3 million between 2040 and 2050.

While there were some disagreements over demographic scenarios, the real issue was never

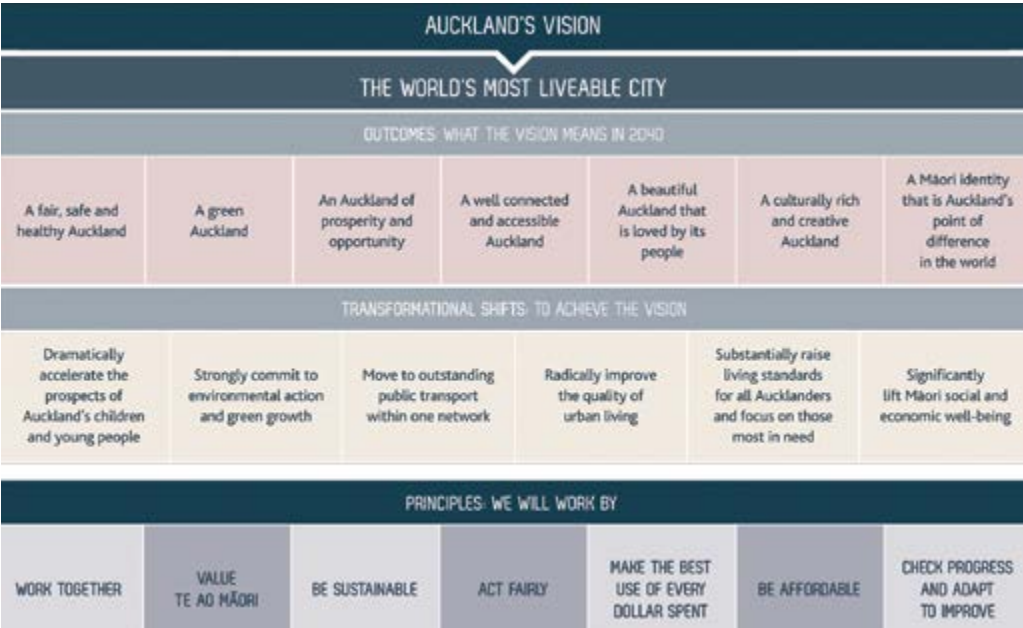


Figure 1: Auckland's Vision 2040.
Source: The Auckland Plan <http://theplan.theaucklandplan.govt.nz/>

the size of the population. Rather, the main debate (since 2011) has been about the future physical or urban form of Auckland - a continuation of an earlier discussion which went on for the better part of the second half of the 20th century. This discussion was about 'urban sprawl': the tendency for the city to grow horizontally rather than vertically. Like in most countries, this debate has been dominated by advocates of the 'compact city' idea. The prevalent low-density suburban model that shaped post-WWII Auckland had been blamed for a host of environmental, social and economic ills. From the outset, the council planning team took the position that 'urban sprawl' must be contained. To that end, the draft Auckland Plan stated that 70% of future growth had to be accommodated within the existing boundaries of the built-up area of the city, while only 30% would be allowed outside it, in the form of new, greenfield suburbs by the urban boundary and around a limited number of existing satellite settlements inside the region.

This paper outlines an alternative growth strategy for Auckland. This strategy differs significantly from the official 'compact city' vision (which now, in 2013, is being translated into a new, statutory

document, the Unitary Plan). The main differences are about development density and the future urban form. The position of the authors² of the strategy is that the link between density and sustainability is much weaker than is generally assumed, and that the low-density development scenario - often rejected because of high servicing costs - is not necessarily as inefficient as is commonly depicted. These positions have been argued in the literature for some time now, whether as a direct critique of the 'compact city' (Neuman 2005), or as calls for a new paradigm of urban sustainability (Bogunovich 2009).

We also anticipate – as well advocate – a major transformation of urban infrastructure over the next few decades. We see the typology and technology of urban infrastructure changing profoundly in the near future. There are several forces pulling in this direction, with climate change being the key driver. Important aspects of these anticipated transformations are decentralization and smaller scale and off-the-grid utilities operation. These will reinforce the already powerful centrifugal forces in the shaping of metropolitan form. This position runs counter to the predictions put forward by commentators who argue that 'peak

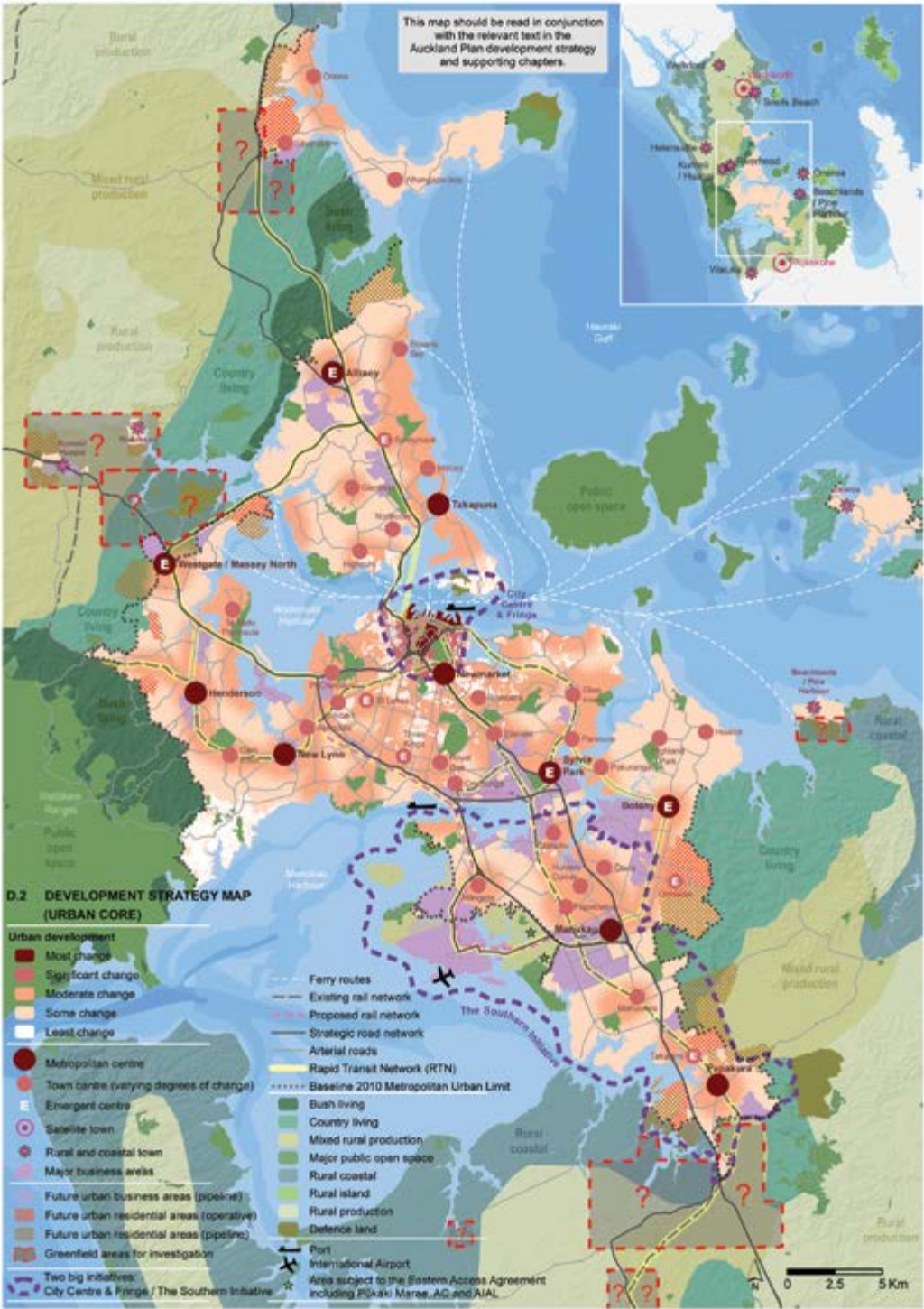


Figure 2: The Auckland Plan: The Spatial Development Strategy.
Source: <http://theplan.theaucklandplan.govt.nz/>

oil' is imminent and the higher price of fuel will trigger a re-concentration of population and possibly even a 'shrinking' of metropolitan regions. In our view, urban decentralization and dispersion are irreversible, and will not be significantly affected by the rise in cost of personal mobility.

Based on such assumptions, we argue for an alternative split between development inside and outside the urban boundary, to that which is proposed by the Auckland Plan. We postulate that instead of the rigid '70% inside the urban area/30% outside the urban area' policy being actually implemented, it is more likely that exactly the opposite will happen: about 30% of all new development will take place inside the urban boundary, while 70% will go outside it, one way or another. This does not necessarily mean more urban sprawl; the 70% could be distributed in a planned manner between the new suburbs, satellite towns and villages, and other urban centres of the North Island outside the Auckland region.

We also argue that the 'urban-rural' split is an unduly crude categorization, and that such a 'black and white' view of the metropolitan landscape – "city" versus "country" – is no longer a useful urban planning concept. A model that better reflects the contemporary metropolitan region is one that acknowledges that the 'urban boundary' is blurred. Instead of two categories – urban and rural – this model operates with four categories of regional landscape – urban, suburban, peri-urban and ex-urban. In the case of Auckland and the vexing question of where to accommodate the future growth, a roughly even split between the four categories – about 25% in each – seems the best policy.

Our proposition also stems from the recognition that, in the face of climate change and probable future resource shortages, Auckland will have neither time nor money to rapidly and/or radically transform its predominantly suburban form. Consequently, a realistic and pragmatic approach would be to retrofit the present built form with a range of features, which would make the existing fabric more efficient and self-reliant regardless of density.

We actually question the wisdom of encouraging high population densities anywhere in New Zealand, not just in Auckland, on safety grounds. The whole country is vulnerable to a variety of

natural and climate change-related hazards, and a policy of encouraging higher density development appears wilfully ignorant of its contribution to overall vulnerability.

THE AUCKLAND PLAN

The strategic exercise called the 'Auckland Plan' took place during a major reshaping of the urban planning agenda worldwide. Population growth, global economic competition, advancing climate change and looming resource shortages are high on the agendas of all big cities. 'Liveability', 'sustainability', 'competitiveness' and 'resilience' are now global buzzwords. Most cities are striving to reconcile these diverse objectives, rather than setting them against each other and seeking trade-offs.

The Auckland Plan recognises these trends. The document acknowledges that in a world of 9 or 10 billion people – with 5 or 6 billion dwelling in cities – it will be difficult to maintain the current levels of resource consumption and tolerate the present levels of waste generation. It also acknowledges that in a decade or two the effects of climate change will be severe and that this is likely to cause population shifts for reasons of safety and comfort. It believes, however, that New Zealand is less likely to be affected by this scenario, and that rather than having to deal with purely domestic problems, it is more likely it will be under external pressure to take refugees and migrants from less fortunate countries.

The Plan puts a strong emphasis on the concept of 'liveability'. In future, cities will compete to attract skilled workers primarily by being liveable and by forging strong links between the education and business sectors.

"Liveable cities need a competitive business climate and tax levels, a business-friendly culture, and excellent connectivity. To be recognised as innovation centres, cities will need to support education in the sciences and engineering; support the creation of leading research centres; foster closer links between those research centres and business; and foster collaboration between complementary sectors to encourage the development of new products and solutions to pressing issues." (Auckland Plan, 2010, p. 23)

Although it is not the capital, Auckland is New Zealand's largest city, its most important commercial centre and home to an estimated 1.5 million people - about a third of the country's total population. Auckland's economy is unrivalled by other New Zealand centres. The city is a hub of transport infrastructure with airports, ports, freight stations. Auckland is the gateway to the rest of this trade-dependent nation. Because of Auckland's economic importance and its role as a trade centre, the wellbeing of the entire country is closely intertwined with the city's success or failure.

The Plan also recognizes Auckland's unique physical character – the presence of natural landscape features in the city, its mild climate and the low-density residential environment which is well-suited to an outdoor lifestyle. Indeed, the Plan has adopted Mayor Len Brown's political platform that the overall aim for Auckland should be to become 'the most liveable city in the world'.³

This is not an unrealistic objective. Auckland already commands a high rank on the leading world indexes of quality of life:

- The Mercer ranked Auckland the 3rd in 2012;
- The Economist Intelligence Unit Livability Ranking declared Auckland 12th in 2012;
- The Monocle Most Livable Cities Index ranked Auckland the 10th in 2013.⁴

The economic rationale for creating the world's most liveable city is not difficult to understand. The aim is clear: to attract and retain the skilled and talented people and capital investment needed for a strong, high value-added economy. But this must be balanced with other objectives. And indeed, The Plan recognizes that good lifestyle and a growing economy are not enough: there also needs to be a more equitable wealth distribution and sustainable economy. A green Auckland with an emphasis on sustainability, fairness, safety and health would encourage prosperity and opportunity for all Aucklanders. And when it comes to a spatial development strategy, the Auckland Plan envisages that all these goals will be attained by pursuing the 'quality compact city' vision.

The 'quality compact city' will be achieved by increasing density within the urban boundaries. They were called 'metropolitan urban boundaries'

(MULs) by previous councils, and have now been renamed as the 'rural-urban boundaries' (RUBs). Growth outside these boundaries would be permitted too but limited to a number of selected satellite locations, such as Warkworth and Pukekohe. High quality urban design and the preservation of rural land are key aspirations of this plan.

The compact city model proposed in The Auckland Plan is loosely based on New Urbanist thinking and a number of overseas case studies. They all suggest that increasing density is the solution to creating both a sustainable and a liveable city. The compact city model is seen as offering a chance to limit and contain the much-maligned urban sprawl that is seen to be taking over Auckland region. Increased densities will support a more efficient use of public transport, will reduce energy consumption, and will create a better social mix and stronger sense of community.

The Auckland Plan offers several principles which are seen as essential if the aim is to concentrate urban growth within a defined geographical limit and achieve a well-designed compact city. The overall aim is to put "quality" first by moving through a phase of generational change and transition to a compact urban form: by encouraging growth primarily within existing urban areas, by defining a rural-urban boundary with staged release of greenfield sites and by implementing a decade-by-decade program to augment housing supply.

Approximately 80% of the city's landmass is currently in rural use, and the Plan proposes to continue to keep these areas rural and productive by limiting urban development. A high priority is placed on protecting rural land in Auckland. It is recognised that there needs to be a 'sustainable balance' between production, protection and all activities associated with rural character. This will be achieved by generating greater economic growth whilst making better use of existing infrastructure. Greater social and cultural vitality throughout the region, rural character and productivity will be maintained, while adverse environmental impacts will be reduced.

Overall, it is fair to say that the Plan takes a somewhat reverential position with regard to the 'rural' and 'natural character' of the land which is inside the new region, but at the same time also outside the visible city. The underlying assump-

tion appears to be that further suburban development would ruin the visual character of the green open space, which is perceived as 'unspoiled'. It is however well known that neither the remnant natural ecosystems/landscapes in Auckland region are really 'untouched', nor does the 'rural character' concept fittingly describe the new, quasi-industrial and lifestyle-residential character of the peri-urban belt.

AN ALTERNATIVE SPATIAL STRATEGY

The authors of this paper take a more tolerant view of the existing environment of suburbia. The suburbia of the 20th century may be an ecological sink and aesthetic eyesore in its present state, but this could change in the near future, as indicated in recent literature (Dunham-Jones 2008). Already, many Auckland suburbs are not visually offensive, and many are peppered with design, technology and innovation initiatives which are beginning to make them more sustainable – such as the growing Transition Towns movement.⁵

We believe that a cleaner, greener suburbia for Auckland is possible, and is to some degree – albeit by very small steps – already happening. It follows that a different take on urban sprawl is possible. A more tolerant view of the present suburbia would open our eyes to fresh, and perhaps even radical possibilities. For example, we could re-imagine Auckland by 2030 or 2040 as a metropolitan region of 3 million people where most of the urban fabric is operating as a giant 'farm' – a sprawling artificial landscape that harvests clean energy, food and rainwater, and treats and recycles its waste locally. Recent research shows that there is an enormous potential in the suburbs of Auckland to generate solar power and not only support the suburbs but also power the inner city (Byrd 2013).

We look favourably on the proposition that Auckland could or should become 'the most liveable city in the world'. But we question the rushed conclusion that 'liveability' necessarily means the same things as in European cities – excellent public transport, pedestrianized streets and packed sidewalk cafes. Our view is that if Auckland is to retain its status as one of the most liveable cities in the world, it has to exploit its low-density urban form. Low density is the very factor which makes Auckland's famous lifestyle possible.

Rather than trying to become a sustainable compact city, and start an uphill battle to beat Zurich and Vienna on their terms, New Zealand's largest metropolis should play the global competition game on its own terms. Auckland should strive to become a super-liveable, resilient urban region, at the core of which is a low-density city that settles comfortably into its extraordinary landscape and operates its metabolism in harmony with the local ecosystem.

The above proposition has economic ramifications beyond trying to attract overseas capital and talent. In the process of implementing a strategy for growth based on low-density sustainability, followed by a raft of innovative industries focused on green decentralised technology, many Auckland industries could embark on a voyage into the 'green knowledge economy'. This is a type of knowledge economy which many believe will be the key driver of the economy in the 21st century.⁶

Projects undertaken under our direction by students in the Department of Landscape Architecture at Unitec Institute of Technology in the first semester of 2012 have demonstrated that there are many possible ways (a range of settlement morphologies, housing typologies and so on) of implementing our strategy. Common to all these master planning experiments is that there are models of horizontal growth that protect New Zealand's natural and cultural heritage and avoid the 'endless sprawl' scenario. This assures us that a continuation of a growth policy for Auckland based on a centric, compact layout, supported by traditional, expensive and vulnerable infrastructure and fenced off from one of the most desirable residential landscapes in the world – would be an environmental, cultural and economic mistake.

We argue for a different approach requiring a more tolerant attitude towards further horizontal growth, instead of embarking on an aggressive

Figure 3: The diagram representing the 'Alternative Plan' for Auckland: the linear city acting as the urban spine of the metropolitan area, and the rest as an amorphous, partly self-sufficient suburbia and periurbia, oriented towards the natural landscape



and controversial policy of 'intensification' (which has already encountered resistance in many established suburbs of Auckland, now designated by the Draft Unitary Plan for intensification).

Auckland's regional landscape already contains many natural barriers to 'sprawl'. Given a different strategy of infrastructure provision (less reticulation, more decentralisation and better demand management), together with the introduction of green and smart infrastructure as key new components, we believe that the natural geography of the region could ensure that the excesses of the 20th century suburbia are not repeated.

The alternative spatial plan we propose is a low-density semi-urbanised region, with particular metaphoric shapes discernible at three spatial scales (or levels):

- a. A 300 km long, banana-shaped macro-region stretching along the north coast of the North Island;
- b. A 100 km-long crescent-shaped metropolitan region along the coast of the Hauraki Gulf
- c. A 100 km-long necklace-looking conurbation, with a N-S axis through the middle acting as an 'infrastructure spine'.

DISCUSSION

Our research and observations support our belief that the compact city model is not appropriate for the Auckland region and will prove ineffective and unachievable in the time-frame proposed.

We offer six main reasons in support of our view that the compact city model is unsuited to Auckland:

- The automobile has already been a major factor in shaping Auckland's growth; we have a par excellence example of a car-shaped metropolis here – this cannot be reversed overnight.
- The geography and topography of Auckland pose problems for creating a high density city; on the other hand, the isthmus constrains and directs the growth with its many estuaries, hills, basins and volcanic cones.
- Modern technology – by which we mean the TT-IT-ET nexus (transport technology, informa-

tion technology, environmental technology) – is evolving fast; in the process, it is facilitating easy mobility, excellent connectivity and resource-and-waste self-sufficiency. Together, these trends drive more decentralisation in metropolitan living and economic activity, regardless of the high probability that the cost of motor fuel will increase two to three times in the near future.

- There is abundant evidence suggesting that the sustainability debate involves more than cars, travel distances and density. Buildings are the primary culprits for GHG emissions and dirty energy consumption, not vehicles. Even the (un)sustainability of urban transport itself is not so much about driving as such (affected by distances and densities) as it is about the inefficient and wasteful regimes of car usage (generated by bad habits and poor locational decisions).
- The new focus on resilience (instead of sustainability, understood as mitigation) tells us that low density urban development is less risky. On many accounts high density cities are dangerously dependent on outside resources; also, in case of natural disasters, more damage is likely where people and services are concentrated in a risk zone.
- Liveability and lifestyle are important factors if Auckland is indeed to become one of the 'best' cities in the world in which to live. Facilitating a close, everyday connection to its extraordinary natural landscape is more likely to attract the type of people we are told we need in Auckland if it is to become a successful global city. High-density city living can be found in many other world cities, whereas Auckland has an opportunity to become a unique city, instead of attempting to imitate the dense urban environments of the Old World.

Our alternative development strategy sees landscape as the new infrastructure – the so-called green infrastructure – and is based on a close cartographic study of the recent history of Auckland's development. This reveals a low-rise sprawling city along the north-south motorway system, with a strong acknowledgement of the importance of the natural water landscapes that penetrate the city. Our strategy recognises the



Figure 4: A typical Auckland suburb; 90% of Auckland urban landscape looks like this.

importance of global economic and environmental trends, and accepts the fact that cities play a critical role in the global battle for sustainable development. A new, green urban economy seems inevitable if the world is to avoid the worst climate change scenarios. Cities are the key player in this transition – as centres of consumption, and as the centres of innovation and production. But the transition will be hard and slow. Auckland, however is lucky; its transition should in fact be easy. Because of its low density and linear shape, Auckland 'is almost there'. What it needs is an organized effort to introduce green and smart technologies across the board and change human behavior.

Our research indicates that Auckland should grow as a combination of two different models. The first sees industrial, commercial, civic and intensive residential growth in a linear pattern that follows the existing State Highway One. This in fact is the 'compact city' model, but in a linear fashion.

Its central corridor could be described as a necklace, because it would have many distinct nodes. The second model predominantly guides the residential growth (including schools, local services and recreation), seeking natural landscape and climate amenity, and following the many waterways and coastlines along the isthmus.

Due to State Highway One and the historical railway line that connects Northland to the rest of the North Island through Auckland, a linear form and organisation are almost inevitable. They follow 'naturally' from the natural suitability of land for urban development. The sector of land suitable for urbanisation is about 100km long and on average 15-25 km in width. Given this naturally linear form, policies and instruments aimed at an alternative would struggle to succeed. Accordingly, we postulate that Auckland is destined to be a 'Linear City', with a transport network 'backbone' acting as the spine of the metropolis. Along

this backbone a series of urban nodes, such as high-density, mixed-use town centres, would punctuate important points. Each node would have a specific emphasis on a particular service or industry or amenity, which would make it unique, complementing other development nodes within the overall linear form.

This concept combines a landscape-led 'water' city with a transport-shaped 'linear city', thereby creating a deliberate duality. The two ideas highlight the tension in contemporary life between the discipline and rationality of work and the hedonism of free time and consumption. The duality heralds a new culture of urban living – the interaction of work and play, and economy and lifestyle. The linear city is the symbol and guarantee of Auckland's efficiency and the water city is the symbol and locus of Auckland's status as the 'world's lifestyle capital'.

In this model, the urban sustainability paradigm sees horizontality as a strength, not as a weakness. It is about a regional approach, a smarter use of low density areas, and hybrid infrastructure. In other words, it recognizes and builds on a symbiotic relationship between the city and its region, and pursues a polycentric development pattern with multiple densities across the entire region. This settlement pattern is supported by an integrated mix of green, blue and grey infrastructure.

We postulate that our proposed alternative model for Auckland has international relevance. Most of the global urban landscape in the 21st century will be suburban and peri-urban. However, this is not necessarily a repeat of the parasitic suburbia of the 20th century with their complete dependence on urban infrastructure. To the contrary, this could be a productive low-density landscape, consisting of partly autonomous individual properties, supported by a highly decentralised, 'smart', 'clean' and literally green infrastructure.

CONCLUSION

We foresee that Auckland 2040 will be a linear city, with a 100 km long 'infrastructure spine' running through its centre. On both sides of the spine will be suburbs with town and suburban centres. The spine itself is like a necklace – a corridor of fast-transit and other high order infrastructure connecting a dozen city-hubs. On the spine's flanks, both along

the sea-ward and land-ward sides, will be suburbs of varying densities. They will be endowed with local and natural amenities, and supported by a mix of green and technical infrastructure with varying degrees of independence/reticulation.

This study has demonstrated how a landscape-based methodology for 'ecological urbanism' can be developed from a close understanding of both infrastructure and landscape, to produce a radically new urban form for the 'post-city' Auckland. An approach to the city as a landscape, internally supported with green, grey, smart infrastructure, is not exactly a new idea – from Frank Lloyd Wright's *Broadacre City* in 1932, to Mohsen Mostafavi's (2010) book *Ecological Urbanism*. But in Auckland's case, due to a fortunate set of historic and geographic circumstances, this new model would be easy to implement. Therefore Auckland could be ahead of other big cities worldwide in this conversion to a different idea of urban infrastructure. By becoming a low-rise, regional, polycentric city, Auckland could become a new model of urban-regional development of relevance for all low-density cities in the world. This is significant, as similar low-density urban areas now comprise 60% of all urban fabric in the world. At the current rate of growth, within 10-20 years urban sprawl might even make 90% of all urban areas. For this expanding global ocean of suburbia, the compact city model is of little relevance. ■

Endnotes

- 1 Auckland Council: The Auckland Plan. 2011: <http://theplan.theaucklandplan.govt.nz/>
- 2 The 'we' here refers to the author of this paper and his chief collaborator at several stages of this alternative plan project between 2010 and 2013, Matthew Bradbury, senior lecturer at Unitec's Department of Landscape Architecture, in Auckland.
- 3 Mayor pledges to build world's most liveable city. New Zealand Herald, 2 November http://www.nzherald.co.nz/news/article.cfm?c_id=1&objectid=10684693
- 4 See a recent summary of all three lists on Wikipedia: http://en.wikipedia.org/wiki/Most_liveable_city
- 5 Transition Towns New Zealand: <http://www.transitiontowns.org.nz/>
- 6 UNEP: The Green Economy: <http://www.unep.org/greeneconomy/>

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PLANNING IN OCEANIA: THE CASE OF TONGA

George Mal Horner



Tonga's future is perhaps not dissimilar from those of a number of Pacific islands. It is supported by a traditional social structure and economic base that are confronted in the twenty first century with critical environmental realities of increasing sea level rise and ocean surges taking place within an active earthquake region.

Making informed decisions about its future development is vital and needs to be guided by the breadth of environmental awareness and social and economic insights. In developing a structure plan for the main settlement of Nuku'alofa [population 35,000], this project set out key factors for planning decisions within a remarkably supportive social climate. The article describes these factors in setting desired future goals for the delightful people of this nation of some 170 islands and atolls.

INTRODUCTION

The Pacific island Kingdom of Tonga, some 2120 km northeast of Auckland, New Zealand, has an in-country population of about 102,000 (2012). The country comprises some 36 inhabited islands and a further 140 that might be considered atolls. Habitation is highest on the island of Tongatapu [72,000], roughly half of which is concentrated in and around the capital, Nuku'alofa.

Historically, neither regional nor urban planning has been actively adopted anywhere within the archipelago. Decisions of a planning nature have been treated casually, either to be taken by someone in hereditary authority - or maybe avoided altogether under the less demanding conditions of local lifestyles. During the last 10 years, however, overseas aid has trickled into Tonga due to the perceived vulnerability of the archipelago as a result of global warming and anticipated sea level rise. The UN, World Bank, Asian Development Bank and the European Union continue to contribute to the evolving local planning capability. The Government's planning office, PUMA [Planning and Urban Management Agency], has been the main recipient of these funds and continues as the most responsible and likely source of planning expertise within the present government structure. There are, however, no fully qualified urban or regional planning professionals within the agency.

In this situation, the European Development Fund contributed funding for the Sustainable Urban and Environmental Management, Capacity Building and Environmental Protection Project [SUEM] in 2010, focusing on the Nuku'alofa urban area. The project was designed to carry out two main tasks: prepare a 20-year Structure Plan for the Nuku'alofa greater urban area and to develop the local planning capacity within PUMA, involv-

ing the 12 agency staff in all aspects of the project.

The project, operating under PUMA Director Tukua Tonga, began as a consortium of two Europe based planning consultants, eventually emerging under the single management of Huszar Brammah and Associates. The consultancy consortium brought together international expertise in urban planning, environmental analysis and engineering, transportation planning, civil engineering, urban economics, development control and GIS over a period of 20 months. The Terms of Reference (TOR) were sympathetic to conditions and to some degree flexible – and the Tongans were an equally flexible and supportive workforce.

This article outlines the approach taken under circumstances not atypical of conditions throughout the Pacific and especially Oceania: a traditional but changing society [in this instance, a monarchy]; an economy based on agriculture; small scale manufacturing; trade; public administration; and tourism. The Tongan economy is highly dependent on remittances from Tongan nationals living and working overseas. An estimated figure of some 110,000 Tongans live in Australia, New Zealand and in the US. Generations of Tongans have lived in this way, generously contributing to the Tongan economy at a rate of about 22 per cent of basic annual local income.

SUMMARY IDENTIFICATION OF ISSUES

It was deemed important to develop a method for knowledge exchange within the team to facilitate daily operation and decision-making, establishing step-by-step actions to guide the 20-month exercise for the Nuku'alofa Greater Urban Area [GUA] and to set up a learning/capacity building framework for the PUMA staff. This was necessarily based on the significant generic knowledge base of the Tongan planning staff [and later the Nuku'alofa inhabitants] and on the expertise of the international consultants. Key issues were identified regarding conditions in the present Kingdom of Tonga and those more immediately concerning Tongatapu Island and the Nuku'alofa GUA. Three immediate factors emerged:

Land administration and tenure

This matter is of fundamental and far-reaching

seminal concern for the Tongan nation. As is the case in many other Pacific Island nations, land tenure and management exist throughout the Kingdom under a hereditary system of ownership that has always provided – albeit inefficiently – for the progressive allocation of land from the traditional land owning class of society to the non-land owning adult male population. In the particular case of Tonga, the system provides for the division of 'tax allotments' owned by the noble elite to provide smaller fixed size 'town allotments' to all qualifying adult members of the non-land owning class for the purpose of housing and the growing of subsistence food.

The system has been central in the growth and development of Tonga and constitutes a pivotal element of all land-related matters throughout the Kingdom. Such is the centrality and strength of this traditional land tenure system that a 20-year planning program (as presented in this paper) must assume that it will most likely remain in place for the duration of this planning period, and that it will be a key factor to be considered in the ongoing implementation of the Structure Plan.

Notwithstanding this constraining factor, it needs to be acknowledged that the traditional system does contain considerable benefits in terms of protection of the use of land, and these have been used in the project to promote the use of tax allotments in new approaches to urban growth in the GUA. At the same time, it has become clear that the system also possesses seemingly insurmountable problems for planning and managing the effective future use of land. It is unclear how traditional control patterns in Tonga would prevail under the consequences of climate change and of growth and development, especially in the urban areas.

This issue of land ownership is pivotal in determining the people's relationship with the environment. If insecurity and uncertainty of land ownership are evident, people are unable to consider the long term, regardless of environmental impact, and may also be forced to live under unsustainable conditions. The project revealed this question as one which will need to be addressed comprehensively as a key consideration of national planning in the future. It raises key questions of the viability of traditional patterns of land distri-

bution in the face of environmental realities, and consequently the willingness of local customs to recognise the need for more accommodating methods as a part of the traditional controls held within the culture.

Climate change and disaster risk

Nuku'alofa is located along the north coast of Tongatapu Island and is adjacent to an inland lagoon that is also open directly to the ocean. It is located in a potential earthquake area; is subject to regular storm surges, especially along the north facing coastline; and average contours on-shore are very low in comparison to mean high water mark throughout the greater urban area. Despite these geographical realities, Nuku'alofa has never experienced a serious tsunami, although it is considered vulnerable to such events which are common regional occurrences.

However, since Nuku'alofa's existing traditional road hierarchy provides inadequate evacuation capacity for the population of the urban area, the combination of these several factors means the GUA has a serious disaster risk potential. Significantly, the current north-south transportation corridor has experienced chaos under previous evacuation alerts, requiring a critically revised procedure for the efficient movement of population from the vulnerable areas.

Thus, the local geophysical environment and local traditional land management system in Nuku'alofa together present an unusual if not unique set of problems to be faced in the search for an effective resolution of the long term planning challenge. They also need to be considered in all decisions taken within the 20-year time frame for the project; and will require comprehensive assessment for underlying remedial action in the immediate strategic and structure planning of the urban area. Given the foregoing conditions, the project was designed to bring climatic/geophysical needs into all planning tasks.

Prospects for economic development

As a key element in the early stage of the project, a socio-economic impact assessment was undertaken to determine factors relevant to the growth of the urban area. This study suggested that there is unlikely to be any radical departure from past trends in the economies of Tonga and Nuku'alofa.

In demographic terms the central assumption is that there will be a continuation of recent levels of net out-migration. Government would need to energetically set the scene for the private sector, by cutting red tape, reducing excessive taxation and, if possible, tackling the high price of inter-island freight. The main responsibility is seen to lie with the private sector which will need to respond more vigorously than it has in the past. Opportunities for expanding the tourism sector could enable additional growth. An optimistic position also sees room for an element of good fortune to enter the equation – as (for example) in the prospecting for offshore minerals.

DEFINING THE PROBLEM

Findings and research results illustrating the scale and extent of the project are set out below. They should be read having regard to the project's unusual if not unique geophysical context.

Environmental parameters

The study area is vulnerable to potential sea level rise, ocean surge conditions, earthquakes and tsunami threats. These activities and phenomena must be seen as key determinants of future planning actions. Without such recognition - and without the fullest possible knowledge and management arrangements relating to these disaster conditions - there can be no coherent strategic, structural or urban planning. Indeed, in such geographical locations, coordinated planning will largely stand or fall on the credibility of the environmental strategy.

Infrastructure parameters

These are directly linked to health, land-use activity and environmental conditions and expectations. In Nuku'alofa especially, conditions following even a moderate rainstorm or an ocean surge produce a surface drainage situation which is largely a self-fulfilling disaster due to there being no natural or manufactured channels for effective run-off or catchment management. The locational incidence of health conditions in relation to environmental factors provide indicators for the planning of surface water management, including the establishment of selective retention basins and ponding, designed as municipal recreational amenities.

Transport and access

Transportation patterns are currently little more than the affirmation of traditional pedestrian routes. As such they are inadequate and ill-equipped to handle either the current or future transportation needs within the study area. The required action includes a fundamental reconsideration of all aspects of the existing movement system, together with a major restructuring to meet critical current and future demands, including those involving new intra-island access corridors.

Urban conditions assessment

The project included a street-by-street assessment of the present urban area, making observations as the basis for a subsequent SWOT analysis and objectives formulation as a learning exercise for PUMA staff. These activities constituted the basis of a future urban design workshop.

Current legislation

The adoption in May 2012 of the *Spatial Planning and Management Act* [previously awaiting Government approval] provided PUMA with the legal

powers to support its planning actions in the GUA.

The subsequent project work plan describes specifically the predominant Strategic/Structure Planning sector of the project. A parallel Environmental/Civil Engineering sector operated on a slightly delayed schedule, providing the health, sanitation and drainage requirements associated with the planning task.

**STRATEGIC/STRUCTURE
PLANNING FRAMEWORK**

This summary of initial actions describes the setting of key data and strategies for the development of the Structure Plans and Guidelines.

Mapping and assessment

An early priority was the extension of the initial mapping facility within PUMA, including the setting-up of comprehensive GIS coverage of the greater urban area. This allowed the accumulation and recording of field data so that it could be made available as a decision making tool throughout the project and into the longer term.

Figure 1: Nuku'alofa GUA - sub-area boundaries



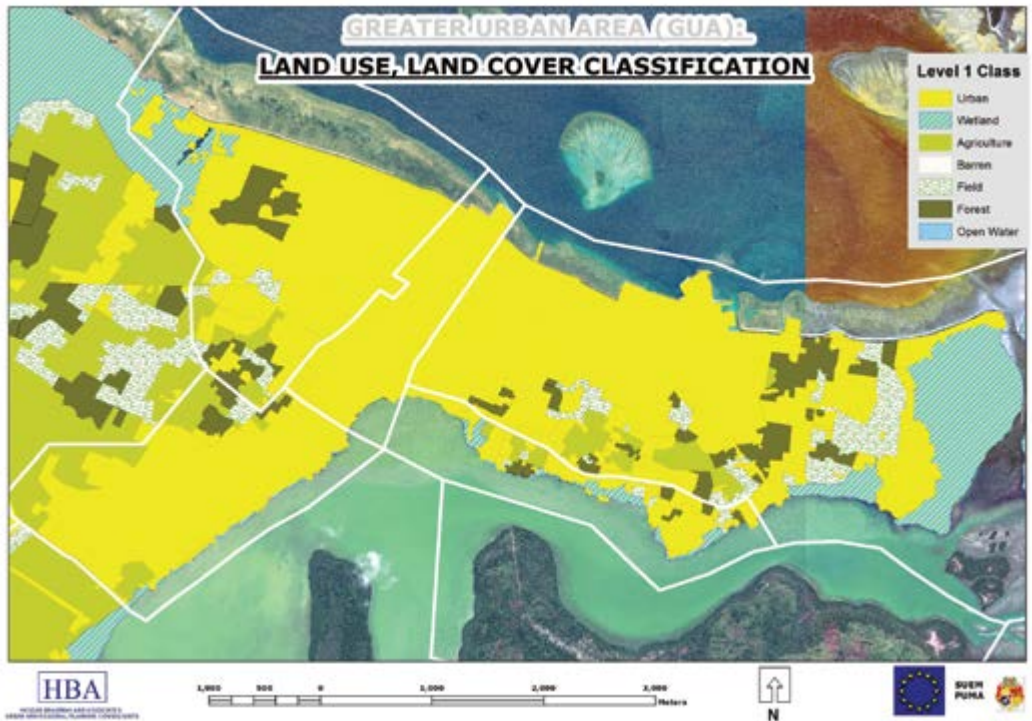


Figure 2: Nuku'alofa GUA - land use land cover classification: Level 1

Figure 3: Nuku'alofa GUA - land use-land cover classification: Level 2



Key issues analysis

The SWOT analysis revealed area-specific issues which enabled the setting of development objectives. These were assembled and refined in a series of in-house iterations drawing widely on associated findings, including environmental and transportation requirements and disaster risk indicators referred to above.

Community consultation involved 25 field workshops with both the local councils and the communities in each of the 13 selected planning sub-units. Future use of this revised planning process will subsequently require that similar consultation be established between PUMA and the councils and communities to maintain a culture of ownership for the operational and future plans.

Development Objectives – ranked by their scale of impact on the urban area

- 1 *Environment and land management*
To provide for a sustainable program of environmental management throughout the urban and regional area, coordinating existing conditions and new development, and setting improved standards of design at all levels;
- 2 *Transportation and access*
To address the serious under-provision of local and regional transport facilities and to provide more adequately for the efficient travel under both normal conditions and crisis situations within the GUA;
- 3 *New infrastructure*
To address the potential health hazards that could result from inadequate drainage, unsustainable sanitation schemes, poor management of water supply, and inadequate collection of solid waste; and to ensure adequate provision for electricity services;
- 4 *Amenities and community development*
To provide for additional public amenities in sub-areas, building facilities to a higher order; and to provide a more comprehensive level of service, ensuring adequate linkages between service centres.

STRATEGY STATEMENTS

Strategies have been drafted to develop the actions for achieving the objectives formulated following consultation with councils and communities representing the sub-areas and kolos [or villages] of the GUA. The strategies would be revised periodically to reflect changing ideas and realities for growth and development of the urban area.

Environment and Land Management Objective:

- S1** *Urban Environment Strategy*
Develop urban resettlement plans and adaptation strategy based on determination of environmental constraints and establishment of protected areas and reserves (13 sub-strategies)
- S2** *Historical Significance Strategy*
Identify all buildings, places and vegetation within the GUA of historical and cultural significance and implement appropriate actions (4 sub-strategies)
- S3** *Effective Land Delivery Strategy*
Promote innovative action to ensure the availability of adequate and appropriate land for growth in the GUA under a program of sustainable urban management (9 sub-strategies)
- S4** *New Sites Strategy*
Determine the strategic significance of major development sites in the GUA and coordinate conditions for new construction and its relations with the natural and existing built environment (10 sub-strategies)

A key strategy for Environment and land management was to satisfy the objective of setting over-riding controls on the nature and type of development in the GUA. This will require Government to resume into public ownership all developed land vulnerable to flooding. To plan effectively, several areas of current development need to be converted to reserves and protected zones, and new development must be directed to specific

locations. New development must occur only in appropriately designated locations as part of co-ordinated growth strategies with essential infrastructure. Clear indications exist that unless such strategies are adopted for vulnerable conditions in the area, the continued viability and existence of the urban area will be severely affected.

Areas to the west of Nuku'alofa and to the south of the lagoon should be assessed for appropriate development together with the consideration of innovative planning in current areas of tax allotment and plantation land (i.e. land devoted primarily to domestic scale cropping of fruit and vegetables). Such new areas of development need to be served by a system of land reserves protected from human exploitation. The relocation of inappropriately sited current construction is required to permit the reuse of these lands for new and appropriate uses. This strategy should be applied to the new siting of Government departments and training facilities in areas distant from the threat of sea surge and potential tsunami or other disasters, and in the location of an innovative physical tourism proposal. [36 sub-strategies are drafted to enforce this recommendation].

Transportation and Access Objective:

S5 *Traffic Movement Strategy*

Establish effective road hierarchies for the traffic movement system within the GUA and the sub-area framework, ensuring the distribution of regional and local traffic along a clearly defined operational road system to meet new regional and local parameters (14 sub-strategies)

S6 *Parking Strategy*

Develop a parking strategy for private and public use (7 sub-strategies)

Key strategies for Transportation and access were drafted to meet the objective of reprioritising road use within the GUA and introducing a new road hierarchy to address current deficiencies.

An effective system of evacuation during disaster alert should be an integral part of the redesign of the road hierarchy. A more effective use of the current urban street grid needs to be devised to maximise pedestrian safety and visual character,

serving public facilities and focal points. Dangerous road conditions at many school entrances must be resolved. Public transport needs to serve all parts of the GUA.

Specific and generalised public and private parking needs are required to serve all urban area locations, minimising vehicular encroachment in urban spaces. [21 sub-strategies are drafted to achieve this recommendation].

New Infrastructure Objective:

S7 *Drainage Strategy*

Provide the GUA with a comprehensive drainage program, and adopt operational environmental strategy for land use in relation to development of comprehensive storm water drainage and water storage systems (7 sub-strategies)

S8 *Sanitation and Water Strategy*

Establish a comprehensive water supply strategy that addresses current issues and provide a timetable for upgrading the treatment and removal of wastewater (5 sub-strategies)

S9 *Solid Waste Strategy*

Promote a comprehensive solid waste management program (3 sub-strategies)

S10 *Electricity Services Strategy*

Promote coordination of electricity services in planning for utility reserves and protection of cable systems under frequent storm and disaster conditions (2 sub-strategies)

All strategies for New Infrastructure are detailed in the related Environment/Civil Engineering component of the project and the specific reports for Drainage, Sanitation, Solid Waste and Electricity. [17 sub-strategies are drafted to enforce this recommendation].

Amenities and Community Development Objective:

S11 *Community Improvement Strategy*

Encourage the incremental enhancement of local neighbourhoods/sub-areas through

the development and maintenance of balanced residential, commercial and recreational communities to meet the needs of the changing Nuku'alofa community (8 sub-strategies)

S12 Public Facility Design Strategy

Increase the effective standards of the urban area in planning and design, ensuring better levels of safety and quality of life (8 sub-strategies)

S13 Pedestrian/Cycle Network Strategy

Establish a comprehensive pedestrian and cycle network throughout the GUA linking with significant points in adjacent areas and providing a viable alternative movement to vehicular travel (4 sub-strategies)

Within the Amenities and Community Development sector the overall aim was to promote increased and more effective levels of service to new sub-areas and neighbourhoods. This would involve

- The provision of facilities at the local level for health care, small commercial industries, street markets, open space and recreation, community activities and evacuation centres;
- The identification of areas for new housing in safe areas;
- The promotion of safety and design of buildings in relation to public spaces in line with the scale and character of the community;
- Regulating for the appropriate and alternative use of plots, and providing financial support for the relocation of property threatened by environmental events;
- Ensuring the provision of shade and protection for public areas from sun and rain;
- Encouraging the enhancement of urban streets with appropriate public facilities and focal points;
- Establishing a pedestrian-friendly and safe environment, especially safe pedestrian corridors to schools, together with proposals for combined pedestrian and cycle facilities; and
- Addressing pedestrian options in waterfront and tourism locations. [20 sub-strategies are drafted to enforce this recommendation].

STRUCTURE PLANS

Sub-area planning

Structure Plans for five selected urban sub-areas were developed to identify actions and strategies for the first 5-year period of the 20-year Structure Plan. The sub-areas, selected over time by planning staff and communities, represent viable physical locations based on current and potential criteria. All boundaries have been extended to include both the coastal reef and the lagoon to ensure that control is maintained over marine areas adjacent to the coastline. The areas were identified as:

Sub-Area **1** – CENTRAL;

Sub-Area **2** – WEST;

Sub-Area **3** – SOUTH;

Sub-Area **4** – EAST;

Sub-Area **5** – LAGOON.

A sub-set of 13 community centred units was also identified within the five sub-areas with the intention of promoting local level service centres capable of servicing smaller population groups. This deconstruction of sub-areas provides for place zoning as a substitute for zoning by land use, with development responding more directly to the nature of specific sites and the mixing of building types and land parcels to promote more inclusive neighbourhoods.

Structure planning documents;

Component plans were developed for land suitability, surface drainage infrastructure and transportation. A summary of the key structure planning components and action plans follows.

Environmental Land Suitability

Maps were prepared to show environmental constraints and areas suitable for alternative forms of development. Areas subject to rising sea level to the year 2100 were identified.

Surface Drainage Infrastructure

Coordination of the design of surface drainage and future sanitation programs was undertaken within environmental management parameters. Mapping for the GUA indicated natural flooding and drainage patterns in relation to planned retention areas potentially available for recreational use.

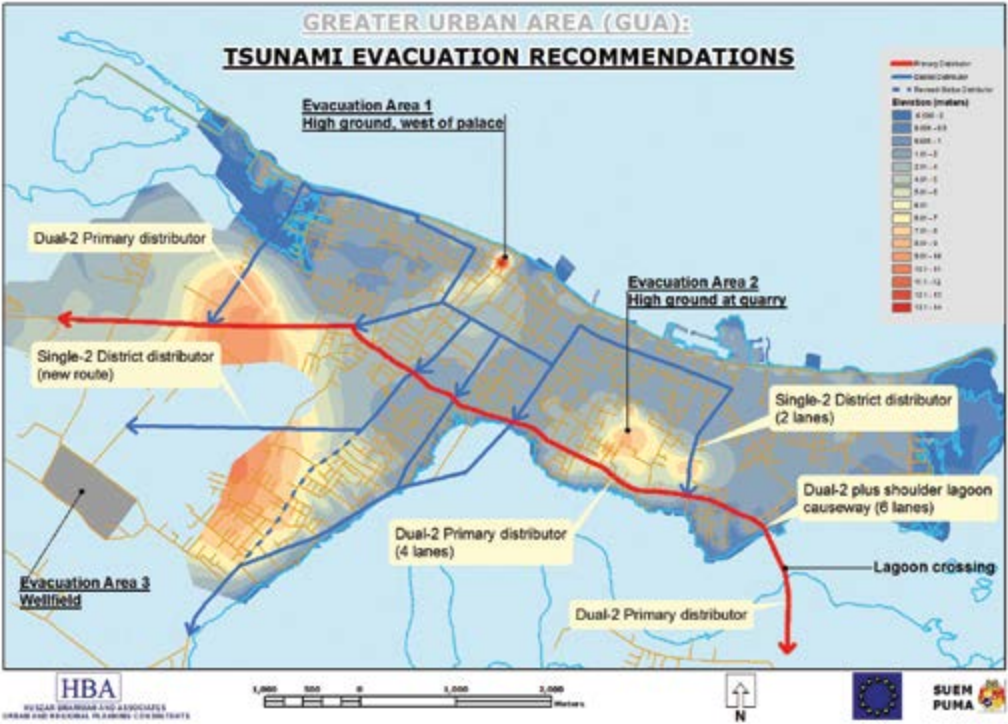


Figure 6: Nuku'alofa GUA - disaster evacuation recommendations

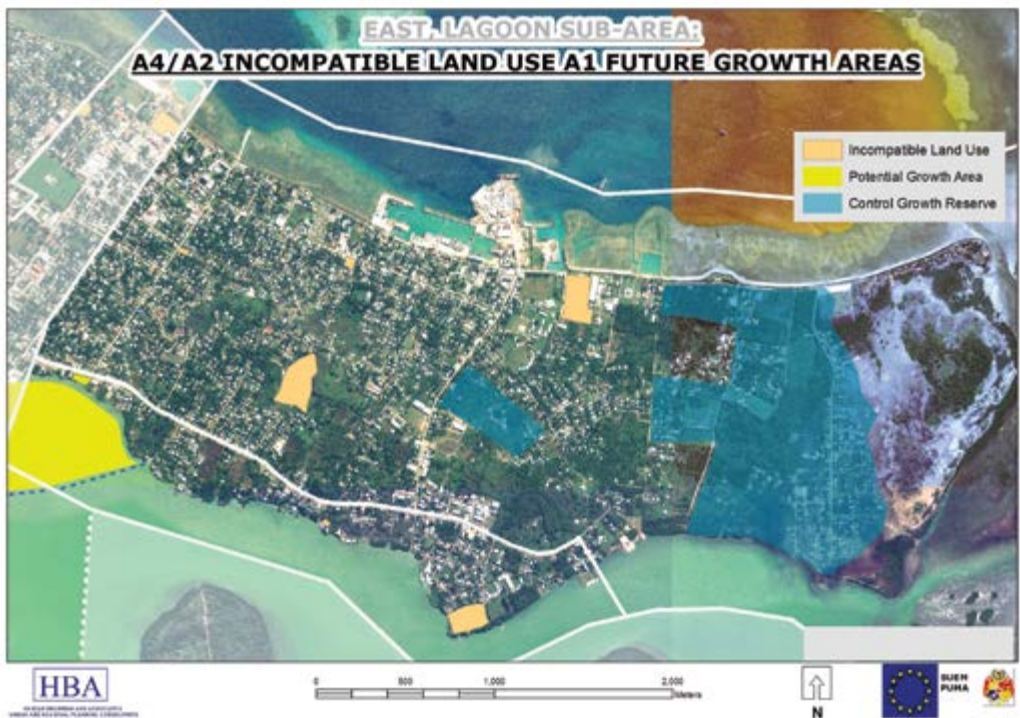
Figure 7: Nuku'alofa GUA - proposed road hierarchy





Figure 8: Nuku'alofa Action Plan - incompatible land use-limits of new construction

Figure 9: Nuku'alofa Action Plan - incompatible land use and future growth areas



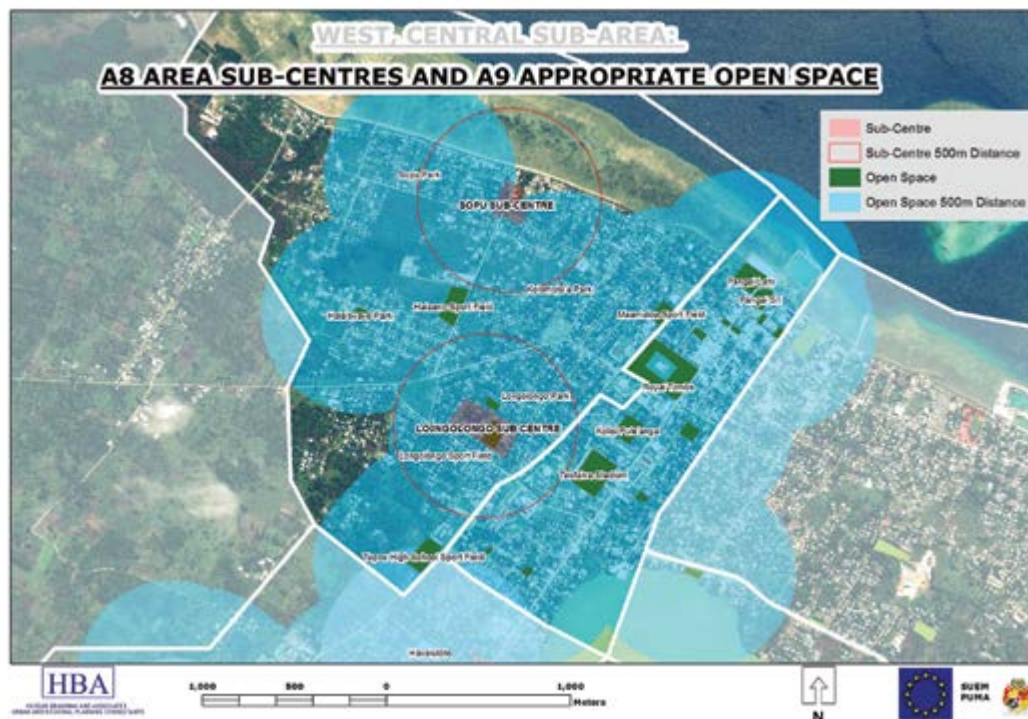
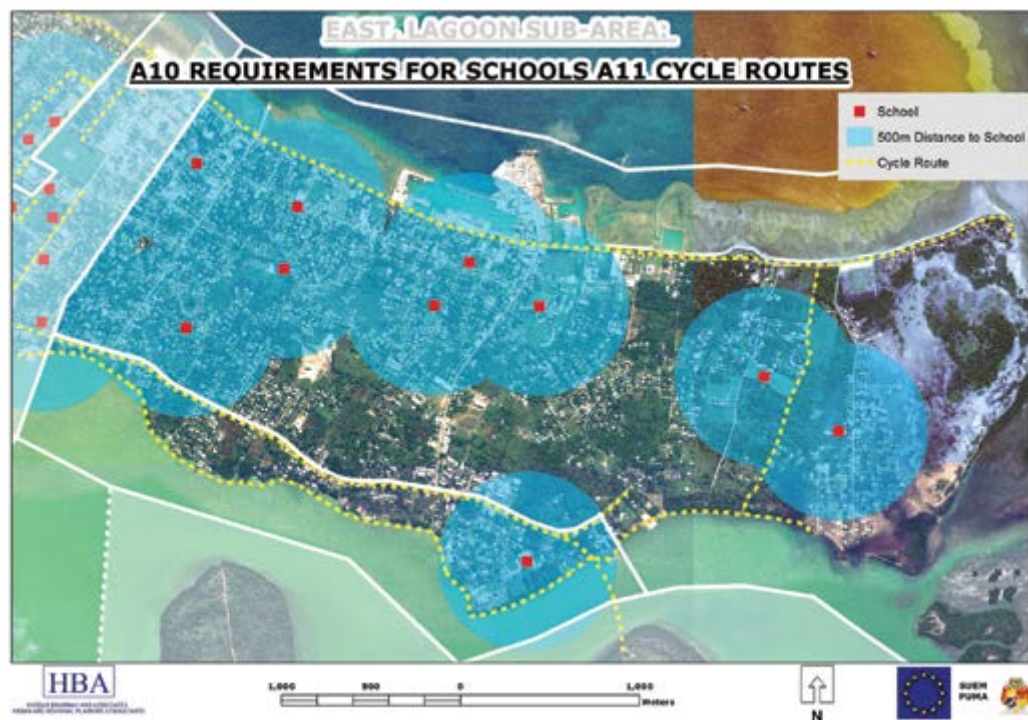


Figure 10: Nuku'alofa Action Plan - area sub-centres and appropriate open space

Figure 11: Nuku'alofa Action Plan Requirements for Schools and Cycle Routes



Transportation Network

A new road hierarchy for the GUA was established. In consultation with the National Emergency and Relief agencies, maps showing key escape routes and safety locations under disaster conditions were prepared. The new road hierarchy makes fundamental changes to the existing traditional road system serving Nuku'alofa to meet the changing needs of the urban area whilst providing for disaster evacuation requirements.

Structure Action Plans

Action Plans for each of the five sub-areas were prepared based on the detailed guidelines for these areas, and involving local comment and evaluation. Key actions were identified by sub-area, based on the strategies described in section Strategic/Structure Planning Framework. Typical Actions [A1-A11] for Sub-Area 1 – Central are listed at the end.¹

The location and proposed design of all actions were mapped to show the strategic combination of particular recommendations. Over the initial 5-year period, Action Plans will be revised to reflect the changing needs and perceptions of the community and the planning agency. Beyond that period, it was proposed that further 5-year agendas would be developed throughout the 20-year cycle of the Structure Plan.

STRUCTURE PLANNING GUIDELINES

Structure Plans are guided by both agreed principles and control regulations:

- Guidelines containing the principles of development to support plan formulation and implementation drafted for the GUA and more detailed guidelines prepared for the urban sub-areas; and
- Detailed development control regulations prepared for the enforcement of all development and change identified in the structure plans

Greater urban area guidelines

From the *Strategy Statements*, recommendations were formulated for a series of planning guidelines for the GUA. They were intended to set the general principles for later planning in Nuku'alofa

and to assist in the coordination of development activity. Fourteen guidelines were outlined to shape the structure planning for the GUA. They include a Desired Future Statement [G1] that is part of setting both GUA and sub-area guidelines for formulating a broad directive for the growth and character of the area.

- *Public Environment*
A broad directive for the growth and character of the Sub-Area [Desired Future Statement]
- *Micro-Climate*
Location of development in relation to climatic conditions and the provision of landscaping
- *Conservation of Local Heritage*
Retaining all sound buildings and environments of cultural significance and providing controls for the adding of new structures
- *Urban Design and Character*
Maintaining good design of buildings in line with local needs and character and supporting new and higher standards of health and safety.
- *Desired and Promoted Uses*
Alternative land uses that may be compatible with existing uses in the sub-area in the promotion of place zoning
- *Expansion of Existing Uses*
Support for the expansion of a desirable existing land use within a sub-area
- *Change of Existing Use*
Permitting the change of existing land use to a more desirable type
- *Privacy*
Control and minimisation of intrusion of development on adjacent properties
- *Access and Safety*
Pedestrian and vehicular access to a site to be safe and convenient and heavy vehicles excluded from local streets

The following are the ‘*Desired Future Statements*’ for the five sub-areas:

Sub-Area 1 – Central

Central Sub-Area should be substantially improved as the focus of commercial and cultural life in Nuku'alofa. A revised perimeter should be defined to extend the present Central Area to provide urban related amenities that connect to upgraded ocean waterfront facilities. The coastal reef should be retained and protected from development. Selected public areas should be given an improved significance as urban foci and protected

and conserved. Open spaces and significant shade trees should be preserved and upgraded to provide quality public amenities, with the east-west waterfront axis developed to offer attractive natural opportunities for both tourists and the local population. The proposed relocation of Government ministries from the Central Sub-Area to the new east-west Primary Distributor requires significant levels of detail planning.

Sub-Area 2 – West

The extensive natural environments of the West Sub-Area need be protected from further unsustainable development. Such areas, in the western sections of Sopu, are to be established as ecological reserves and maintained for public enjoyment. Plantation lands (for traditional fruit and

vegetables) should be held in reserve pending the development of sustainable plans for their growth. The coastal reef should be similarly protected from damage and misuse. Ocean waterfront areas should be substantially improved as passive tourism and recreational facilities.

Sub-Area 3 – South

The South Sub-Area is bounded by Fanga'uta Lagoon to the east and plantations to the west and will develop its potential as a principally residential location. Opportunity for the establishment of fresh water conditions in the lagoon will provide for its improvement as a recreational facility and for the public use of the lagoon waterfront. Plantations provide a

significant buffer to urban growth and these areas will be selectively developed over time. The reduction of inter-island traffic along Taufa'afau and Vaha'akolo roads will enable both of these arteries to develop as well-landscaped approaches to the central area and allow the Sub-Area to become safer, with increased pedestrian and bicycle use.

Sub-Area 4 – East

The extensive natural environments of the East Sub-Area should be protected from further unsustainable development and the present ownership of subdivisions in these areas rescinded. These areas and designated areas of drainage retention are to be established as ecological reserves and maintained for public en-

joyment. These areas include the existing locations of Popua and Nukunuku Island. The coastal reef shall be similarly protected from damage and misuse. The waterfront areas will be substantially improved as passive tourism and recreational facilities as part of an integrated ocean waterfront.

Sub-Area 5 – Lagoon

Lagoon Sub-Area has been established to make provision for the requirements of the new transportation hierarchy involving construction of the east-west Primary Distributor that will effectively isolate the lagoon waterfront from the East Sub-Area communities. Lagoon Sub-Area will be developed as a waterfront area providing for tourism, recreational and further residen-

tial uses with improved social and commercial facilities while reclaiming public access to the lagoon waterfront. Proposals for the relocation of Government ministries to the Primary Distributor will require the detailed planning of waterfront areas in the Sub-Area to accommodate these functions and the District Distributor connection to the central area.

- **Public Parking of Vehicles**
Public parking of cars to be allowed only where this is compatible with the stated development of the sub-area
- **Building Height and Siting**
Building heights to support the scale and character of a sub-area and development sited to suit the character of the site
- **Use of Building Materials**
Maintain local visual harmony of materials
- **Energy Efficiency**
Energy efficiency of buildings to be demonstrated
- **Pollution Control**
Control to be applied over all pollution types, including noise impact on adjacent properties

Local Guidelines for Urban Sub-Areas

Guidelines and 'desired futures' for the five sub-areas apply GUA Guidelines more specifically. As with all such prescriptive documents, they should be continuously revised as the needs of urban conditions evolve. The concerns relating to present traditional ownership patterns are critical to implementing effective planning guidelines. In the next stage of structure planning, the questions raised by the traditional methods of land administration need to be resolved, and the possibility of rescinding part of the present sub-division ownership process seriously considered by the communities themselves.

Development control regulations

This element of the study involved the formulation of development control guidelines and preparation of a manual of effective control mechanisms that will support the implementation of the Structure Plans. In Tonga, Development Control Regulations are legal instruments which can be enforced by legal process under the provisions of the National Spatial Planning and Management Act 2012.

Figure 12: Nuku'alofa sub-area waterfront tourism facilities



PILOT ACTIONS

From the planning activities carried out for the Nuku'alofa Structure Plan over the 20 month period of the study, three key issues highlight the urban area's future growth and development.

Geophysical constraints, land administration and underlying economic opportunities have been shown to be pivotal issues for Nuku'alofa's urban development. Accordingly, the following three projects have been identified for preliminary action within the strategic and structure planning framework.

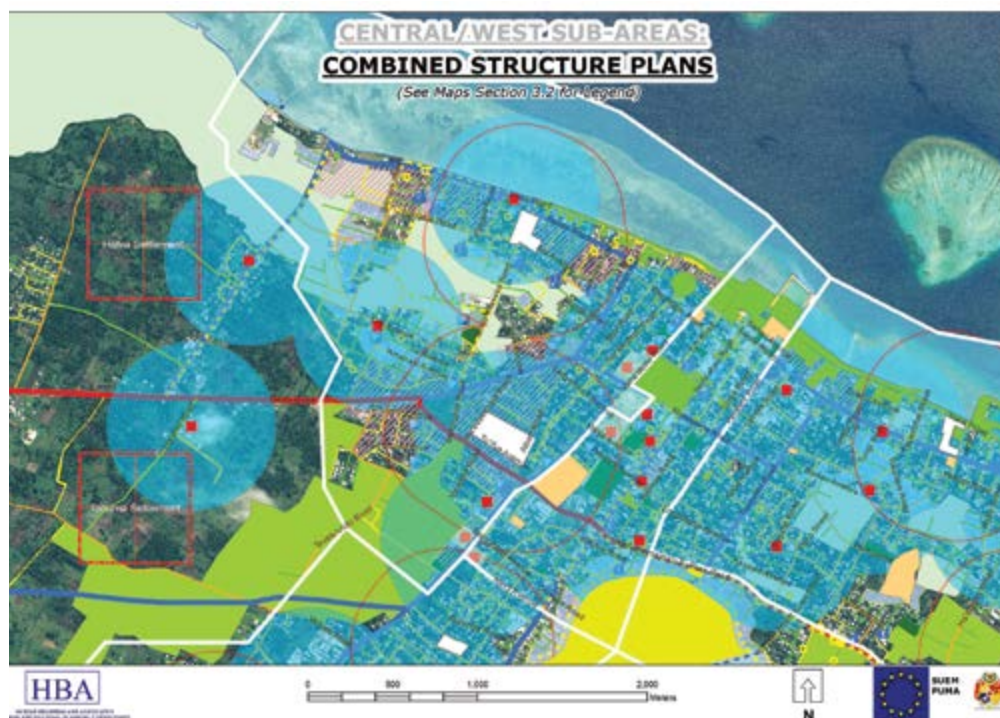
Central area/tourism precinct

The economic opportunities to build on the present limited capacities for tourism in Nuku'alofa depend to a considerable degree on achieving physical improvements on the waterfront and in the central area. These require appropriate planning of the waterfront along the north-

ern coastline, and of its linkages to the small and compact CBD and key amenities to the south. It also depends critically on the restructuring of the urban road hierarchy, involving better linkages beyond the lagoon to the southern and eastern beaches. Good access to the airport is vital given that most tourism activity in Tonga will continue to be focussed on other islands.

The dedication of tourism related activities along the northern coastline and a new road system servicing these areas will enable key amenities [hotels, conference facilities, restaurants, local markets, recreational areas and established ferry and sailing locations] to reinforce the tourism potential in Nuku'alofa. It is proposed that the new wharf, providing for cruise ships, and key places of historical and cultural interest be linked along the restructured road system with government and unrelated non-tourism facilities relocated from the northern coast to the proposed New Government Enclave.

Figure 13: Nuku'alofa sub-areas combined Structure Plans 1



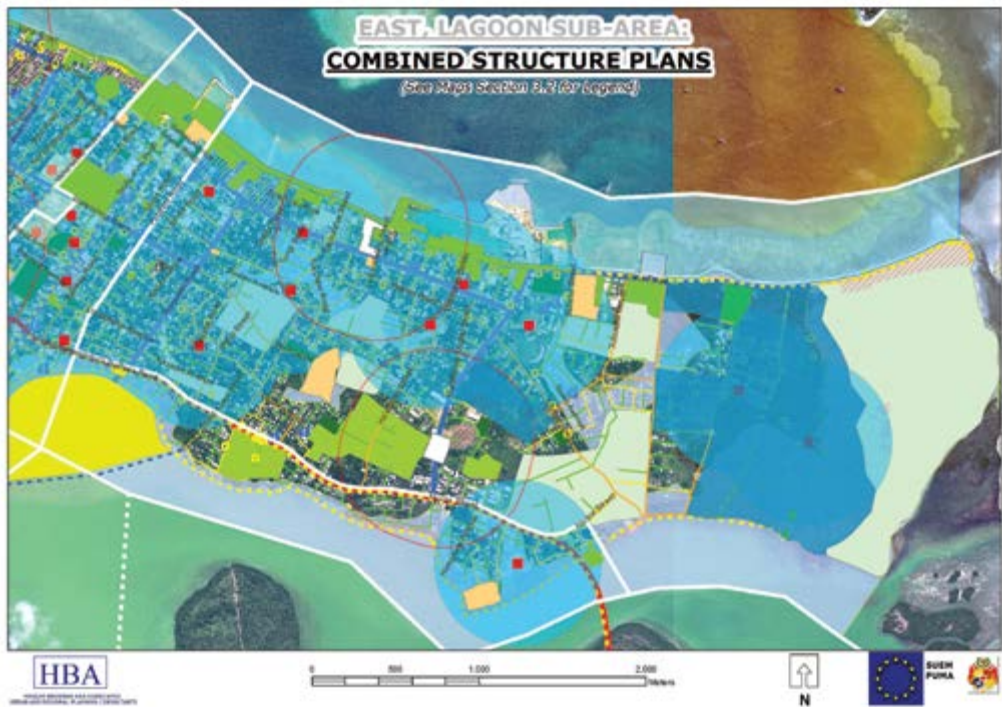


Figure 14: Nuku'alofa sub-areas combined Structure Plans 2

Figure 15: Nuku'alofa sub-areas combined Structure Plans 3



All new construction will be elevated above flood and surge levels; and pedestrian movement between the waterfront and the CBD will be further enhanced to improve the waterfront for tourism activities.

New Government Enclave

Many government offices and installations in Nuku'alofa are located close to the northern coastline and are at risk to storm surge, flooding and potential tsunamis. In response to these risks, a new government enclave has been proposed along the east-west distributor road to allow key government functions to be located away from vulnerable coastal locations. Later stages of the enclave could be expanded to the northern edge of the lagoon and further growth considered within reclaimed areas of the lagoon itself, together with compatible sports and recreation facilities.

A causeway or bridge across the lagoon has been proposed as a key element of the new road hierarchy in order to provide better evacuation routes serving the eastern areas. Improved road and street-scape design will be necessary components in this program.

New housing neighbourhoods

Settlement programs are high priorities for both the economy and health of the community. Innovative uses of undeveloped traditionally-owned land can be effective for example, through applying simple and inexpensive approaches to developmental controls and constraints which face a large section of the Nuku'alofa population.

Much of the 8.5 hectares of housing in Nuku'alofa is currently under threat from storms and flood inundation. The proposal for New Housing Neighbourhoods was intended to provide alternative locations for sustainable housing for households currently affected by the extreme climatic and environmental constraints, and for natural population increase.

Within this element of the program, substantial areas of existing plantation land would be retained, providing for crop and agricultural production for land owners as well as additional agricultural land for residents of the new settlement. In addition, some plantation lands would be allocated to new neighbourhood development.

NEXT STEPS

The urban planning framework, guidelines and procedure are established and the majority of PUMA staff are familiar with their use and are capable of applying them directly. A comprehensive method of GIS mapping has been set up for implementation of an integrated GIS database as the operational tool for PUMA monitoring and recording of planning activities. With traditional land law providing for controlled land distribution, the systems of tax and town allotments has been digitised as a means of planning reference. GIS Mapping continues to be developed as the project moves to a phase of in-house implementation and provides the necessary comprehensive digital framework for effective planning operations.

The project has been carried out within two main operational sectors (urban planning and environment/infrastructure) that contribute as part of an integrated approach to planning for Nuku'alofa. This is reflected in a capacity building program through a period of finalization of the outputs, training and appropriation of the tools/outputs of the program by the beneficiaries.

Counterpart staff will be required to assume their operational roles in the near future. Their ability to succeed in this will depend partly on the level of confidence which they bring to the task and partly on having in place leaders or external advisers with sufficient experience to guide and support a team during the transitional phase. ■

Endnote**1 Typical Actions for Sub-Area 1 – Central:***Environment and Land Management Objective*

- S1 Urban Environment Strategy
 - A1 Establish a Marine Reserve
- S2 Historical Significance Strategy
 - A2 Conserve Significant Sites and Trees
- S3 Effective Land Delivery Strategy
 - A3 Relocate Incompatible Land Uses
- S4 New Sites Strategy
 - A4 Define Limits of New Construction
 - A5 Develop Waterfront Facilities

Transportation and Access Objective

- S5 Traffic Movement Strategy
 - A6 Design Local Road Network
- S6 Parking Strategy
 - A7 Provide Appropriate Parking Spaces

New Infrastructure Objective

- S7 Drainage Strategy
 - S8 Sanitation and Water Strategy
 - S9 Solid Waste Strategy
 - S10 Electricity Services Strategy
- [Details of these strategies included in Environment/Civil Engineering component and specific reports]

Amenities and Community Development Objective

- S11 Community Improvement Strategy
 - A8 Establish Community Centres
 - A9 Locate Appropriate Open Space
- S12 Public Facility Design Strategy
 - A10 Promote Improved Standards of Urban Design
- S13 Pedestrian/Cycle Network Strategy
 - A11 Provide Pedestrian/Cycle Routes

[Area specific actions are identified for all five sub-areas]

URBAN AND SOCIAL PLANNING THROUGH PUBLIC-PRIVATE PARTNERSHIP: THE CASE OF THE BONNYRIGG LIVING COMMUNITIES PROJECT, SYDNEY AUSTRALIA

Dallas Rogers

URBAN AND SOCIAL PLANNING IN AUSTRALIA: THE DEMISE OF PUBLIC HOUSING

In December 2004 the New South Wales (NSW) state Housing Minister announced the redevelopment of the 81-hectare Bonnyrigg public housing estate in Sydney Australia. The Bonnyrigg Living Communities Project (BLCP) is the first NSW public housing estate redevelopment by public-private partnership. The project involves a 30-year contract between the NSW Government and a private-sector consortium company. The BLCP is a pathfinder project that is exploring new urban and social planning models, social mix policies, a new asset management program and dwelling maintenance practices contracted out to the private-sector by the NSW Government. On the eve of the 10-year anniversary of the BLCP this article explores some of the challenges of using public-private partnerships to manage large-scale social, urban and economic change.

In Australia the constitutional power to restructure Australian cities resides with the states and territories, and subsequently (through these statutory bodies) with the local authorities at the third level of government. As a matter of historic interest, local government is not referred to in the constitution of the Australian Commonwealth, nor does the Federal Government have any direct political oversight over planning in NSW. However, the Federal Government has historically influenced the strategic planning of public housing in NSW through its public housing operational budgets and project funding for major housing and public housing estate redevelopment programs.

Over the last ten years in NSW the responsibility for strategic and regulatory planning has become increasingly more fluid and highly politicized as the Federal, NSW State, and local governments' vie for a greater share in the planning governance pie. Planners and bureaucrats in NSW have been engaged in an increasingly politicized discussion about the scale (federal-state-local) at which strategic and regulatory planning should be tasked. A form of "new regionalism"³, which is characteristic of the government's intervention in urban policy at the scale of metropolitan regions rather than at local divisions, is driving a reworking of the political level at which citizens are made governable and major infrastructure is delivered through planning policy. Increasingly these planning frameworks involve the private-sector as the provider and manager of infrastructure and services, which were formerly provided by the state. Within the NSW planning system there is provision to designate certain planning propos-



Newleaf Bonnyrigg is a multi-award winning residential renewal project that has paved the way for a new approach to the renewal of social housing through public-private partnerships between Housing NSW and the private sector.

Bonnyrigg map and Newleaf dwellings¹

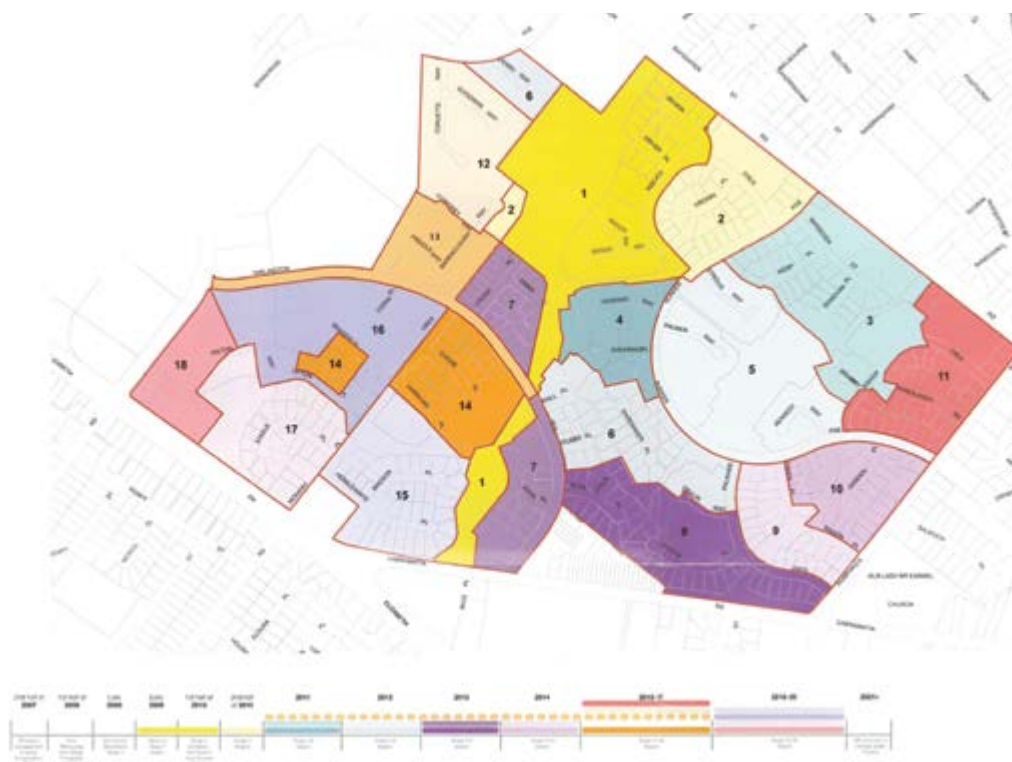


Figure 1: Bonnyrigg Map and project timeline ²

als as being “state significant”. In such cases the regulatory planning approval powers of local-level councils and planning professionals may not apply. Instead, planning matters assessed as being “state significant” are determined by the state-level government department or even by the planning Minister.⁴

In 2004 a suite of urban and social planning reforms was consolidated on the 81 hectare Bonnyrigg public housing estate in southwest Sydney. These included a decline in the Federal government’s funding for public housing, a focus on metropolitan planning, and an increasing political interest in the privatization of public infrastructure and social service provision. Also evident was a policy framework that shifted regulatory planning powers from local government authorities towards the state government planning departments. At that time the operating budgets for public housing primarily came from the Federal

Government through a multilateral agreement between the Federal and NSW State Governments which was supplemented with circulating funds from the existing asset base of the NSW state housing authority. Another relevant factor here was that while significant investment in public housing in the post-war period had created major social and economic benefits throughout Australia, by 2004 the long-term trend of tightening public housing allocation policies meant that only the ‘most disadvantaged’ within society were being housed on large public housing estates.

Under these changing social and political conditions the NSW state housing authority faced increasing maintenance backlogs, a deteriorating housing stock and reductions in circulating budgets. Within policy and media texts – and also in the public mind - large tracts of public housing became increasingly associated with unemployment, civil disobedience and crime. By the early

2000s public housing allocation policies were so tightly targeted that public housing estates were being labeled as 'ghettos' in the media; an urban space for low-income or unemployed persons, single-parent families and people with disabilities or other complex needs. At the same time the Federal Government was moving away from providing direct assistance to the NSW state housing authorities to fund market-based rental assistance and other affordable housing programs. As the Federal Government funding withdrew (in real terms) the NSW state housing authority followed the adjoining Victorian state government by investigating private-sector venture options, including the identification of public housing estates with private-sector 'commercial value'.

Discourses of residualisation (housing or a housing area that is thought to be undesirable) and concentrated disadvantage were agglomerating around public housing estates in Australia. Eventually these shifts in public housing policy and long-term strategic planning were made manifest in public housing estate redevelopment projects in South Australia (Mitchell Park, Hillcrest and The Parks), Victoria (Kensington) and New South Wales (Minto). Although these projects were different in urban and social planning scope and delivery, they broadly involved changes in public housing tenure profiles through the sale of new or refurbished housing stock in the private market (social mix), with many involving a degree of *ad hoc* tenant involvement and a move toward the non-government housing sector to manage housing tenancies. The Minto project in NSW suffered from an ill-conceived planning phase combined with a premature and poorly timed Ministerial announcement. It stalled soon after announcement following fierce community resistance. Partly as a result of this debacle the significant social, urban and economic planning reforms for public housing estates were finally consolidated with the announcement of the Bonnyrigg Living Communities project - NSW's first public housing estate redevelopment by public-private partnership.

THE BONNYRIGG ESTATE

Bonnyrigg is a suburb within the highly cosmopolitan Fairfield Local Government Area (LGA) located 30km southwest of Sydney. The Fairfield LGA consists of 27 suburbs and in 2001 the LGA had one of the highest proportions of overseas-born residents of any LGA in Australia. In the same year the Bonnyrigg public housing estate (Estate) had a population of around 3,300 people. The Estate site included 927 dwellings comprised of 812 public housing, 13 indigenous housing, three community housing and 99 privately owned dwellings. The private dwellings were predominantly located in a small enclave in the southwest corner of the Estate. Between 1981 and 2001 the Estate served as an entry point for refugees and other migrants. By the mid-1990s it had a significant proportion of public housing tenants from non-English-speaking backgrounds. In 2001 over 60% of the Estate's population were born overseas. Therefore cultural and linguistic diversity was a defining feature of the Estate in the lead up to the redevelopment announcement. The most common languages spoken in 2004 by public housing tenants were English (30.3%), Vietnamese (26.4%), Khmer (7.0%), Arabic (6.4%), Chinese (5.6%), and Spanish (4%).

Regionally the Estate is well located within the key growth area of Sydney, often defined as the geographical space bounded by three major motorways (designated as the M7 Westlink, the M5 Motorway and the M2 Motorway loop). The Estate is well connected to two of the five key 'Growth Cities' identified in NSW State Government's strategic planning document for metropolitan Sydney.⁵ Bonnyrigg is no more than 20 km to each of the two key 'Growth Cities' and no more than 10 km to two proposed 'Major Centers'. At the local level the Estate is surrounded by the residential suburbs of St Johns Park (north-east of the Estate), Mount Pritchard (south-east and south of the Estate) and Bonnyrigg Heights (south-west of the Estate). Prior to the BLCP announcement all of these suburbs had experienced significant median house prices increases since 1998. The Bonnyrigg Town Centre, adjacent to the Estate, is well connected to other regional centers by way of two motorways and a dedicated public bus network linking Bonnyrigg to two important 'Growth

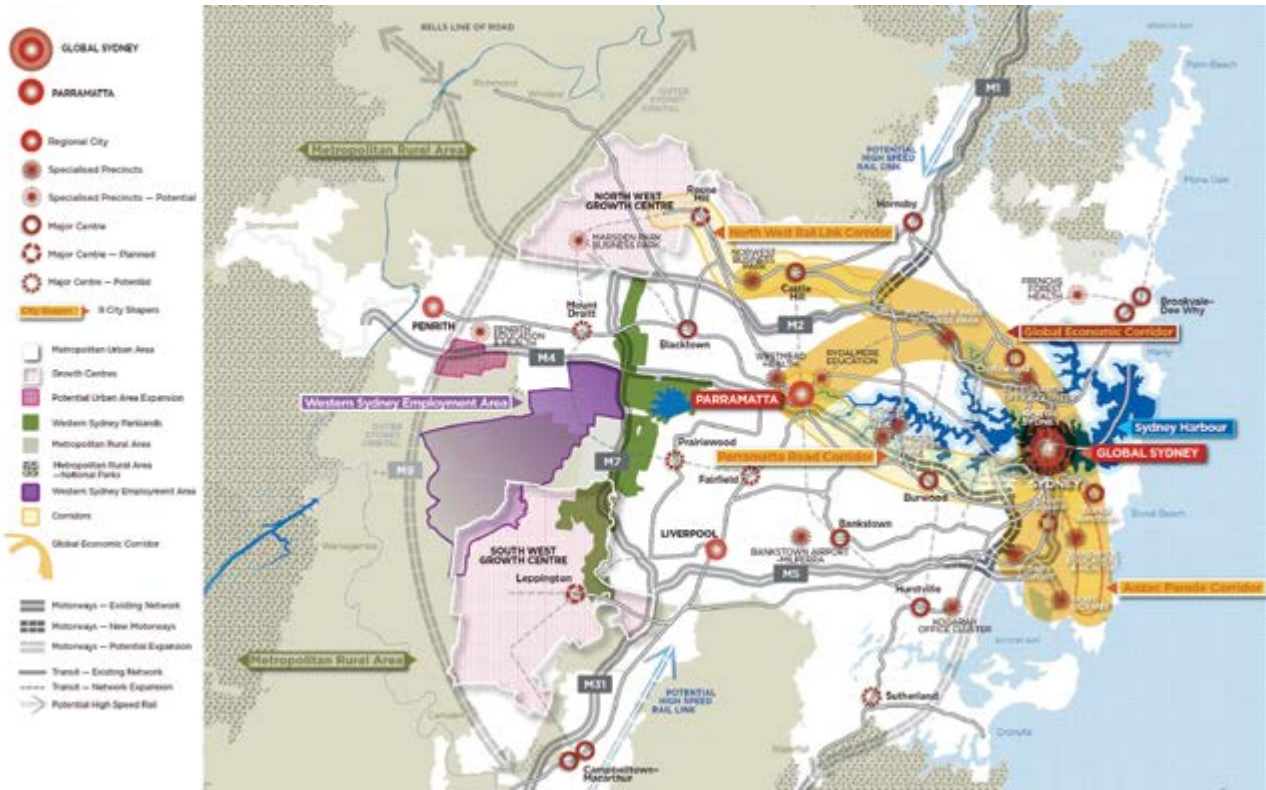


Figure 2: Sydney Metropolitan Map⁶

Cities; Liverpool (7 km from Bonnyrigg) and Parramatta (17 km from Bonnyrigg). Both of these regional 'cities' are set to become major transport hubs and employment centers over the next 25 years under the Sydney Metropolitan Plan

The Estate was originally designed on 'Radburn' urban design principles and was poorly maintained by the state housing authority throughout the decade preceding the announcement of the BLCP. Bolstered by early theorizing that would eventually become New Urbanism, the Radburn urban design principles were used to design a selection of precincts across the USA, Canada and Australia between 1960 and 1990. One particular design feature of Radburn (colloquially termed *front-to-back housing*) is almost synonymous with the term Radburn in Australia. As the name suggests, the *front-to-back housing* component of Radburn design orientates the fronts of the houses on to a communal open space, whilst at

the 'rear', houses back on to the street.

In Bonnyrigg this design feature also consisted of "a series of open space systems connected via a series of walkways and cul-de-sacs"⁷ with high fences demarcating pedestrian thoroughfares. Throughout the mid to late 1990s the state housing authority implemented a 'Neighbourhood Improvement Program' to 'deRadburnise' the estate. This physical upgrade program largely involved changing the Radburn urban design layout of the Estate by lowering fences and enclosing specific communal spaces. Ten years later, Bonnyrigg is seen as being a pre-eminent example of the 'failure' of certain Radburn urban design principles as they were commonly applied in several public housing estates throughout Australia.



Quick facts about Bonnyrigg development

| | |
|--------------------------------------|---------------------------|
| Original Population | 2900 |
| Population of completed scheme | 6850 |
| Original number of dwellings | 933 |
| Dwelling numbers of completed scheme | 2332 |
| Original mix of dwellings | 90% public · 10 % private |
| Mix of dwellings on completed scheme | 30% public · 70% private |
| Planning approval | January 2009 |
| Stage 1 construction starts | April 2009 |
| Expected completion of stage 1 | September 2010 |
| Expected completion of scheme | c. July 2021 |

Figure 3: Quick facts about Bonnyrigg⁸

THE BONNYRIGG LIVING COMMUNITIES PROJECT

In December 2004 the NSW Housing Minister announced the A\$733 million redevelopment of the 81-hectare Bonnyrigg public housing estate. The public–private partnership contract was to be managed under a performance-based fee structure covering the delivery of physical infrastructure by a property developer as well as a suite of social objectives including tenancy management, ‘community building’, ‘community consultation’ and an array of communication functions. The state housing authority defined the project as an ‘integrated renewal’ combining social, urban and economic planning covering ‘people, place and partnerships’⁹.

In effect, the BLCP is a single-contract arrangement between the NSW Government and a private-sector consortium company. The consor-

tium company is jointly owned by two of the four consortium ‘partners’: the property developer and the financial institution. The other two consortium members are a non-government housing manager and a property maintenance company. The BLCP Masterplan¹⁰, prepared by a large urban planning consultancy company in Sydney on behalf of the private-sector consortium company, outlines each contractor’s responsibility under the BLCP contract. The property developer is responsible for planning, design and physical construction and overall project management. The financial institution is responsible for raising the finance needed to carry out the physical redevelopment and the social renewal program. The non-government housing manager is responsible for tenancy management of social housing. The property maintenance company is responsible for facilities maintenance of all social housing and public areas. An overview of the services to be

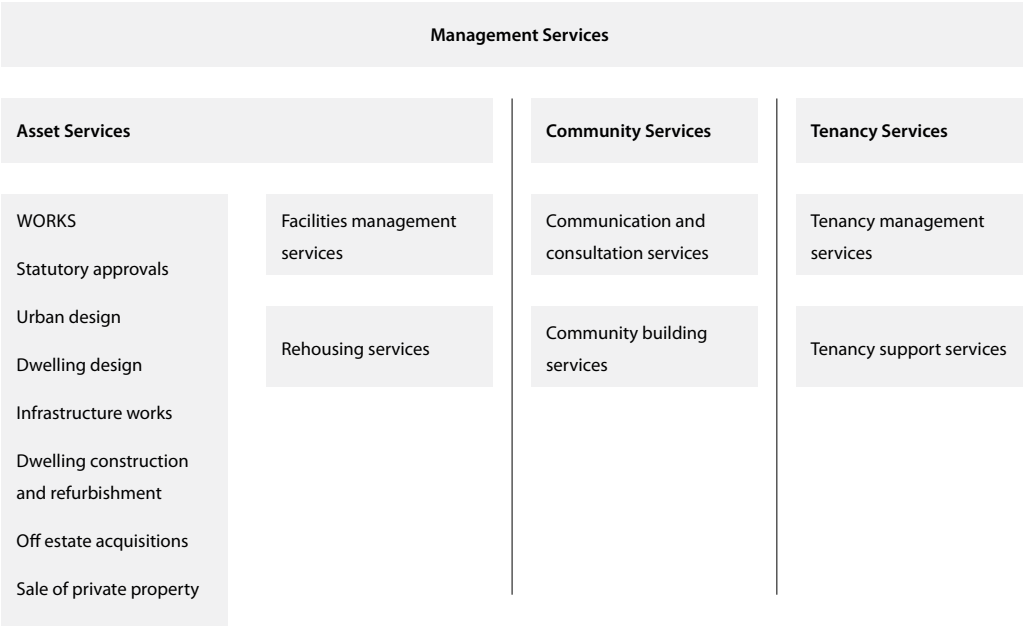


Figure 4: Contracted services provided by the private-sector consortium¹¹

provided by the private-sector contractor is outlined in Figure 4.

There are three phases to the BLCP:

Phase 1:

The period preceding the BLCP announcement (covering the design of the public-private partnership model and private-sector contracts by the NSW Government until December 2004).

Phase 2:

The period from the BLCP announcement to the signing of the BLCP contract deeds by the private-sector contractor (December 2004 to December 2006).

Phase 3:

The period from the signing of the BLCP contract deeds by the private-sector contractor for a 30-year contract period (from December 2006).

Over the contract term the net housing stock across the estate was to be increased from about 950 to over 2,330 dwellings. In pursuit of policy

objectives to deconcentrate public housing and create a ‘social mix’ the ratio of public to privately owned housing stock on the Estate was to be reduced from the 2004 ratio of about 90% public and 10% private to about 30% public and 70% private. It was proposed that increasing housing density across the site would allow the state housing authority to reduce the percentage of publicly owned dwellings across the Estate relative to private housing, over the contract term, while simultaneously renewing their existing public housing stock with the construction of 833 new public dwellings. The private-sector consortium company would sell the additional private housing stock on the open housing market to part finance the BLCP.

Social mix policies that focus on engineering specific public/private housing tenure profiles have been heavily critiqued¹². One of the central themes within social mix policies that focus on public/private housing tenure is an assumption that if public housing tenants were neighbours with private homeowners a range of social benefits and aspirational subjectivities would accrue for the public housing tenants. These types of determinist social mix policies – seen as a means of



Figure 5: Stage 1 Plan for the BLCP¹⁴

bringing physical planning (built form changes) and social planning (tenancy profile changes) together - have had unanticipated results and consequences for both policy-making and urban and social planning in NSW.

In the BLCP case the issue of private landlords purchasing the private housing stock and renting these dwellings on the open rental market to low-income private renters presents a problem for realizing the assumed social benefits of housing tenure (social) mix policies. In Sydney, high property prices and associated rental costs mean that housing stress for low-income citizens is prominent in the private rental market. Equally, the need to increase housing densities and achieve the target of a 30% public housing/ 70% private housing profile was an integral part of the financing model for the BLCP. Indeed, the project's economic viability was largely dependent on the sale of private housing stock on the open housing market.

Notwithstanding these concerns, the housing density increases and the retention of the same number of public housing stock meant that no public housing tenant was required to permanently move off the Estate as a result of the re-

development. This contrasts with other large-scale estate redevelopments in Western Sydney (i.e. Minto) where the social mix policies could not be deployed with the same housing density increases due to lower land and property values outside the inner Metropolitan area. Some projects required the forced relocation of tenants from their estates, and in the Minto case the forced relocation of tenants had significant social implications for individuals and families¹³.

PRIVATE-SECTOR PROVISION OF PHYSICAL INFRASTRUCTURE IN BONNYRIGG

At Bonnyrigg the public-private partnership contract provides that the private-sector developer will complete the master-planning and will undertake the physical redevelopment of the Estate – including all physical infrastructure. This includes the design and construction of new public and private dwellings, large-scale civil works such as drainage and the provision of services, the design and provision of open spaces and roads, and the design and construction of community facilities including a neighbourhood center. Construction

There will be a mix of home types throughout the new Bonnyrigg

This drawing shows the main housing types in small areas.



Two Storey Detached Houses

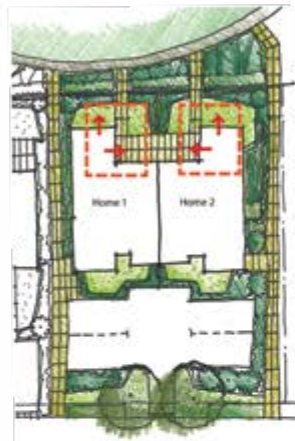
This drawing shows a two storey detached house.



Figure 6: Housing types in Bonnyrigg¹⁶

Townhouses and Attached Homes (in groups of 4,6,8)

This drawing shows 4 attached homes: 2 on the ground floor with yards, and 2 on the first floor with large balconies.



Ground Floor



First Floor

Apartments with Lifts

This drawing shows a 4 storey apartment building.



Ground Floor



1st - 3rd Floor

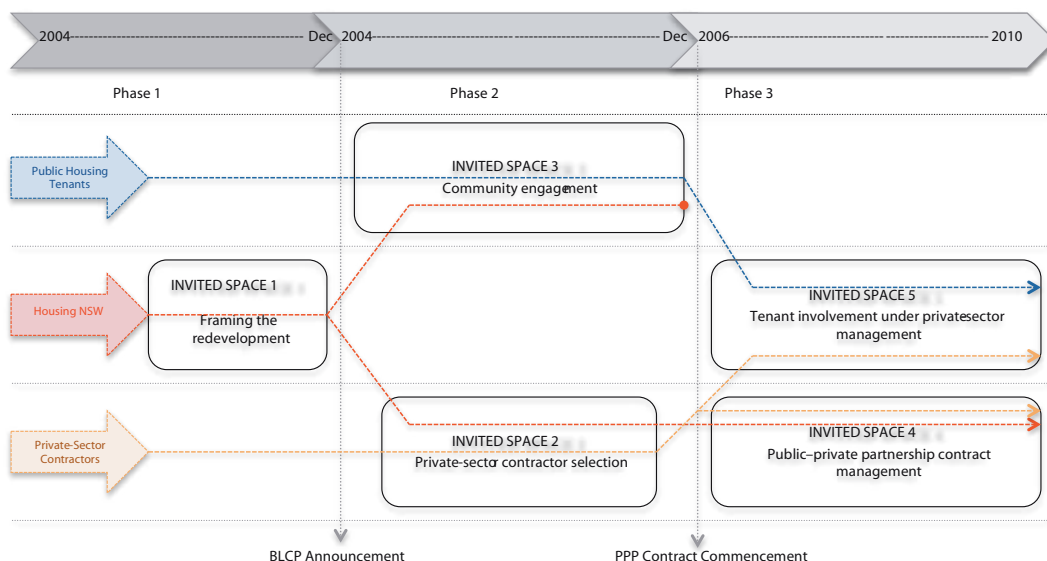


Figure 7: The three phases of the BLCP: How public housing tenants and the private-sector engaged with the state housing authority¹⁷

is being staged (within Phase 3 of the BLCP) over 10–15 years.

The public-private partnership design brief for the physical works required that when viewed from the street there be no discernible design difference between the new dwellings to be placed on the open housing market for private sale and the dwellings to be retained as publicly owned housing. This design intention was aimed, in part, at reducing the stigma associated with living in public housing by mitigating those visual clues within the urban landscape, which could be used to identify the public housing stock. It has become clear, however, that physical design features do not address the well-reported social drivers of public housing stigma¹⁵.

The property developer was also required to deliver a mixture of housing types, including detached homes, group attached homes and higher-density apartment buildings near the Town Centre (see Figures 5 and 6).

SOCIAL PLANNING IN BONNYRIGG

Social planning policy for the public-private partnership contract required the public housing tenancies to be transferred to a non-government housing manager, under contract to the private-sector partner, for the 30-year period. During the selection of the private-sector contractor the state housing authority and the local government authority also implemented a 'community engagement' program to assist the state housing authority with planning and design matters during the public-private partnership bidding phase (see Figure 7).

The state housing authority has claimed that its partnership with the local government authority led to significant tenant involvement in the planning of the BLCP through their co-managed 'community engagement' program¹⁸. The author has reviewed the 'community engagement' program within Phases 1 and 2 in detail elsewhere and

questions the state housing authority's reported levels of tenant participation in the BLCP¹⁹. It is significant that tenants were not involved in the framing of the BLCP. They were not part of the private partner selection process, nor are they currently part of the PPP management process as shown in Figure 7. Notwithstanding these important considerations and broader questions of state devolution of housing protection for low-income citizens,²⁰ the co-managed 'community engagement' program had some unforeseen and possibly progressive participatory planning outcomes.

The state housing authority and the local government authority worked together with bilingual community educators and planning and housing academics to give local residents a basic working knowledge of planning. The 'capacity building' sessions included topics such as 'how to read a plan' or 'understanding shadow diagrams'. The state housing authority, the local government authority and the private-sector developer supposed that tenants would use this information as they took part in the 'community consultation' processes being pursued by the government and the private-sector in Bonnyrigg. However, tenants took these skills directly to the regulatory planning approvals framework of the local government authority that was guiding the BLCP.

The NSW State Government had deemed the BLCP to be a 'state significant' project and accordingly had called in the approval powers to the NSW State planning department. In an interesting regulatory planning power play – conducted under the guise of 'state significant' regulatory planning in NSW – the NSW State planning department then delegated the power to approve the 'concept plan' and 'development applications' back to the local government authority. At this point the local government authority had to relinquish their role in the co-management of the 'community engagement' program to enable the impartiality that was required for their development application approvals role. As the BLCP progressed into Phase 3 the private-sector consortium company submitted their Concept Plan and Stage 1 development applications to the local government authority (see Figure 5). The company then invited local residents to a private-sector managed 'community consultation' on the

plans in Bonnyrigg. By this time the local residents had mobilized their new planning knowledge and directed it towards the local government's formal approvals process within the authority's planning bureaucracy.

In 2008 the local government authority received 43 written submissions signed by a total of 58 citizens in three community languages. These submissions included comments by individuals, local property owners, local businesses, public housing tenant representative bodies, non-government organizations and local interest groups. The general public submissions written in Vietnamese and Spanish represent the first occasion on which the local government authority received written submissions in languages other than English.

The private-sector consortium company had been contracted to meet a range of social planning objectives including: consulting public housing tenants and involving them in decision-making processes; building 'social cohesion'; minimizing 'disruptions' to the lives of public and private residents on the Estate; and managing the public housing tenancies for the 30-year contract term through a non-government housing manager. The private-sector consortium company understood 'community consultation' to mean a series of events that they would undertake in Bonnyrigg, and that would be designed by their internal team of planning professionals. They did not expect or plan for the high level of public housing tenant proficiency in planning knowledge and local planning processes. When this local knowledge was directed toward the local council's public consultations on the concept plan and development applications the private-sector consortium company reported that significant local input in this planning process was an impediment to moving forward with the project. It is true that local community input introduced additional planning revisions for the private-sector consortium company. However, planning approval was eventually achieved that reflected a greater level of local community input. The rehousing of public housing tenants commenced, construction began, and private houses went on sale. But all was not well in Bonnyrigg.

CONCLUDING COMMENTS: PUBLIC-PRIVATE PARTNERSHIPS, VOLATILE MARKETS AND RECEIVERSHIPS

During the mid-2000s public–private partnerships were well established in New South Wales. In 2002 a private-sector consortium company was selected to manage Sydney's Cross City Tunnel public–private partnership project and construction was under way by 2003. By mid-2004 work had also begun on another freeway tunnel project, the Lane Cove Tunnel, in Sydney's north. By late 2006 the private-sector developer managing the Cross City Tunnel was in receivership. The failure of this project sparked a parliamentary inquiry focused on the outstanding debt (reported to be A\$560 million) and questioned the role of government in both the collapse of the company and a possible bailout. By January 2010 the private-sector developer managing the Lane Cove Tunnel was in receivership (with an outstanding debt reported to be A\$1.14 billion). In February 2013 the private-sector property developer for the BLCP also went into receivership (with debts reported to be A\$200 million). The receiver stated that the future of the "[A]\$1.2 billion Bonnyrigg social housing project" could be "thrown into doubt"²¹.

In 2013 the NSW Treasurer Mike Baird argued that the "Global Financial Crisis" had significantly changed financial markets and the viability of public–private partnerships in NSW. Baird stated "We have seen a marked reduction in both the amount of the private capital available and the level of risk the private-sector is prepared to take."²² It would seem that the "Global Financial Crisis" of the late 2000s stimulated a downturn in Sydney's housing property market. That downturn is now thought to have contributed to the collapse of the property development company behind the BLCP. With the benefit of hindsight the BLCP public–private partnership was commissioned toward the end of a period of long-term housing price growth with record housing prices reached in some urban, peri-urban and regional locations across NSW.

As an afterword it can be reported that at the time of writing the private-sector consortium company undertaking the BLCP project had yet to sign up a new private-sector developer. The physical redevelopment of the Estate remains

less than half complete; and thus the future of this ambitious project is uncertain. The lessons of the BLCP for social, urban and economic planning include the need to seriously consider the short-termist and often utopian integration of these very different planning sectors and systems. The dystopian reality of many Sydney-based public–private partnerships provides a poignant reminder to the international community of planners about the relational dynamics and dilemmas that result from bringing together the public-, private- and non-government sectors in pursuit of 'the public good'. ■

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BEAUTIFUL CHINA: THE EXPERIENCE OF JIANGSU'S RURAL VILLAGE IMPROVEMENT PROGRAM

Fulong Wu · Lan Zhou



Figure 1: Improved Village Housing in Gaochun, Jiangsu. Photo by Fulong Wu

This chapter introduces the practice of rural village improvement in Jiangsu province of China. The program has profound implications for China's sustainable urbanization and the development of better urban and rural habitats. Jiangsu's village improvement program is an experiment to transform the built environment in rural areas to revitalise the rural society. It emphasises the protection of the rural environment, improving living conditions in the villages, and enhancement of rural landscapes. The experiment provides some valuable experience for China's rural modernisation and may be relevant to other developing countries, which are striving to improve the quality of life in their rural areas.

INTRODUCTION

In 2012, the Chinese new leadership announced a new vision to build 'beautiful China'. This is a profound shift from the previous development approach which mainly relied on industrialisation and export-oriented production to a new strategy to enhance the quality of life. According to this vision, Beautiful China will become a better-off society. To realise this vision, the division between urban and rural areas must be broken down. The strategy of urban-rural integration is thus a major measure to achieve harmonious development. In the last two decades of rapid industrial growth, China has paid a heavy environmental cost. Economic development is concentrated in the cities, while the rural areas still lack basic facilities and social services. The new roadmap of urbanisation must be people-oriented (Wu 2013).

In this article, we describe the experience of Jiangsu in the programme of village improvement to demonstrate the effort to achieve better rural-urban integration in China. Jiangsu province is located in the coastal region near Shanghai. Its total population in 2010 was 78.66 million, making it one of the most densely populated provinces. It is also one of the most developed regions in China, as its gross domestic product (GDP) ranked the second in China, and fourth in terms of per capita output. Since the economic reform, Jiangsu province has experienced two phases of urbanisation. The former phase (from 1979 to 2001) was driven by the development of township and village enterprises (TVEs) in southern Jiangsu, and consequently the development of small towns. The latter phase (from 2001 to the present) is characterised by the emergence of development zones and an export-oriented economy in the larger cities.

As a more developed province, Jiangsu has achieved significant economic growth. In 2011,

Jiangsu's per capita GDP reached 68,000 Yuan, equivalent to USD 10,800, and the urbanisation level is 61.9%, 10.6 percentage points higher than the national average. Its secondary and tertiary sectors together accounted for 93% of GDP, which means Jiangsu is essentially industrialised. To develop further, Jiangsu would need to find a new area of growth.

The program of rural village improvement has been adopted to promote rural-urban integration (Zhou et al. 2013). Rural villages in China refer to the settlements in the rural areas lived in by peasants. When villages grow into larger settlements, either with the total non-agricultural population of over 2,000 persons or where the percentage of the non-agricultural population in the total township population exceeds 10%, the status of town can be designated. These towns are also called 'designated towns'. In terms of population and development management, villages belong to the rural system, while towns are managed in a more regulated way. Rural villages are mostly occupied by farmers. Because rural villages are self-managed and often under-invested in public services, their living environment needs to be improved. In Jiangsu, over 55,000 rural villages have completed the improvement work, and approximately 10,000 rural villages are currently undergoing improvement. Such improvement has gradually enhanced the quality of public services in rural areas and has greatly benefited the rural farmers. This article will present Jiangsu's experience of village improvement and its significance in the advancement of 'Beautiful China'.

CHINA'S RURAL MODERNISATION

Chinese civilisation has a long and rich tradition of agricultural production and an established rural society. Fei Xiaotong, a renowned Chinese sociologist, described the foundations of Chinese society as "earth-bounded" (Fei 1992; Fei 2001). In the socialist period, the adoption of a household registration system divided the urban and rural areas, leading to urban-rural dualism. State-led industrialisation resulted in a bias towards major cities, while the development of rural areas was neglected. The rural area was largely left out as a self-contained society outside formal state welfare provision and public services.

Chinese rural areas have experienced profound changes since the economic reform in 1979. For Jiangsu, the most important change is rural industrialisation driven by the development of township and village enterprises (TVEs) (Fei 2001). In the 1980s and 1990s, TVEs enjoyed great success, especially in southern Jiangsu, creating a widely known 'South Jiangsu model' (*sunan moshi*). In 2001 China joined WTO and since then has become the world's factory. The TVE economy largely collapsed, because of the growth of foreign investment and competition from foreign enterprises or enterprises invested in by Chinese in Hong Kong and Taiwan. Southern Jiangsu has experienced rapid industrialisation through foreign and inward investment. The growth of cities, supported by industrial and development zones, has become a dominant feature. Under the market-oriented reform, a vibrant, heterogenous and diverse urbanism is taking place (Wu 2011). The gap between urban and rural areas is growing, and there is a startling contrast between newly developed 'commodity housing estates' in the city and dilapidated conditions in the rural areas. The lack of public facilities and social services in the latter is a major problem.

Recognising the importance of agriculture and rural areas, the Chinese government proposed to promote urban and rural integration and provide basic services to the rural areas. The balanced development of urban and rural areas is also regarded as instrumental to China's modernisation and development on the world stage. The village improvement program is a major policy in Jiangsu to achieve a more balanced urban and rural development.

THE VILLAGE IMPROVEMENT PROGRAM

In Sept 2011, the provincial government of Jiangsu announced the initiation of the 'The Beautiful City and Country Action Plan' during the 12th Five-Year period. The plan utilises rural village improvement as a breakthrough point for advancing urban-rural integration in Jiangsu, and aims to complete the improvement process across approximately 198,000 villages (including 55,000 villages which have already been improved under the beautiful city program) within the province in three to five years time. The main focus of the plan

is to improve production, ecological and living conditions in rural areas for farmers and become a model region of 'Beautiful China'.

Rural village improvement needs to be carried out while at the same time preserving the architectural heritage, the historical and cultural legacy and maintaining existing social network structures and spatial patterns. Major towns must place more emphasis on hygiene issues, water-course maintenance, waste collection and transfer, the safety of drinking water and the recycling of animal manure. In 2015, villages in Jiangsu are expected to reach a rate of 80% for daily disposal collection and recycling. Moreover, the wastewater treatment rate is also anticipated to increase significantly.

Legislation

Numerous documents and laws were published to provide guidance and criteria for the improvement of the rural environment in Jiangsu. These include *'Assessment Criteria for Rural Village Improvement in Jiangsu'*, *'Grading Schemes for Rural Village Improvement'* and *'Assessment Methods and Procedures for Rural Village Improvement'*.

The provincial government urged the Department of Construction to fully explore and utilise their technical capacities. In addition, the government also initiated a province-wide cooperation between the planning, design and construction divisions and research organisations to investigate the rural environment and frame strategies to promote the characteristics of villages in Jiangsu. 'Rural Village Improvement Technical Guidance' and relevant video sources were designed, published and delivered across villages in Jiangsu. Technical training for around 10,000 managers from different levels was provided by the provincial government, which greatly improved the capacity for advancement of the rural environment at the local level.

The Survey

To understand the living conditions in the rural villages, the Department of Construction of Jiangsu organised a province-wide social survey. The survey tried to understand the demands of rural residents for the improvement of their quality of life. 283 villages were selected, with each having different development stages, locations and dis-

tances from the major cities, and local cultures. In each village, 20 households were randomly selected to conduct face to face interviews. Figure 2 shows the distribution of the villages surveyed (Zhou et al. 2013).

According to the survey, about 65.5% of rural residents said that they wished to stay in their rural areas because the quality of air was good, the natural environment was pleasant and there were close neighbourhood relations. The result suggests that the rural areas are still desirable places to live.

The survey also found that the quality of rural dwellings in Jiangsu is generally good because a significant proportion of houses in Jiangsu were built in recent decades. About 90% of rural dwellings were constructed after 1979. The dwellings constructed in the pre-1949 period and from 1949 to 1978 only account for 0.8% and 5.9% respectively. This means the demand for the improvement of dwellings is less significant.

In contrast, the demand for improvement in the quality of life is more in the rural environment. In particular, there are concerns over the lack of basic infrastructure and facilities, including waste disposal, water source, and public space.

The survey also revealed a strong willingness for participation from rural farmers to improve their living environment. About 38% of interviewees said that they were willing to be involved, and even 35.8% were happy to manage the living environment (Zhou et al. 2013).

This large-scale social survey provides some useful information about the rural villages for the formulation of the action plan and policies in Jiangsu.

PLANNING PRACTICES OF VILLAGE IMPROVEMENT

The main objective for Jiangsu in the 12th Five-Year Plan period is to complete the village improvement program, which covers about 198,000 'natural villages' (rural settlements formed naturally without designated administrative status, that is, they do not have the status of 'designated towns'). This is a considerable challenge because of the magnitude of the work.

The practices of village improvement in Jiangsu have some interesting features. Firstly, in contrast

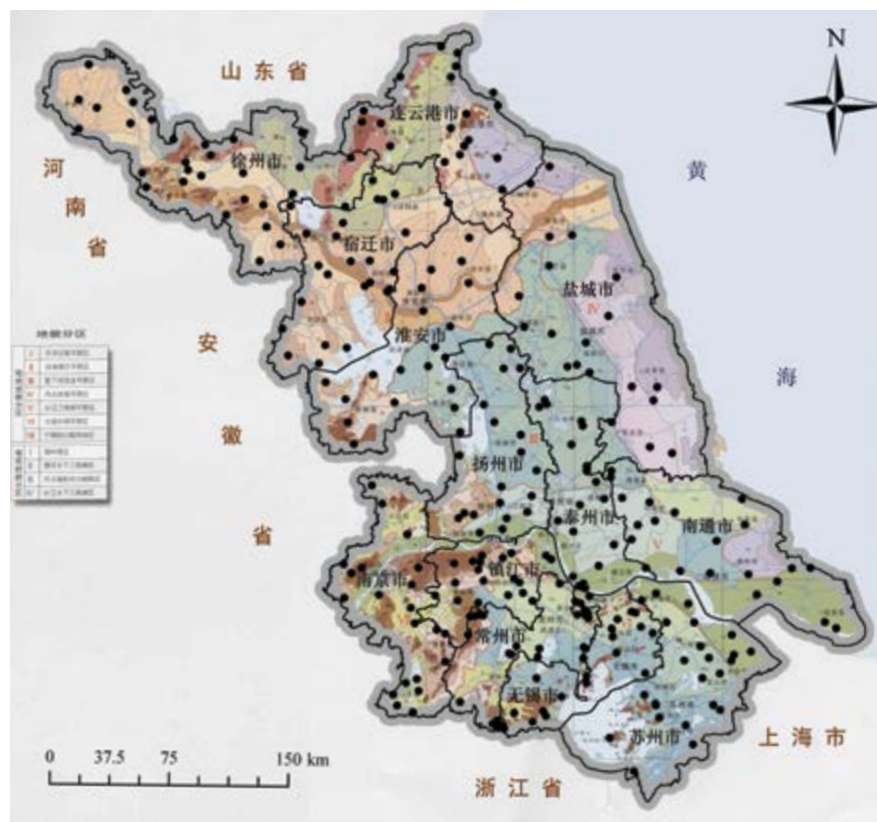


Figure 2: Distribution of Jiangsu villages surveyed

to a compulsory program, the program in Jiangsu stresses respect for the preferences of rural residents. With most rural dwellings already improved, further development should not involve large-scale demolition or reconstruction. It should focus more on the enhancement of the living environment and on making incremental changes suitable for the local conditions.

Secondly, the village improvement program classifies the rural villages in Jiangsu into two categories. Guidance has been established at two different levels: the first level is 'liveable villages', and the second level is 'healthier villages'.

For the liveable villages, the standard is higher and regulation is more stringent. The regulation is applied to these newly developed villages, which mostly have a site layout plan. There are about 40,000 villages in this category. These villages are also known as 'planned villages', or 'planned villages with a selected location', because their location

is usually chosen in the process of merging several natural villages into a larger one, that is, these 'planned villages' are different from 'natural villages', although the planned villages are still rural settlements. Figure 3 shows the site layout plan of a village, which has been designed to create a new pattern of village houses. These villages are generally built to a higher standard according to the guidance of 'six regulations and six improvements' criteria. The six regulations cover garbage, sewage, the cluttered environment, waste from agricultural production, industrial pollution sources, and maintenance of watercourse and ditch ponds. The six improvements refer to transport access, buildings with local characteristics, everyday management, public services and facilities, access to safe drinking water, and greening the living environment. After applying these criteria in the village, the aim is to create a more liveable environment that attracts more people to settle down.

The villages which developed spontaneously in the past belong to the second category of 'naturally developed villages'. The aim is to develop them into 'healthier villages', which is more pragmatic and relevant to the urgent need of the residents. There are about 150,000 villages in this category. No strict requirement for redevelopment is imposed on them. Rather, they are required to follow the 'three regulations and one guarantee' criteria. The aim is to improve the quality of the living environment. The 'three regulations' cover the requirement of garbage, the cluttered environment, and the maintenance of watercourse and ditch ponds and 'one guarantee' refers to the fulfilment of basic living conditions of farmers. It can be seen that the requirement of this category is less stringent than that of the previous category because the aim is more towards the living conditions rather than quality of the environment. However, the population of rural villages of both categories is mainly made up of farmers.

Thirdly, the village improvement program emphasises the preservation of distinctive cultures of village life during the building redevelopment. This is achieved through the maintenance of existing landscape features and historical and cultural heritage in designated historical and cultural settlements. The program is also aimed at producing a cultural renaissance in the rural areas.

Fourthly, the program adopts a strategy of incremental changes and gradual improvement. In the initial phase, local government plays a role to set up 'model villages' to display some initial achievement of environmental improvement, which further attracts the wider participation of local farmers. The approach tries to mobilise villagers to participate in the improvement program. The initial investment from the government thus became a leverage to accelerate the process of village improvement.

Finally, in terms of funding, the program sets up a sustained long-term mechanism which uses multiple sources of capital, including funds from collective economies (the income from managing village assets), money raised by the villagers themselves, county or township fiscal subsidies, and special funding from the higher level of government (e.g. the provincial government).

Cui (2012) suggests that there should be four major aspects of village improvement. Firstly, eco-



Figure 3: The site layout plan of a planned village

nomie restructuring will lead a shift from manufacturing activities to sight-seeing and tourism, recreation, and leisure activities. Secondly, the re-configuration of spatial structure and land uses will increase compactness and more efficient use of land. Fragmented land uses are to be re-adjusted to form a relatively larger plot for residential and industrial uses. This will increase the compactness because the previous village land uses have been more scattered and dispersed. Thirdly, ecological and environmental protection will remedy pollution and confine and alleviate polluted areas. Water pollution treatment is the key task for Jiangsu because of the extensive water areas. Fourthly, landscape improvements will maintain and enhance the image of rural settlements and agricultural fields. The improvement will reflect local characteristics in different regions of Jiangsu, such as the water landscape, and mountainous areas, and plain fields.

Consolidation of naturally developed villages into planned villages has been one measure to increase land use efficiency (Zhou, et al. 2010). The slogan is the ‘three concentrations’: rural residential areas will gradually be concentrated in newly built rural communities; rural industrial land will be concentrated in industrial parks; and agricultural land will be concentrated in suitably sized farms. The population of villages will increase from that of naturally developed villages with an average of 164 to an average of 586 persons. In Jiangsu, the current land used for 248,890 natural villages and 16,738 ‘administrative villages’ (with a designated administrative status, *xingzhen cun*) is 781,172 hectares. The average village land use per resident is 186 square metres, which is twice as much as that of urban residents. Through these agglomeration measures, it is estimated that 266,000 hectares of village land will be saved (Wu, 2012).

However, the motivation for merging rural villages often comes from the need to give the city more construction land. Under the Chinese land management system, each area of local government is allocated a fixed land construction quota because the central government regards the preservation of farmland as the key objective. Local government cannot develop further industrial or urban uses if the land quota for construction is used up. However, local government can create additional land quota through demolishing village land and turn it into agricultural land, because village land belongs to ‘construction land’. Converting village land into agricultural land means that the local government can develop more construction land somewhere else because the total construction land is controlled by the land development quota. However, such a local government-led ‘new countryside movement’ has been criticised for its continuing urban and industrial bias because it favours the development of the cities and industrial land development, and tends to deprive farmers of the incentive to expand the revenue of local government from land sale (Wu et al. 2012).

The village improvement program, however, does not aim at releasing village land for urban construction. Rather, it aims to improve the living conditions by providing basic infrastructure and services. For example, by the end of 2010,

Jiangsu had prepared sewage treatment plans for 2,666 villages (Wu 2012, p. 31). The city of Changshu has been nominated by the Ministry of Housing and Urban and Rural Development (MoHURD) as a demonstration region for village sewage treatment.

In Jinhu County, for example, a comprehensive garbage collection system has been set up. In each village, there are garbage bins every 100 metres, and five to six garbage transfer points, and vehicles to transport the garbage to compression stations. For every 1,000 residents, the standard is to allocate 3 waste collectors (Figure 4). By 2011 the county had developed 3,258 garbage transfer points, and there were 815 garbage vehicles (Figure 5), and every town had one garbage compression station (Figure 6) (Xia 2012, p. 90). The development of rural villages and their infrastructure reflects the perpetual effort to rejuvenate rural society after a long period of marginalization (Zhou 2012).

FINANCIAL INPUT

Provincial and local governments in Jiangsu have resolved to improve the rural environment through substantial financial input. The city of Suzhou, in particular, has designated a budget of 2.6 billion Yuan and also raised 1.4 billion Yuan from other channels for improvement work between 2012–2015 (CCP office, 2013).

In 2012, the Jiangsu Finance Department allocated a special fund of 1.1 billion Yuan for rural village improvement by following guidelines from the ‘Provincial Level Funding Guidance for Rural Village Improvement’ document. This stream of funding was combined with funding of approximately 4 billion Yuan from central government, which subsequently triggered an input of social funds of around 30 billion Yuan in total. As a result of such investment, 55,000 villages had completed their improvement process (equivalent to 32% of the total number) by the end of 2012.



Figure 4: Vehicles used by garbage collectors in small villages (Jinhu County). Photo by Min Xia



Figure 5: Garbage collection vehicles in towns and villages (Jinhu County). Photo by Min Xia



Figure 6: Garbage compression equipment in Jiangsu (Jinhu County)



Figure 7: A traditional street
in one of Jiangsu's villages.

Photo by Fulong Wu

SIGNIFICANCE OF VILLAGE IMPROVEMENT

China's urban and rural integration is a multi-faceted issue which hinges on social, economic, ecological, environmental, cultural and spatial spheres. This requires a comprehensive coordination in order to deliver substantial success.

The village improvement program has significantly improved the regional infrastructure in rural areas, including an integrated system of urban-rural water supply, waste disposal, sewage treatment and an extension of the urban bus system and services to the villages.

The program has also improved the rural landscape. It has not only preserved the traditional living environment characterised by old streets (Figure 7), rivers and small bridges, rural houses and settlements, and agricultural fields, but also enhanced the quality of tranquil rural life and diverse local cultures. Figure 8 shows peaceful rural

life near a river, and improved village housing.

The program has had a significant economic impact and has great market potential, which will open up a vast market in the rural area. The improvement of the rural environment has attracted tourists to villages, and the old street pattern has been preserved and improved. Figure 9 shows the preserved and rejuvenated traditional streets of Gaochun. The development of village tourism is expected to attract 5 million tourists during the period of the 12th Five-Year Plan, with tourism income reaching approximately 3 billion Yuan. Accordingly, rural farmers' income will increase by 2 billion Yuan. Overall, the village improvement program leverages 300 billion Yuan, boosting domestic demand and leading to steady growth of the economy. Figure 10 shows the development of electric sight-seeing vehicles which transfer tourists in the popular weekend tourist destination of 'slow town' in Gaochun, Nanjing. Small hotels and

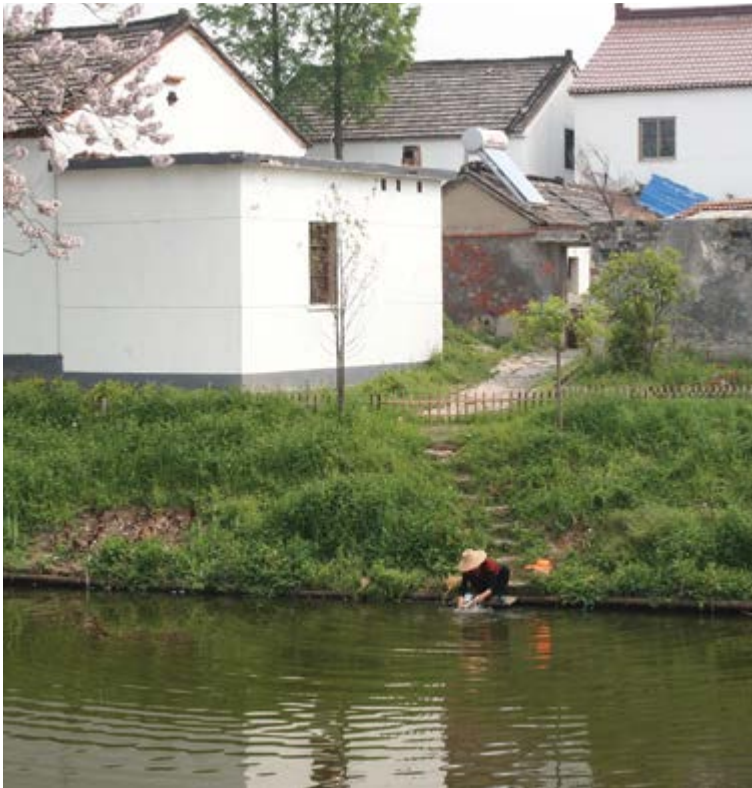


Figure 8: Village housing and tranquil rural life under Jiangsu's village improvement program. Photo by Fulong Wu



Figure 9: A preserved and rejuvenated traditional street in Gaochun. Photo by Fulong Wu



Figure 10: Facilities developed for tourism in Gaochun.
Photo by Fulong Wu



Figure 11: Small hotels built and managed by villagers for tourists.
Photo by Fulong Wu



Figure 12: The elderly in a local community centre, playing mahjong.
Photo by Fulong Wu

restaurants have been built to accommodate and entertain visitors and guests (Figure 11)

Finally, the development not only improves the hygiene quality, but also strengthens the sense of belonging and community attachment. It helps to develop a harmonious society and enhances the capacity of governance at the grassroots level. Figure 12 shows the development of a community centre where the elderly gather together, happily playing mahjong.

Village improvement is a complex program which requires the coordination of many government departments, organisations, and participants. The program has mobilised various local governments, while motivating the farmers to improve their villages in a bottom-up way. The experiment aids the process of finding a new method of administration and governance which can combine the financial support of the government and self-motivated residents in village improvement.

CONCLUSION

Fei Xiaotong, a prominent sociologist in China, suggested that the rural areas contain the fundamental genes to understand Chinese society and thus the key to social transformation (Fei 1992). Further, Wu Liangyong, an academician of the China Academy of Sciences and a renowned architectural professor at Tsinghua University, argues that there is extensive research into Chinese cities. On the contrary, research into the rural areas is still limited and inadequate. This suggests the need to promote studies of China's rural areas, which requires a conceptual shift from the urban-oriented development approach to a more balanced approach to reducing urban-rural division.

For a long time, rural areas have been neglected. They were only places to provide cheap labour for state industrialisation and land for export-oriented production. Now, the importance of sustainable

rural development has been recognised in China. In some small towns in Jiangsu province, the size of population has stabilised, and more people have returned to the rural areas. The interest in rural areas is increasing. Rather than saying farewell to the rural villages, a new museum of the Culture of Agriculture is being built to reflect the historical change and continuity (Figure 13). Cui (2012) suggests that rural village improvement is part of a profound movement of urban-rural integration in today's China, which reflects the changing relationship between urban and rural areas. The city should no longer exploit the rural areas but rather, after entering a stage of medium level of industrialisation, the city should support rural development to achieve sustainable development.

Jiangsu's village improvement program is an experiment to transform the built environment in rural areas to revitalise rural society. It emphasises the protection of the rural environment,

improving living conditions in the villages, and enhancement of rural landscapes. The improvement creates impacts beyond introducing tidiness and hygiene into rural villages but creates cultural and landscape values in the rural areas. Hectares of canola flower, peach orchard, and fir trees are creating an attractive landscape in rural Jiangsu. While landscaping may not bring immediate economic benefit, it enhances the quality of these places as a tourist and recreation destination (Wang 2012). In essence, village improvement is the farmers' regeneration of their homes rather than an imposed activity or regulation from the government.

Compared with rural development programs in other places in China, Jiangsu's village improvement scheme respects the farmers' entitlement and property rights. It does not require farmers to give up their land in exchange for social benefits in the city. It does not aim at large-scale

Figure 13: The new Museum for Cultures and Agriculture. Photo by Fulong Wu



demolition of villages and formalising the informality in rural China (Wu et al. 2013). Rather, it helps farmers to improve the rural village as an attractive and liveable home. Throughout, city planning plays an important role in this process of social transformation, which resonates with the creation of the 'Garden Cities' concept in the 19th century industrialising England (Hall, 2002). Spatial changes may sound programmatic and trivial but the accumulated effect is profound and represents a more forceful shift from urban-rural dualism to urban-rural integration in China. Just as various historical planning ideals alleviated the negative impact of the Industrial Revolution, Jiangsu's village improvement provides an interesting experiment in response to the impact of globalisation, and it may be useful for many developing countries to reconsider the role of the countryside under similar rapidly urbanising and globalising processes. ■

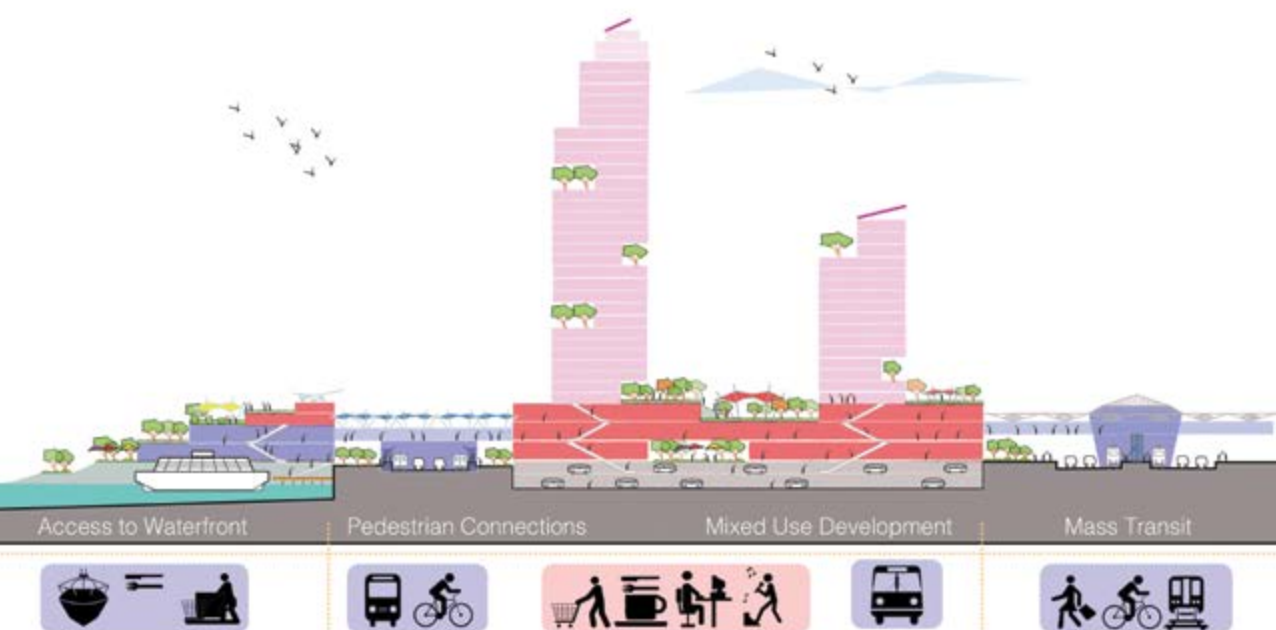
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PLANNING FOR LOW CARBON ECO-CITIES IN CHINA – NEW PATHWAYS

Stanley C. T. Yip



The planning of major urban development projects in Chinese cities based on low carbon ecological principles has recently been gaining tremendous momentum. This important phenomenon has been driven by a multitude of initiatives: the policy support provided by the Chinese central government, the political will of local municipalities, a surge in academic research into alternative urban growth models, collaboration with Chinese cities by international organizations and NGOs, as well as a growing interest in low carbon eco-cities in professional planning practices.

Achieving low carbon ecological urban development through integrated urbanism and access to public transit

INTRODUCTION

This article attempts to bring together and examine systematically these recent activities in China, with specific focus on three important aspects of the movement: (1) The chronology of its gathering in pace; (2) The planning of pilot and demonstration low carbon eco-city projects across the country; and (3) the recent important policy development to incorporate low carbon eco-city goals as part of the statutory planning system. It includes a case study of a notable demonstration project, the low carbon eco-city implementation plan for the Zhengding New District, Shijiazhuang, Hubei Province.

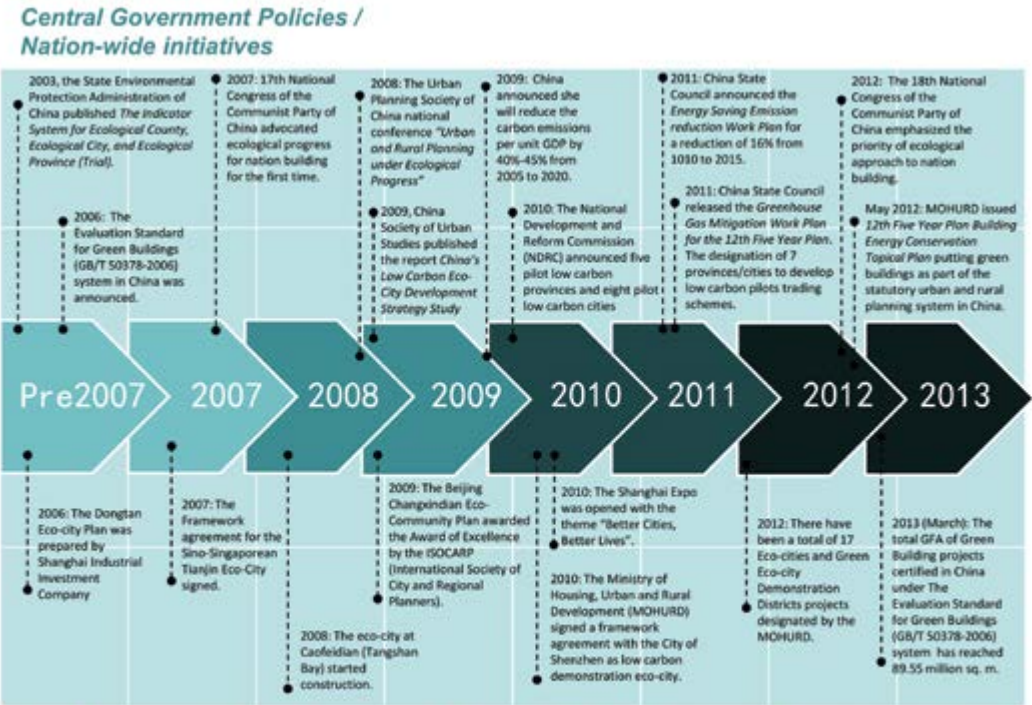
In its final sections, it addresses the crucial matter of implementation generally and it explores the way ahead. The experience of China in this pursuit towards the frontiers of eco-city planning may perhaps turn out to be the most important lesson and pilot for the rest of the world.

THE LOW CARBON ECO-CITY PLANNING MOVEMENT IN CHINA: A CHRONOLOGICAL OVERVIEW

The origin of the “eco-city” concept

The concept of “eco-city” can be traced back to the late 1980s when Richard Register (1987) coined the term in his book *Ecocity Berkeley: Building cities for a healthy future*. In this book he saw the city as an ecosystem with a land use pattern that supports biodiversity. Then in the years that followed, different terminologies such as “eco-community” or “eco-village” were proposed. These nevertheless all have common notions: that cities are systems that have physical inflows and outflows, and that these processes are integrated parts of the larger ecosystems of our planet. This ecological systems approach had actually been suggested in earlier work by ecologists such as Wolman (1965). Ever since the earlier inception of the concept, many scholars and practitioners in the fields of urban planning and design have developed the concept further and contributed to the wealth of knowledge (Mumford, 1997; Calthorpe, 1993; Wong, TC and Yuan, B. 2011).

Although the concept of the eco-city can trace its roots back to western literature and research, the concept has been endorsed and promoted in the developing economies as guiding principles for managing rapid urbanization. The most remarkable example is that of China (Yip, 2008a).



Local Responses / Support

A Recent Chronological Summary of the Low Carbon Eco-city Movement in China

Figure 1: A Chronology of the Milestones of the Low Carbon Eco-city Movement in China (2003 to the present)

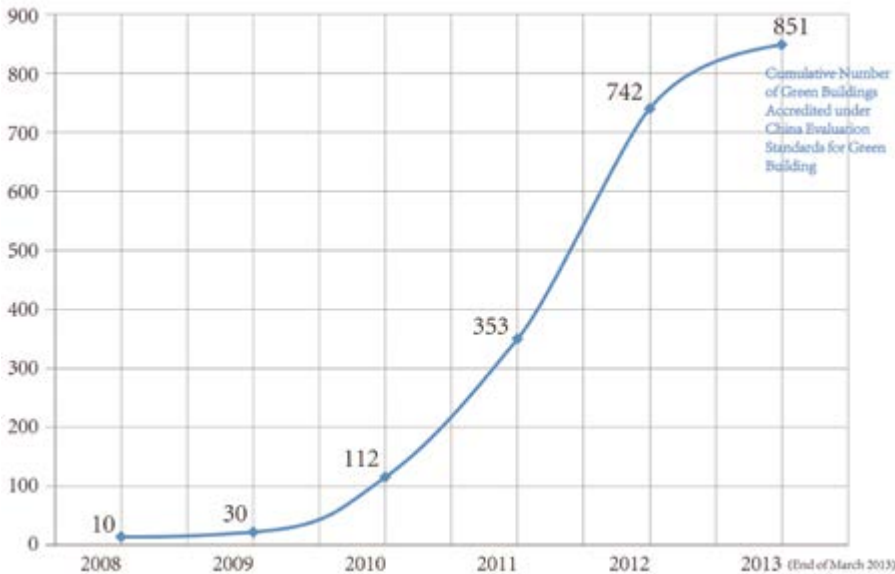


Figure 2: The Growth of Green Buildings in China

The recent low carbon eco-city and green building movement in China:

A chronological overview

The paper now highlights some of the key events in the development of the eco-city planning movement in China. These are summarized in Figure 1, which attempts to juxtapose the introduction of key central government policies and the responses at local municipality level. Figure 2 presents the cumulative number of Green Building projects certified under the *Evaluation Standard for Green Buildings* which is taken as an indicator of the response of the market in moving towards low carbon, eco-cities.

A detailed chronology of these milestones is presented below:

1980s and 1990s:

- The beginnings of the low carbon eco-city movement in China date back to the mid-1980s when the idea of applying ecological planning principles to city planning and management were first raised amongst academics and research institutes. The “*International Forum of City and Urban Ecological Studies and their Application in Urban Planning and Development*” held in Beijing in 1987 initiated the promotion of the construction of eco-cities. In the late 1980s, the *Study on Urban-rural Environmental Protection and Ecological Design* was carried out in Shanghai. Wang XR (2001) proposed an indicator system for the ecological environment of Shanghai in 2001. China was also one of the first developing countries to announce the implementation of a sustainable development strategy.
- China’s Agenda 21 promulgated in 1994 was an important milestone in influencing the eco-city planning movement. It included a chapter entitled the Sustainable Development of Human Settlements
- The State Environmental Protection Administration of China (SEPA) subsequently issued and publicized the document *Planning Outline for the Construction of National Ecological Demonstration Areas (1996 – 2020)* in 1996. In 1998, the State Council endorsed the *National Ecological Environment Construction Planning Policy*, thereby elevating the significance of

ecological issues to national government level.

- From the 1990s, a number of Chinese cities have started to promote the planning and development of ecological cities. Under the guidance of the *Planning Outline for Construction of National Ecological Demonstration Areas*, a series of experimental ecological projects in cities were initiated. For example, the goal of developing an ecological city was put forward successively in Changchun, Beijing, Shanghai, Tianjin, etc. A study on ecological city planning by China in collaboration with Germany was also conducted in the cities of Yangzhou and Changzhou in 2001.

2003:

- In 2003, the State Environmental Protection Administration of China published *The Indicator System for the Ecological County, the Ecological City, and the Ecological Province (Trial)*. In tandem, academic interest in studying the development of an appropriate set of performance indicators for cities in China has increased. The research work undertaken by Huang GY et al (2002) has been most influential and comprehensive.

2006:

- *The Evaluation Standard for Green Buildings (GB/T 50378-2006)* in China was announced in 2006 and came into effect in 2008. The system comprises six groups of indicators, namely: (a) Land Saving and Exterior Environment; (b) Energy Saving and Energy Resource Utilization; (c) Water Saving and Water Resource Utilization; (d) Material Saving and Material Resource Utilization; (e) Indoor Environmental Quality; and (f) Operation and Management (The Ministry of Housing, Urban and Rural Development (MOHURD), 2006).

2007:

- In his report to the October 2007 meeting of the 17th National Congress of the Communist Party of China in Beijing, the General Secretary Hu Jintao advocated ecological progress for nation building. The policy focus was translated as “ecological civilization” in China’s official documents.
- Also in 2007, the Chinese Government and

the Singapore Government signed the framework agreement to jointly develop the Sino-Singaporean Tianjin Eco-city in the City of Tianjin. This signified the adoption of a 'project' approach to the planning and implementation of eco-cities in China through international collaboration.

- In December 2007, the National Development and Reform Commission issued a notice designating the Wuhan city cluster and Chang-Zhu-Tan city cluster as National Comprehensive Supporting Reform Pilot Areas to build a resource conserving and environmentally friendly society (China Daily, 2012). These two city clusters will enjoy special policy status as a pilot area, and can act outside the normal municipal authority to introduce new ideas and experimental policies.

2008:

- In 2008, the year after ecological progress was cited in the Party congress report, China raised the status of the State Environmental Protection Administration to that of a ministry, which is responsible for improving the environment and ecological protection and for accelerating the building of a resource-saving and environmentally-friendly society (Xinhua News, 2012).
- In 2008, MOHURD started to implement *The Evaluation Standard for Green Buildings (GB/T 50378-2006)* system.
- In March 2008, construction started on the eco-city at Caofeidian (Tangshan Bay) in the City of Tangshan.
- In September 20-08, the Urban Planning Society of China held its annual national conference in Dalian with the theme "Urban and Rural Planning: Ecological Progress".¹

2009:

- In May, the first research institute with a specific focus on low carbon research studies, The Baoding Low Carbon City Research Society, was established in the City of Baoding.
- In August, the Climate Group (a global NGO with headquarters in the UK) announced a plan to support cities in China to build low carbon cities. The Climate Group will work to promote the establishment of 10-15 low carbon eco-cities in China.

- On 22 September, President Hu Jintao represented China at the United Nations meeting in New York where he announced that, for the first time, China will include climate change as an element in national economic and social plans. He also emphasised the determination of China to manage the impact of climate change and build a green economy for the country.
- In October, the report *China's Low Carbon Eco-City Development Strategy Study* was released by the China Society of Urban Studies (CSUS) providing a strategic framework to plan, design, construct and manage low carbon ecological cities in China.
- On 22 October, the City of Wuxi and Sweden signed a collaborative agreement to jointly implement a "China Wuxi – Sweden Eco-city" in the Taihu New Town.
- In November, The Beijing Changxindian Eco-Community Master Plan and Regulatory Zoning Plan, jointly prepared by Arup and the Beijing Municipal City Planning and Design Institute, was given the Award of Excellence by ISOCARP (International Society of City and Regional Planners).
- On 25 November, the State Council Standing Committee meeting chaired by Premier Wan Jiabao resolved that China would reduce carbon emissions per unit GDP by 40% - 45% from 2005 to 2020. This was the first time that China publicly made a commitment on specific quantitative targets for emission reductions.
- On 18 December, Premier Wan Jiabao attended the COP 15 meeting of the UNFCCC in Copenhagen and pointed out that China was one of the countries which had prepared a national plan on managing climate change.

2010:

- In January, MOHURD signed a framework agreement with the Municipal Government of the City of Shenzhen as a low carbon demonstration eco-city.
- Also in January, Shanghai Municipal Government announced development proposals for the Chongming Ecological Island at the northern end of Shanghai, with a focus on nature conservation.
- In March, the *City of Wuxi Ecological Construc-*

tion Plan was endorsed by the Ministry of Environmental Protection. This was China's first eco-city construction plan.

- In the same month, the City of Jilin released the *Low Carbon Roadmap for the City of Jilin*. This roadmap represented one of the most comprehensive studies on low carbon city development in China.
- In April, the Shanghai Expo was opened with the theme "Better Cities, Better Lives". This international event exhibited many new energy and green building technologies.

2011:

- In August, the State Council announced the Energy Saving Emission reduction Work Plan for the 12th Five Year Plan. The national target is to achieve 0.869 tce energy usage per 10,000 Yuan GDP by 2015. This will be a reduction of 16% from the energy usage level of 2010.
- Also in August, the National Development and Reform Commission (NDRC) of China announced that five provinces and eight cities in China will be designated as "pilot examples of low carbon provinces and cities" in China (People's Daily, 2010).
- On 1 December, the State Council released the *Greenhouse Gas Mitigation Work Plan for the 12th Five Year Plan*. Specific policies and actions have been put in place to reduce the emissions. One of the key initiatives is the setting up of a voluntary carbon trading system, as well as the designation of 7 provinces/cities as low carbon pilots (these are the cities of Beijing, Tianjin, Shanghai, Chongqing; and Hubei province, Guangdong province, as well as the City of Shenzhen).
- On 25 December, the first group of 418 residents took possession of their units in the Mangrove Bay neighbourhood in the Sino-Singaporean Tianjin Eco-city. This marked a new milestone in the city's development. It is expected that by 2013, the population in the city will reach 30,000.

2012:

- In 2012, in his report to the 18th National Congress of the Communist Party of China, the General Secretary Hu again emphasised that China must give high priority to making eco-

logical progress, work hard to build a beautiful country, and achieve the lasting and sustainable development of the Chinese nation. For the first time, the Central Government decided to give ecological progress a more prominent position by incorporating it into the country's overall development plan together with economic, political, cultural and social progress.

- In May, MOHURD issued a policy notice entitled the "12th Five Year Plan Building Energy Conservation Topical Plan", incorporating for the first time green buildings as part of the statutory urban and rural planning system in China.
- By November there were a total of 17 Eco-cities and Green Eco-city Demonstration District projects designated by MOHURD. These projects received official endorsement and financial grants from the Central Government.
- During 2012, the total number of residential and public Green Building projects certified under *The Evaluation Standard for Green Buildings (GB/T 50378-2006)* system (design stage) reached 389, with a total gross floor area of 40.9 million sq. m.

2013:

- By mid-March, the total number of residential and public Green Building projects certified in China since 2008 had reached 851, with a total gross floor area of 89.55 million sq. m. (Li, 2013).
- On 3 April, MOHURD announced the "12th Five Year Plan Green Buildings and Green Eco-City District Development Programme" which includes targets of designating 100 Eco-city Demonstration Districts all over the country, and certifying a total of 1 billion sq.m. of Green Buildings by 2015 (MOHURD, 2013).
- In May 2013, MOHURD announced the first batch of Sino-US pilot low carbon eco-cities under the memorandum of understanding signed between MOHURD and the Department of Energy of the US Government. These include: Hefei, Rizhao, Langfang, Weifang, Jiyuan, and Hebi.

The above brief outline shows that there has recently been a growth of interest amongst city leaders and professionals on the planning and

development of low carbon eco-cities in China. This was partly due to the increasing awareness of the need to adopt a sustainable approach to managing the unprecedentedly fast urbanization of China, and also partly because the Government has taken a top-down approach through the vigorous policy of the Ministry of Housing, Urban and Rural Development (MOHURD) in promoting international collaboration, as well as local partnerships with municipalities.

The next section of this paper will provide an account of the active responses of local municipalities, which resulted in the proliferation of 'pilot' or 'demonstration' projects all across the country.

LOW CARBON ECO-CITY PILOT OR DEMONSTRATION PROJECTS : BENCHMARKING AND STANDARDS

The challenges

An important factor in the advancement of the low carbon eco-city movement in China is the enthusiasm of the local authorities in identifying and designating pilot or demonstration low carbon eco-city projects (Yip, 2008b). As at 2012, there are more than 180 cities in China that have officially announced policies to adopt the low carbon eco-city development model for their future development (Wang, 2013).

Over recent years, and as encouraged by Central Government policy incentives, there has been growing interest regionally and locally in the call for the planning and development of low carbon cities based on energy efficiency, carbon dioxide emissions reduction and ecological principles. This is manifest in the 'demonstration projects' that have been put forward by local governments, developers and also through inter-governmental joint effort.

They represent various efforts to search for the appropriate planning and implementation model (Qiu, 2009). These projects could be a new town on green field land or urban regeneration development on brown field sites. Some of these are retrofit projects for existing decaying housing stock in older parts of the cities.

In view of the growth in the number of projects across China claiming to be "low carbon" and "ecological" in nature, there have been discussions on how to provide the appropriate guidance to the

local municipalities and development industry on the "standard" to be attained. The vice-minister of MOHURD, Dr. Qiu BX has pointed out that the development of low carbon eco-city projects faces five current challenges (Xinhuanet, 2012):

- a. There has not been adequate focus on localization and popularization of low carbon ecological technologies (such as renewable energy, green transport, building energy efficiency design, etc);
- b. There are low carbon development projects and green buildings that are below the national standards;
- c. There is a lack of effective systems to verify the performance and monitor the implementation of these projects;
- d. Some projects are located too far away from the existing urban core areas of the city (and hence transportation tends to depend on cars);
- e. The transportation networks and traffic systems of some of these projects are still planned and designed based on the traditional approach which facilitate private car traffic.

One approach to promote the appropriate planning approach and set a national benchmark for the projects has been an initiative by MOHURD to designate, through an assessment process, projects which have met criteria such as "Green Eco-City Demonstration District Projects".

By the end of 2012, MOHURD had designated 17 "Green Eco-city Demonstration Districts Projects" and provided financial grants to support their planning and design effort. The designation process is based on applications made by the project proponents (including the developers/owners as well as the endorsement by the local governments). These projects are expected to meet certain minimal planning and design criteria before they will be considered for assessment by MOHURD.

Low carbon cities and green eco-city district demonstration projects: assessment criteria

Prior to 2011, the MOHURD had set up twelve pilot eco city projects in collaboration with local authorities, including the most well-known Sino-Singapore Tianjin Eco-city. From 2011 onwards, the MOHURD has further standardized the dem-

| Project Name | Area (Sq. km) | Planned Population (1,000) | Per Capita Development Land Area (Sq. m) |
|---|------------------|-------------------------------|---|
| 1 Sino-Singapore Tianjin Eco-City, Tianjin | 30 | 350 | 58 |
| 2 Tangshan Bay Eco-City (Caofeidian), Tangshan, Hubei Province | 74.3 | 800 | 93 |
| 3 Wuxi Taihu New City, Wuxi, Jiangsu Province | 150 | 1000 | 100 |
| 4 Guangming New District, Shenzhen, Guangdong Province | 156.1 | 800 | 73 |
| 5 Pingshan New District, Shenzhen, Guangdong Province | 168 | 700 | 94 |
| 6 Zhengding New District, Shijiazhuang, Hubei Province | 200 | 1400 | 96 |
| 7 Beidaihe New District, Qinhuangdao, Hubei Province | 425.81 | 200 | 109 |
| 8 Huanghua New Town, Cangzhou, Hubei Province | 110 | 500 | 96 |
| 9 Zhuozhou Eco Livable Demonstration Base, Zhuozhou, Hubei Province | 43 | 500 | 85 |
| 10 Binhu New District, Hefei, Anhui Province | 196 | 1000 | 122 |
| 11 Nanqiao New Town, Shanghai | 71.39 | 750 | 61 |
| 12 Hongqiao Business District, Shanghai | 86 | 530 | 162 |
| 13 Yuelai Eco-city, Chongqing | 3.44 | 57 | 43 |
| 14 Meixihu New District, Changsha, Hunan Province | 7.64 | 178 | 40 |
| 15 Tiantanghu New District, Chizhou, Anhui Province | 14.53 | 145.5 | 85 |
| 16 Zhongtian Future Ark Eco-city, Guiyang, Guizhou Province | 9.53 | 172.6 | 40 |
| 17 Chenggong New District Eco-city, Kunming, Yunnan Province | 160 | 950 | 68 |

Table 1: List of Approved Low Carbon Cities and Green Eco-city District Demonstration Projects. Sources: MOHURD; Wang, 2013; Author analysis



Figure 3: Geographical Distribution of the Approved Low Carbon and Green Eco-city District Demonstration Projects

onstration project approach in order to reach out more widely. Thus “Green Eco-city District” Demonstration Projects are evaluated based on various policy documents that specify the guiding principles and planning standards. 2 Among other things these specify that:

- a. The local authority should incorporate relevant low carbon and ecological planning principles and performance indicators into its statutory Master Plan and Detailed Plans;
- b. The location district for the project should have an area not less than 3 sq. km and should not intrude into agricultural land;
- c. The district should not be more than 30 km from the city centre and not be more than 100 km from a large city;
- d. The district should be accessible to highway and rail links;
- e. The district should support green transport principles;
- f. The local authority should set up a suitable coordination body, and funding and implementation arrangements;
- g. The local authority should prepare a low carbon eco-city plan and an implementation plan for the district.
- h. In September 2012, MOHURD further consolidated these policy guidelines into a common scheme for the approval of the “Green Eco-city District” Demonstration Projects initiatives submitted by the local municipalities.

The designated low carbon cities and green eco-city district demonstration projects

By the end of 2012, therefore, there were a total of 17 Eco-cities and Green Eco-city Districts designated or endorsed by the MOHURD under the various policy guidelines. These projects are important as they represent the type of low carbon eco-city officially endorsed by the Government of China through a process of application/assessment/designation in accordance with set principles. Table 1 and Figure 3 compare the projects in population and area terms and show their respective locations.

It is anticipated that more cities will apply for this designation and there will be a growth in the number of demonstration projects approved by MOHURD in the near future. In fact, as at March

| | Population | Area (km2) |
|---------------------------|------------|------------|
| Chongqing Yuelai | 57,000 | 3.44 |
| Berne | 125,681 | 51.62 |
| Chizhou Tiantanghu | 145,500 | 14.53 |
| Guiyang Zhongtian | 172,600 | 9.53 |
| Changsha Meixihu | 178,000 | 7.64 |
| Qinhuangdao Beidaihue | 200,000 | 425 |
| Tianjin Eco-city | 350,000 | 30 |
| Canberra | 367,751 | 814.20 |
| Wellington | 395,600 | 444.00 |
| Canzhou Huanghua | 500,000 | 110.00 |
| Zhouzhou Eco Livable Base | 500,000 | 43.00 |
| Dublin | 525,383 | 114.99 |
| Shanghai Hongqiao | 530,000 | 86.00 |
| Copenhagen | 562,253 | 77.20 |
| Shenzhen Pingshan | 700,000 | 168.00 |
| Shanghai Nanqiao | 750,000 | 71.39 |
| Shenzhen Guangming | 800,000 | 156.10 |
| Tangshan Bay Eco-city | 800,000 | 74.30 |
| Stockholm | 871,152 | 188.00 |
| Kunming Chenggong | 950,000 | 160.00 |
| Hefei Binhu | 1,000,000 | 196.00 |
| Wuxi Taihu | 1,000,000 | 150.00 |
| Shijiazhuang Zhengding | 1,400,000 | 200.00 |
| Vienna | 1,757,353 | 414.65 |

Table 2: Proposed Low Carbon Eco-City Projects in China Compared with Selected Capital Cities of other Countries. (Sources: MOHURD; en.m.wikimedia.org; Author analysis.

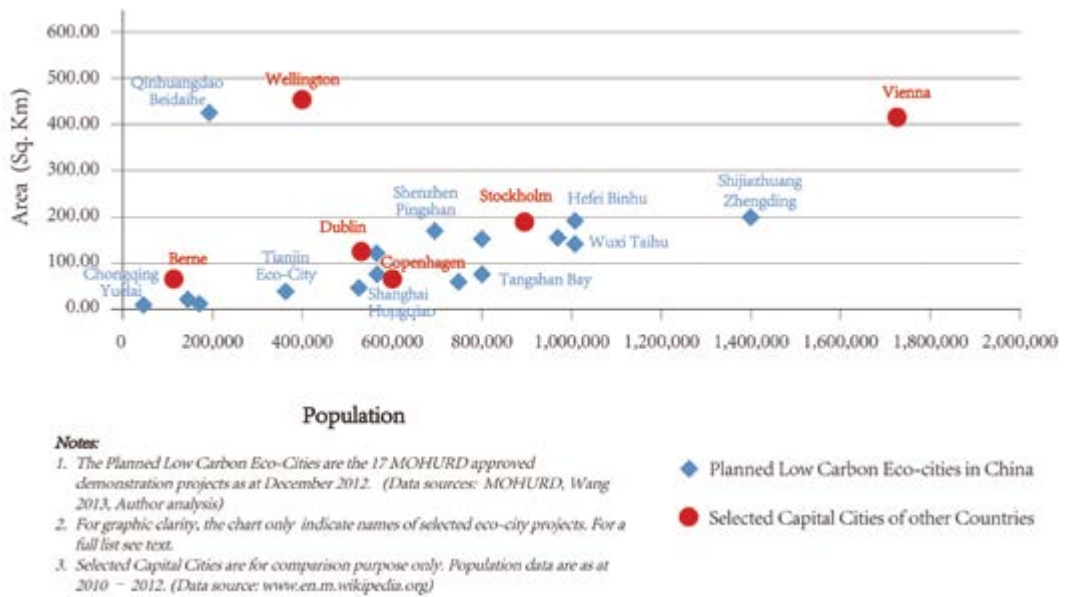


Figure 4: Comparison of the Area and Population of the Proposed Low Carbon Eco-city Projects in China with Selected Capital Cities of other Countries

2013, another 30 cities had submitted their projects to MOHURD for approval (CNTN, 2013).

It is noted from Table 1 that the scale of the low carbon eco-city projects extends to more than 425 sq. km. in the case of the Beidaihe New District. The smallest is the 3.44 sq. km project of Yuelai Eco-city in Chongqing. 8 projects out of the 17 have area coverage of more than 100 sq. km. In terms of population, 11 of the 17 projects have a planned population of more than 5 million, with the largest planning for 15 million. Only one has a population target below 1 million.

Figure 4 and Table 2 list these projects against 6 selected capital cities which are comparable in population size (existing) in other countries. From the comparison it is recognized that most of these Eco-cities or "Green eco-city District" Demonstration Projects are similar in area and in population to the selected comparables. It is remarkable that the Chinese Government's decision to designate a total of 100 demonstration projects by 2015 could represent the planning and construction of settlements for 100 million people, covering a land area of 20,000 sq. km. This programme demonstrates one important characteristic of the low

carbon eco-city movement in China which distinguishes it from the previous city building experience in western countries: the large scale and the rapid pace of urbanization are unprecedented in the urban settlement history of the world.

While these demonstration projects vary in terms of their scale and area coverage, their master plans adopt the following general planning and design principles and goals:

- Strong focus on carbon emission reduction through energy consumption management in buildings, transport and industry
- Increasing neighbourhood energy efficiency by combined heating, cooling and power generation facilities
- Maximum usage of renewable energy including building integrated energy production systems
- Supported by resource management strategies covering water supply and waste management
- Enhancement of the energy efficiency of building through higher building code standards and passive design

- Promotion of green transport through walking, cycling and public transport as modes of movement, and discouraging the use of cars
- Enhancement of microclimate comfort through urban design

These demonstration projects will serve as the learning platforms and also focus of innovations in the implementation of the low carbon eco-city model in China. It is too early to assess the performance of the initiatives as these planned projects are all at different stages of implementation from land sales, design, and construction to management. Some early reports can, however, provide an insight into progress. For example, the target of the sino-singapore tianjin eco-city as outlined in the master plan is to achieve an overall 20% of renewable energy usage. As at the end of 2012, four kinds of renewable energy sources have been deployed in the project including solar power, wind power, solar hot water as well as geothermal energy. The percentage of renewable usage actually achieved so far is 26.3% (Bohai morning post, 2012).

The Zhengding “New district low carbon plan” in Shijiazhuang, Hubei Province

The project is located in the City of Shijiazhuang, the new district being about 20 km from the city centre. To the west is the famous historical Zhengding Town while to the south is the Eastern Industrial Area (Figure 5). The project area is approximately 200 sq. km. The Master Land Use Plan is indicated in Figure 6.

The proposed Low Carbon Eco-city Plan is reflected in two levels of the statutory municipal planning process: the preparation of a comprehensive low carbon eco-city planning strategy and a proposed system of performance indicators. These indicators include: ecological space, environmental protection and pollution control, green transport, energy, water resources and waste management. Below is a summary of the low carbon eco-city performance standards for the project:

- The environmental protection strategy includes the enhancement of the water quality required in the publicly accessible water bodies.
- Green transport will be adopted by increasing

the public transit share to not less than 70% (public transport, walking or cycling), locating facilities at public transportation nodes’ and siting community facilities such as parks, schools, kindergarten, etc. within 500 m walking distance from neighbourhoods (Figure 7).

- The proposed residential building energy target is set at 75% of the 1980 base line and this represents a further 20% reduction from the current statutory building code requirements (Figure 8).
- The building renewable energy utilization rate will reach 15% through the use of solar hot water, solar power, biomass and geothermal technologies (Figure 8).
- A minimum of 50% of all the buildings in the new district will be certified Green Buildings.
- The non-potable water utilization rate will be not less than 45%.
- The overall average rainwater infiltration rate of the whole district will be 75%, which is the same as the pre-development situation, hence representing a zero impact approach.
- For waste management, it is proposed that the waste recycling or re-use rate will be not less than 90%.
- The urban woodland coverage will be increased to not less than 50% to enhance the carbon sink capacity of the tree cover (Figure 9).
- A network of urban green spaces will be incorporated to reduce heat island effects to less than 1.5 degree (Figure 10).

IMPLEMENTATION MECHANISMS FOR THE LOW CARBON ECO-CITY PROJECTS: TOWARDS A STATUTORY PLANNING APPROACH

Implementation is the key issue for low carbon eco-city projects and it is a MOHURD requirement that suitable institutional mechanisms are in place at the assessment stage to ensure that the planning concepts will be realized. The present 17 projects all have varying levels of proposals for implementation.

The critical issues of the local planning mechanism and of the appropriate form of governance for the projects have started to attract attention in policy research (Qiu, 2008; Yip, 2012).

The current China statutory planning systems under the Urban and Rural Planning Law encom-



Figure 5: Location of the Zhengding New District in the City of Shijiazhuang. Source: Arup

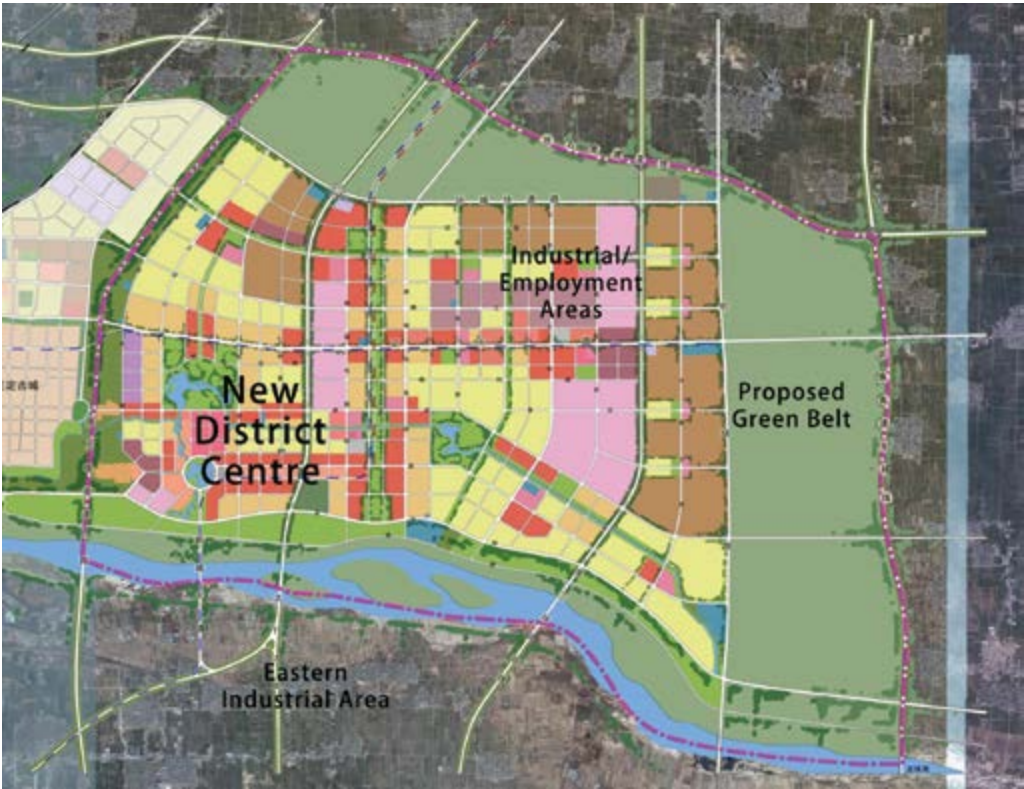


Figure 6: The Zhengding New District Master Land Use Plan. Source: <http://www.lay-out.com.cn>

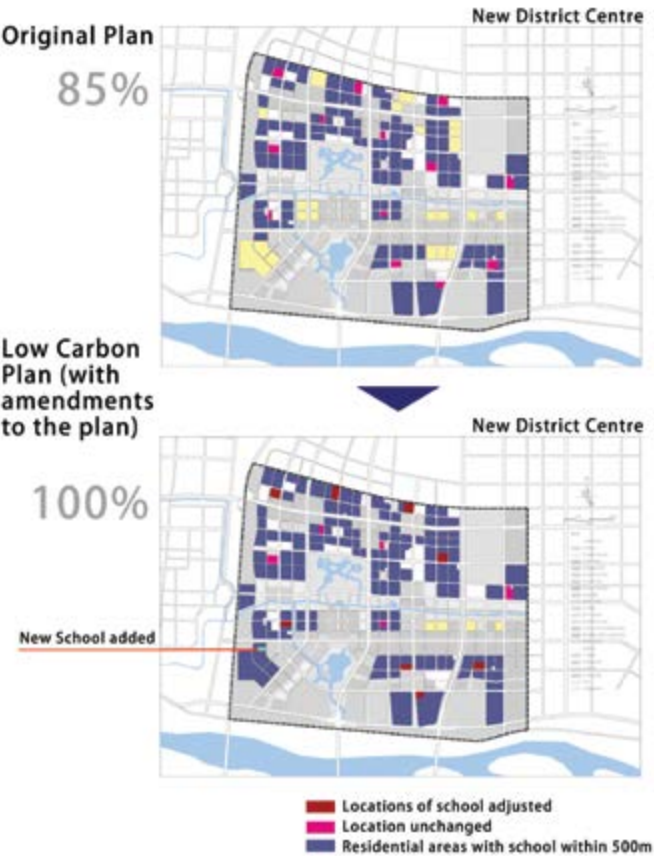


Figure 7: All Residential Areas have a Primary School within 500m. Source: Arup

Energy Saving and Renewable Energy Indicator:

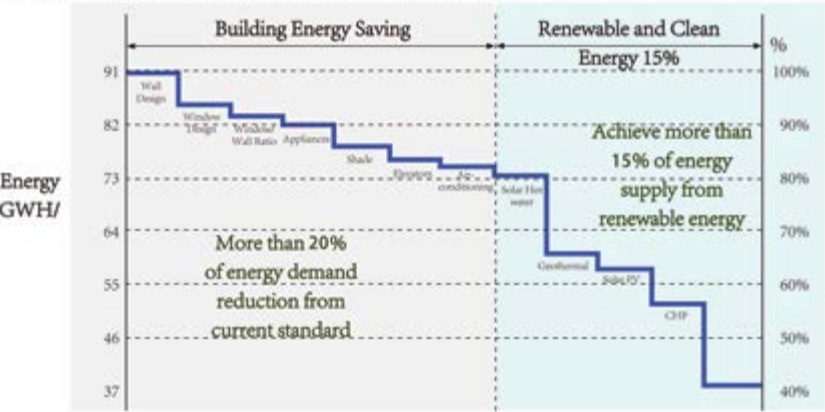


Figure 8: Building Energy Saving and Renewable Energy Targets. Source: Arup



| Types of Open Spaces | Area (ha) | Green Area (ha) | Landscape Area (ha) | Average woodland coverage |
|--------------------------------|-----------|-----------------|---------------------|---------------------------|
| Public Open Space | 279 | 223 | 223 | 40% |
| Green Belt | 202 | 182 | 182 | 90% |
| Residential Area | 664 | 232 | 186 | 40% |
| Public Facilities | 855 | 299 | 239 | 40% |
| Municipal Services | 35 | 9 | 8 | 40% |
| Roads | 555 | 111 | 100 | 60% |
| Average Woodland Coverage rate | | | | 52% |

Figure 9: Average Urban Woodland Coverage Rate not less than 50%. Source: Arup

pass a hierarchy of plans from the Regional Urban Systems Plan, to the city-wide Master Land Use Plan, to District Master Land Use Plan, to Detailed Plans. The Detailed Plans include both Regulatory Plans (zoning plans) as well as Site Plans. The Regulatory Plans are the fundamental development control tools employed to regulate and control site specific development (density, coverage and uses). The Regulatory Plans also act as the fundamental basis for the preparation of planning conditions for individual sites. These conditions are normally enforced as specific terms in the land use lease agreement signed between the Government and the developer just before the land title transfer.

The Regulatory Plans put great emphasis on setting out site specific physical development parameters such as maximum density, plot ratios, setback requirements as a means to control development forms, scale and physical dimensions. In order to promote effective implementation

of low carbon eco-city projects, it has been proposed that the scope of the statutory local planning system be expanded to incorporate the low carbon eco-city goals (Yip, 2009).

Towards statutory planning systems for low carbon eco-cities

The Chinese Government has announced important policy directions in three policy documents very recently. These are explained below.

- a. In May 2012, MOHURD issued the policy Notice on the “12th Five Year Plan Building Energy Conservation Topical Plan” (MOHURD, 2012). This document indicates that in order to popularize green buildings, local authorities shall adopt green concepts to guide the preparation of urban and rural plans and performance indicators “as mandatory planning parameters as part of the Regional Master Land Use Plan, Regulatory Plans, Site Plans and topical plan-

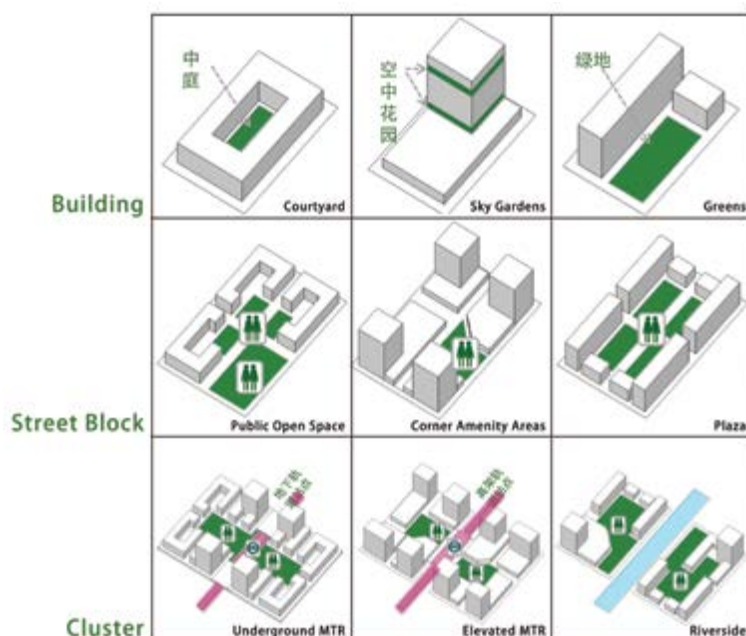


Figure 10: Network of Urban Green Spaces to Reduce Heat Island Effect. Source: Arup

ning studies". This means that the local planning authority now has the policy basis to expand beyond the conventional physical design and spatial planning contents of the statutory plan to include matters relevant to green buildings, - including energy efficiency, water conservation, renewable energy, waste management and rain water recycling;

- b. The State Council of the Chinese Government published the *Green Building Action Plan* in January 2013. The plan stressed that local governments "*shall include green building percentage, ecological protection, public transit, renewable energy utilization, compact land uses, recycled water utilization, waste recycling performance indicators*" as part of the statutory "*Master Land Use plans, Regulatory Plans, Site Plans and topical studies, and that these must be implemented through specific identified projects*";
- c. On 3 April 2013, MOHURD announced the "*12th Five Year Plan Green Buildings and Green Eco-City District Development Programme*". This programme provides further details and performance targets for the ministry over the

years 2011-2015. Local authorities are to prepare "Green Eco-City District Plans", as part of the statutory Urban Systems Plans and Master Land Use Plans. The aim should be "*the setting up of an assessment system and refining the institutional mechanisms for the planning, construction, operation and monitoring of these plans*".

These policy documents represent a leap forward for the Chinese Government in pushing ahead to secure the development of low carbon eco-cities across the country. As these policies have been announced very recently, it is still too early to assess their effectiveness and specific impacts. However, it is clear now that low carbon eco-cities and green buildings are part of the statutory planning process under the Urban and Rural Planning Law in China.

Potential impacts and changes in local planning practices in chinese cities

The potential implications of these institutional changes upon the local planning system in Chinese cities are as follows:

A. Impacts on the city-wide and district master Land use plans:

Based on the requirements of recent policy directives, the City-wide Master Land Use Plan and the District Master Land Use Plans can now identify the various means to reduce carbon emissions throughout the urban development process, and the adaptation measures, as well as their effectiveness. These possibilities may then be formulated as a low carbon urban planning strategy in support of the relevant city-wide or district-wide policies. Typically, the content may provide for the following, among other things:

- Renewable energy and clean power generation
- Combined heating, cooling and power generation
- Restructuring of industry
- Clean industrial production and low carbon economy
- Compact development and urban form
- Transit oriented development
- Energy efficient building codes
- Consumer education and energy labelling
- City adaptation plans : flooding, weather extremities, ecological changes
- Carbon tax and other fiscal incentives
- Food and agriculture policies

These planning principles and strategies could then be integrated as part of the statutory City Master Land Use Plan, making them effective and enforceable by law.

B. Impacts on the detailed plans: regulatory plans and site plans

The City Master Land Use plan provides the statutory basis for implementing the low carbon mitigation and adaptation actions. Energy reduction, renewable energy supply and carbon emissions could be the key performance indicators to be incorporated in the Detailed Plans. Low carbon eco-cities are built upon the management of resources, energy efficiency and renewable energy supply. The zoning codes for the regulatory plans could be expanded to include specific planning parameters for a low carbon plan such as: green building standards, energy usage reduction, use of renewable energy sources, rainwater re-

cycling, storm water management best practice, waste management as well as water treatment and re-use.

CONCLUSIONS

Managing the challenges of rapid urbanization and the associated environmental impacts has compelled the Chinese central and local governments to explore the pathways for the planning and implementation of low carbon eco-cities. Although the concept of developing eco-cities in China dates back to the 1980s, it is only recently that the low carbon eco-city movement in China has taken off.

This review of the movement has identified several important and unique characteristics in China:

- a. The tremendous support through the release of new policies at the central government level to guide this movement and provide incentives, in support of the low carbon eco-city and green building development by the local municipalities
- b. The enthusiasm and responses by the local municipalities in setting up low carbon eco-city projects across the country and the gaining in momentum in the number of Green Buildings in China;
- c. The recent policy to incorporate low carbon eco-city planning parameters and Green Buildings as part of the statutory planning and development control system in China will have considerable implications. The planning governance and decision making processes at local municipal level will be enhanced and the statutory planning framework will be further refined both in terms of the scope of the planning matters as well as the process of on-going monitoring.
- d. The scale of the low carbon eco-cities both in terms of their physical land coverage and planned population are such that the impact of this movement will potentially be unprecedented in the history of human settlement

As a concluding remark to this article, it is noted that the vice minister of MOHURD has recently provided some directions on the future perform-

ance goals for low carbon ecological cities which are as follows (Ifeng, 2013):

- Adopt compact mixed use urban form
- Renewable energy utilization rate at minimum 20%
- Minimum 80% of all building certified as Green Buildings
- Maintain natural ecological biodiversity
- Green transport modal choices at minimum 65%
- Industry and carbon emissions reduced to 50% of other cities

With these levels of performance applied to the scale and speed of the urbanization process of Chinese cities over the next 20 years, the potential impact of this important policy initiative will no doubt be very significant. ■

Endnotes

1 The conference was held side by side with ISOCARP's first Congress in China with the theme "Urban Growth without Sprawl: A Way towards Sustainable Urbanization"

2 "Comments on Accelerating the Promotion and Implementation of Green Buildings in China" (Ministry of Finance and MOHURD, 2012) and "Low Carbon Ecological Demonstration Cities Application Requirements (Draft)" (MOHURD, 2011)

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THE BIG JUMP FORWARDS: AN EXAMPLE OF CHINA'S PURSUIT TOWARDS A NEW PATTERN OF GROWTH

Hongyang Wang · Martin Dubbeling





Shantou is a seaport with 5,4 million inhabitants in the province of Guangdong, People's Republic of China, and a Special Economic Zone since 1980. The five Special Economic Zones- Shenzhen, Zhuhai, Xiamen and Shantou cities and Hainan Province - represent the most progressive policy for reform and trade. In spite of this special status, Shantou, originally by far the biggest and most prosperous of the Special Economic Zone cities, has been struggling to match the rapid growth of the other four Special Economic Zones.

The Institute of Urban Planning and Design of Nanjing University and the Shantou Urban and Rural Planning Bureau have jointly written the Shantou Strategic Development Plan. This well-received new strategy, which followed extensive public consultation, creates a fresh solution based on the self-organizational character of the city, the people and its culture. It reveals and respects the indigenous fabric of local space, culture, society and economy that contributes to the transformation of Shantou into a 'Coastal Metropolitan Garden City'. On top of this, the strategy creates a new vision able to integrate desirable and often conflicting aspirations such as better and faster development. In Shantou, planning practice is being reshaped through new thinking and new planning approaches.

View over Shantou Bay

AUTHENTIC AND VIBRANT SHANTOU

Shantou was one of the first ports of China that in the early 20th century was opened for trade with European countries and the United States of America. The city of Shantou housed embassies from many trading countries. Historically, the inhabitants of the Shantou region, Chao-Shan-Jie region¹, in short the Chaoshan region, have an outward-looking character. At present, more than half of the estimated number of 30 million Chaoshanese live outside the region or abroad, particularly in Southeast Asia, Europe and the Americas, and have family ties with the home city. This means that the inhabitants of Shantou have an open-minded approach to new ideas and foreign influences. The Chaoshan region has three major cities; Chaozhou with 2,7 million inhabitants, Jieyang with 5,9 million inhabitants and Shantou with 5,4 million inhabitants.

Shantou is by Chinese standards not a very big city. The city has grown in the last decades like many other Chinese cities, but has not exploded like Shenzhen or Guangzhou. Most of the old town of Shantou is still intact. This means that Shantou's historical identity has not been swept away by modern apartment buildings. Although Shantou's main business is its harbour and the toy and textile industries, it is not a very dominant port or industrial city. There are plans for more than one CBD, but without a decent public transport system it is wishful thinking. Like every other Chinese city, Shantou has an urban planning exhibition centre with an enormous city model, a multimedia presentation, floors with more detailed models and an impressive wall display arising from contemporary urban planning competitions for several prime and future developments in Shantou.

Compared with other Chinese cities, Shantou is an authentic city. Comfortably situated on an enclosed bay and on the border of the subtropics and the tropics, Shantou has a natural setting and superb climate that matches resort cities in other parts of the world. The combination of three rivers, green hills, islands and wetlands provide Shantou with a highly interesting setting and scenery. Shantou is now at a crossroads, a point at which important decisions must be made. Instead of focussing on attracting more industries, Shantou

could focus on additional sectors such as tourism, high-tech agriculture and higher education. Moreover, it has the potential of becoming a healthy and attractive alternative to the heavily polluted cities in mainland China. This new identity could attract families and pensioners towards Shantou.

In many ways, Shantou is a complete and vibrant city. The busy Shantou Bay with its many ships sailing to and fro connects the present city with its past. The waterfront offers opportunities for both traditional shipping activities and leisure. The green hills opposite Shantou Bay connect the city with a natural park. The grid structure with broad boulevards has the capacity for a light rail network. Shantou has all the necessary elements to become an important 'Coastal Metropolitan Garden City' as is suggested in the Shantou Strategic Development Plan.

SHANTOU STRATEGIC DEVELOPMENT PLAN

The Shantou Strategic Development Plan and the successive and legislative Shantou Master Plan are the result of a strong international partnership. Teams from Nanjing University, assisted by teams with selected experts from China and abroad, participated in research studies and intensive planning workshops about the future of Shantou. The Urban Planning Institute of Nanjing University organised a three-day seminar at which the participants were invited to exchange and discuss the results of all the research and design studies. An open source seminar like this, and in the context of the preparation of a formal strategic spatial policy document, is quite unique in China.

Another unique element has been the intensive local public participation during the conceptual phase of the Strategic Development Plan. The City of Shantou spent several months in organising all kinds of participation with local officials, academics and cultural elites, entrepreneurs and common citizens. The participation process provided the teams with a better understanding of the local culture, economy and ecology. This process certainly ensured that the Strategic Development Plan was widely accepted and welcomed both by local authorities and by the citizens and entrepreneurs of Shantou.

For these efforts, the Shantou Urban and Rural Planning Bureau and the Institute of Urban Plan-

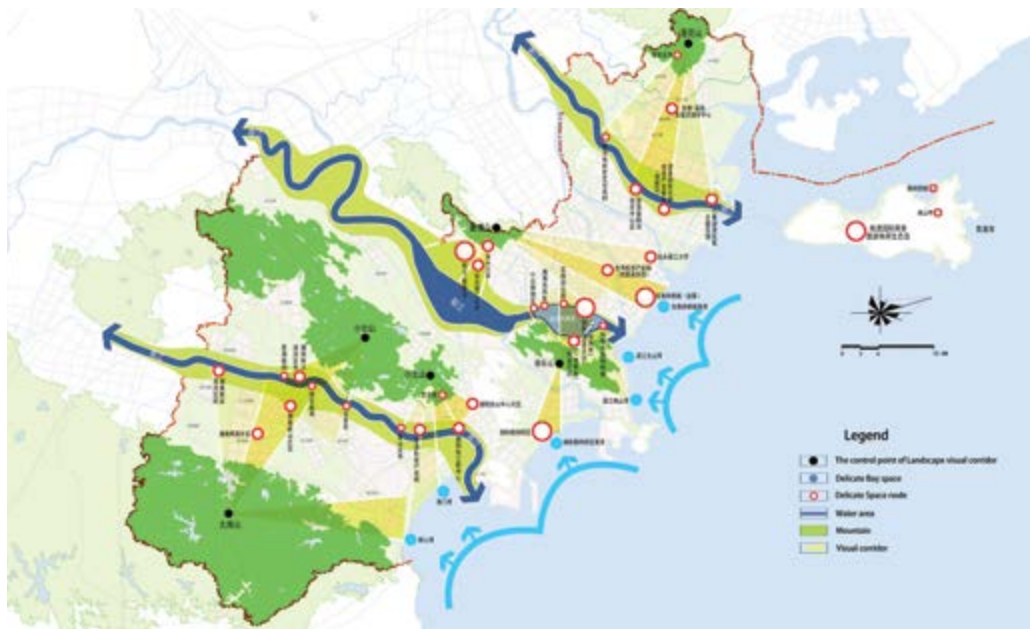


Figure 1: The general spatial structure of the Shantou Strategic Development Plan distinguishes seven development zones. The central zone contains the old centre and the new CBD

Figure 2: In the Shantou Strategic Development Planning rivers, wetlands and large green mountainous areas are kept free from urbanisation

ning and Design of Nanjing University were awarded the ISOCARP 2012 Award of Excellence. The integrated strategy and the focus on sustainability and organic transformation that supports the Shantou Strategic Development Plan will underpin the city's regeneration and economic development. Shantou's tradition, culture and current public sector is recognized as providing an opportunity to practice small spatial planning at an affordable cost and with minimum change in the existing situation, and for applying smart planning that enhances socio-economic and spatial development.

The Shantou Strategic Development Plan has an open eye for the past, present and future identity of Shantou. Shantou has a large, historic and unique centre and the city is surrounded by fabulous landscapes but it does not have a touristic infrastructure. It has broad avenues in a perfect grid but it lacks a modern tram system. It is

a harbour city without efficient connections with mainland China. It is an industrial and entrepreneurial city without an active creative class.

The industries of toys and textiles are concentrated north and south of Shantou respectively in extensive clusters of smaller and larger factories amongst scattered and rapidly diminishing plots of agricultural land. In many ways, Shantou is a prime example of the real China, rather than the modern China. The puzzle that the Shantou Strategic Development Plan has to solve is that many parts of Shantou are in urgent need of urban transformation and that the financial resources of the Shantou government to invest in these transformations are limited.

(clockwise from top left)

Figure 3: A ship undergoing repairs at Shantou Harbour

Figure 4: Locals enjoying leisure activities such as swimming and fishing

Figure 5: Promenade alongside the Shantou Bay

Figure 6: View over Shantou Bay



FAST FORWARD VS. STABLE ORGANIC GROWTH

The Shantou Strategic Development Plan marks a significant change in Chinese planning practice. Where other Chinese cities and regions stimulate a hyper dynamic urban development, the Strategic Development Plan, inspired by Shantou's tradition, culture and current public sector and governance, advocates an organic regeneration and organic urban development process for Shantou. This creates a playing field for spatial planning and socio-economic development that has a human scale and is effective at the same time. The Shantou Strategic Development Plan is also inspired by the new reform, new planning policies and a new form of urbanisation that is supported by the new Chinese central government. That new direction must lead to cities that are more in harmony with nature, respect cultural heritage and existing communities and are more sustainable than the present practice of urban development.

The Shantou region has a unique, rich and resilient culture that is quite different from cultures in other parts of China. Chaozhouhua, the language that is spoken in the Shantou region does not resemble Cantonese or Mandarin that is used in the more populated regions of China. The local culture is organised in extended families and family clans in and outside China and is focussed on self-organisation and running interrelated and independent family businesses rather than on individual development and fast and centralized mass industrialisation. This means that China's 'three golden decades of reform' of reform and the opening of the economy have had a different effect on the Shantou region than on the other four Special Economic Zones.

Realising that in the last few years the general socio-economic context in China has changed and that the Chinese 'standard model of modernisation' does not apply to Shantou, the strategic economic and spatial policy for Shantou requires an adjusted form of planning. Rather



Figure 7: Shantou cuisine served at street food stand

Figure 8: Downtown Shantou – mix of old and new buildings

Figure 9: Temple in downtown Shantou

Figure 10: Leisure activities in amusement park

than creating another Chinese megalopolis, the Shantou Strategic Development Plan proposes an organic and adaptable growing process around six key principles. Branding Shantou as the homeland of Chaoshanese culture and as an ecological 'Coastal Metropolitan Garden City' are the first two principles. Strengthening the Chaoshanese economy, domestically and abroad, and stimulating private and social investments, rather than relying on public and governmental investments, are the next two principles. The focus on small, short term, meaningful, influential and affordable interventions; and building reserves for larger, long-term and essential urban transformations are the last two principles.

Shantou is, like the other three cities that have the status of a Special Economic Zone, one of the south east coast harbour cities of China. Shantou lies in between Zhuhai and Shenzhen, situated 300 kilometres to the south of Shantou, and Xiamen, situated 400 kilometres to the north of Shantou. Three decades ago, before the start of the Special Economic Zone policy, Shantou was by far the largest and richest city. But now it is the least developed Special Economic Zone in many aspects, with a GDP per capita that is half of the provincial average, even a little below the national average. Given its advantageous location and resources as well as its political and economic status, Shantou had, and has the opportunity of going through the same hyper dynamic economic and urban development like Zhuhai, Shenzhen and Xiamen. However, Shantou stayed behind.

The very question that the Shantou Strategic Development Plan is addressing is how Shantou can benefit from this position, what it can learn from other cities and what are Shantou's specific strengths. Conveniently situated in the nearby hinterland of Hong Kong and Macau, Shenzhen and Zhuhai spectacularly grew from fishing villages into a megalopolis with over ten million inhabitants and into a successful industrial region for the world's largest companies. As a trading and industrial city, Xiamen cleverly astutely took advantage of the close cultural and economical ties with Taiwan attracting large domestic and foreign investments. Shantou, on the other hand, has no other choice than to rely on its own identity, authenticity, natural setting and unique local culture of self-organisation and overseas family ties.

NEW GROWTH, NEW THINKING, NEW FRONTIERS?

Traditional physical planning and urban form and design may need new thinking and new styles of planning practice to be effective. The planning history of Shantou in the last three decades may indicate that a city or a region with a specific character and culture may have other drivers of economic development and urbanisation than other cities or regions. Whereas the grand model and the dazzling multimedia presentation in the Shantou Urban Planning Exhibition Centre present a highly densely urbanised and populated agglomeration where every tiny bit of open and flat land is utilised, the Shantou Strategic Development Plan advocates the very opposite. In a country where in the next fifteen years, until 2030, houses and cities need to be built for another 45 million inhabitants² this is almost a provocation rather than a brave message³.

The preservation of delicate wetlands, recovering and reconstructing the watersheds of the three rivers in the Shantou region, transit-oriented transformation on a regional and local scale, the restoration and the rehabilitation of Shantou's historic city, certainly are not completely new topics for planning academics and planning professionals in China. The challenge for Chinese planning practice in general and especially for Shantou, is to enable and facilitate economic and demographic growth and to combine and integrate this growth with spatial quality, cultural heritage and sustainable urban development, in order to create a 'better city' and a 'better life'. This combined focus on growth and quality, also called 'New Growth', is now being tested in the planning of Shantou.

For a city like Shantou, valuing what already exists and what is essential for its cultural identity, investment and urban development, with a focus on improving the quality of infrastructure, cultural heritage, ecology, the environment and public transport, could be of strategic importance in the competition with other cities in China. It could attract inhabitants from inland cities who are looking for more healthy living conditions in an almost perfect climate and it could attract some of the 15 million Chaoshanese who live outside the region back to their roots and place of

origin. Finally, as domestic tourism is growing fast in China, it could also give a boost to the nearly absent tourist industry of Shantou.

Successful plans almost always involve successful community engagement. Shantou's new frontier in planning also lies in the attitude that Shantou prefers small, smart and meaningful actions above large scale blueprint master planning. Through the participation exercise it emerged that a gradual and systematic improvement and organic urban development has, in the long run, more quality and success than radical, rapid and speculation-driven urban development. This paradigm shift in planning stimulates a new way of thinking that, for Shantou, may lead towards an evolutionary rather than the revolutionary urban development process that has become common planning practice in Chinese cities.

SYNCHRONIC PLANNING

In April 2013 the Shantou Strategic Development Plan was evaluated during a three-day seminar at Nanjing University.⁴ More than 60 Chinese and foreign experts as well as Shantou officials met in the conference centre of the campus of the university and discussed the next steps. Out of the constant flow of presentations about disaster risk management, hyper density, social integration, demographic developments and mobility and transport emerged a clear picture about the present status of Shantou. Shantou has steadily developed into a middle-sized city but in the next decade important, decisive and synchronically planned steps should be taken on public transport, water management, cultural heritage, tourism and ecology. It is a gigantic and complex jigsaw puzzle in which all the pieces and layers need to fit together in order to become a comprehensive city.

One of the important and decisive planning steps is transport oriented transformation and there will be the subsequent introduction of Bus Rapid Transit to connect Shantou with the smaller settlements, a light rail or tram system to connect the various residential areas with the centre and sub-centres and a metro network that connects Shantou with Chaozhou, Jieyang, their combined airport and the high-speed railway network that crosses the Chaoshan region. Currently, an uncon-



Figure 11: The Regional and Transportation System as proposed by the Shantou Strategic Development Plan

Figure 12: The 'three way double strategy' for the Shan Nan Desakota Area, south of Shantou, as proposed by the team of Dutch experts

trolled and dangerous mixture of trucks, buses, cars, scooters and motorised tricycles causes daily chaos on the wide and flat avenues of Shantou. The introduction of public transport and dedicated lines for cyclists may lead to more civilized and efficient urban transport.

Shantou is a delta city on an inland bay that is connected to the sea. No less than three rivers and several creeks pass through it towards the bay and the sea. Shantou has a delicate relationship with the bay and these water bodies. Although the river deltas and the natural port are the home base for an extensive fishing industry and provide an opportunity for trade, transport as well as leisure, the urban water system and urban development need to be in balance. The Shantou Strategic Development Plan gives clear directions that the wetlands along the Shantou Bay and the estuaries of the rivers passing Shantou will be free of future urban activities. But there is much more to do. The canalized creeks and the water system in the urbanised areas are to be cleaned, rehabilitated, maintained and can be used for water storage.

DESIGNED IN SHANTOU

After the ISOCARP 2012 Award of Excellence, Shantou and ISOCARP, strengthened their relationship. An Urban Planning Advisory Team (UPAT) made up of nine international planning experts from ISOCARP worked for a week in Shantou and developed a comprehensive strategy for the regeneration of the historic city.⁵ For the occasional visitor, the historic centre evokes a mix of reactions. The first and instant reaction is the thrill of discovering and exploring a pure and authentic old city with a carefully designed urban fabric and facades with distinct early 20th century European influences. The city centre is almost untouched by development and modernization. It had been rebuilt in 1922 in a mix of European and Chinese styles after a typhoon had hit the city of Swatow, as it was called then. Potentially, the historic centre of Shantou has a golden opportunity of becoming a tourist attraction with boutique hotels, shops and restaurants.

The UPAT concept is a small example of organic planning. A small team meet on site for a week of creative and intensive analyses, planning and design; they leave when the job is finished.

The analyses and the design work in Shantou, in close communication with the Shantou Rural and Urban Planning Bureau, provided guidance for the elaboration of the Shantou Strategic Development Plan. The visiting design team emphasised that the old city of Shantou is a unique, authentic, charming and resilient old city with a rich heritage, wonderful buildings, a unique city pattern and a human scale. This could be used as an urban anchor for the whole city. The old city should be organically regenerated to enable it to regain its central urban role as the liveliest part of the city, with a unique charm and rich street life. The old city must have a balance of mixed uses, including residential, commerce, tourism, leisure, public functions and parks. This is a prerequisite to re-establish the ties between Chaoshanese people outside the Chaoshan region with their roots in Shantou.

A second example of organic planning that served the follow-up of the Shantou Strategic Development Plan is the 'three way double strategy' that a team of Dutch experts defined for the Shan Nan Desakota Area, south of Shantou.⁶ The Shan Nan Desakota Area has an area of some 600 km² and has some 1,3 million inhabitants. This area is rapidly changing from an originally agricultural use towards a mixture of small and larger industries and very high density housing. In the process of rapid urbanization and industrialization historic and useful structures, such as the water structures, were neglected and polluted. It is to be expected that another effect will be the disappearance of the present traditional and small-scale agriculture within a decade. The three way strategy implies that there are three major aspects. And the double strategy implies that each aspect has two closely connected parts. Thus, water oriented development is closely related to culturally oriented development. The improvement of the quality of urban and green spaces is closely related to transit-oriented development. And added economic value is closely related to added long term value and an increase in property values.

Figure 13: Proposals for revitalising the old city of Shantou, combining the traditional with the contemporary approach. Source: The ISOCARP UPAT Team 'Organic Regeneration of the Historic Down Town of Shantou', 2013

Proposal for the city centre



Proposal for recreating street life without cars





Figure 14: Image from the “New Reform, New Planning, New Urbanisation” Seminar at the Nanjing University, held during 4-7 April 2013. This seminar focused on the necessary paradigm shift of planning in the Chinese new reform epoch and on the way this shift of planning should be applied in the Shantou Master Plan

Figure 15: Proposal for revitalising the Queshi Bridge area at the waterfront of Shantou Bay near the historic town of Shantou. Source: The ISOCARP UPAT Team ‘Organic Regeneration of the Historic Down Town of Shantou’, 2013



THE BIG JUMP FORWARDS

The Shantou Strategic Development Plan and its follow up, the Shantou Master Plan that is now in the making may not mark the start of a process towards another Chinese megacity. It certainly marks a big jump towards new planning approaches. The engagement of communities and stakeholders in the planning process led to the realisation that the Chaoshan region, with its own language and culture that is distinct from other Chinese regions, needs a different and more delicate approach. Shantou is also an example where, for the improvement and transformation of the existing city and its infrastructure, synchronic planning is more appropriate than linear planning. Synchronic planning values the complexity and the potentially fast changes of the city. The city is an integrative framework and, when well coordinated in time and place, many small, organic and meaningful interventions can make a big difference. The complexity of the city also requires the planning stages of survey, analysis and design to be combined rather than to be made one after the other. In linear planning, the existing and pervasive planning paradigm, surveys and analysis of the planning area usually oversimplify the delicate, cultural and complex reality of the city that eventually leads towards cities that all look the same. Synchronic planning



practice in Shantou recognises the unique character and qualities of Shantou.

One of the most interesting innovations of the Shantou synchronic planning process is the 'Econurbation Strategy'. This is a framework where the ecological, physical, cultural and economic features of Shantou comprehensively come together in the new Shantou as a 'Coastal Metropolitan Garden City'. The coastal element is that the rivers, the bay and the shores of Shantou will form a continuous ecological network that connects the city with its natural environment. The garden element is to emphasise that natural elements, the hills, parks, green avenues with abundant trees and green residential areas will dominate the image of the city. The metropolitan element connects and matches Shantou with other metropolitan coastal cities in the world that have a very high density, a highly attractive and car free urban fabric with mixed functions and with high culture, and flourishing tourist and creative industries. ■

Endnotes

- 1 Chao-Shan-Jie Region is derived from the names of the three cities in this region: Chaozhou, Shantou and Jieyang.
- 2 http://en.wikipedia.org/wiki/Demographics_of_China.
- 3 45 million is a little less than the present population of Spain and more than twice the population of the states of New York or Florida.
- 4 New Reform, New Planning, New Urbanization. Planning Innovation for the New Reform Epoch, Taking Shantou as a Sample. ISOCARP (International Society of City and Regional Planners) and SFURP (NJU-UEPC Sino-French Centre for Urban, Regional and Planning Studies) Joint Seminar. 4-6 April 2013, Nanjing University.
- 5 The Shantou Urban Planning Advisory Team (UPAT) Workshop, Organic Regeneration of the Historic Downtown of Shantou, was hosted by the Shantou Rural and Urban Planning Bureau and the Institute of Urban Planning and Design of the Nanjing University and organised by ISOCARP, the International Society of City and Regional Planners, 10-16 March 2013. <http://www.isocarp.org/index.php?id=1217>.
- 6 The Team of Dutch Experts worked in Shantou 20-26 January 2013. The workshop with experts on water management, transport planning, urban design, landscaping, urban agriculture and architecture was hosted by the Shantou Rural and Urban Planning Bureau and the Institute of Urban Planning and Design of Nanjing University.

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Air view of central Brisbane.
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The Influence of Planning Standards
on the Long Term Sustainability
of Settlements: Evidence from Dar es Salaam

Wolfgang Scholz · Janepher Shedrack

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Cross Border Planning and Cooperation in A Trinational Agglomeration Area

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Urban Regeneration and Its Role in City Planning: Perspectives from Spain

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Canberra as an Exemplar of International Orientations in City and Regional Planning

Karl F. Fischer · James Weirick

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James Weirick is Professor of Landscape Architecture and Director, Urban Development & Design

Program, Faculty of the Built Environment, University of New South Wales. A graduate of Harvard University, Professor Weirick taught at the Boston Architectural Center, University of Massachusetts/Boston, University of Canberra and Royal Melbourne Institute of Technology, prior to his appointment to UNSW in 1991. In recent years, he has conducted international urban design studios in Beijing, Hangzhou, Tokyo, Nagoya, Venice and Berlin with the Graduate School of Landscape Architecture, Peking University; the Department of Architecture, Zhejiang University; the Graduate School of Frontier Sciences, The University of Tokyo; Nagoya University, Nagoya Institute of Technology, Sugiyama University, Nagoya; the Università IAUUV di Venezia; and the Technische Universität Berlin. His research interests include the history of architecture, landscape architecture and urbanism, with an emphasis on the 'politics of design', particularly the work of Walter Burley Griffin and Marion Mahony Griffin, the history of Canberra, and the urban landscape of Sydney. He is actively engaged in issues of contemporary urbanism throughout Australia as an educator, critic, and commentator.

Professor Weirick has served on the Environment Board of the Royal Australian Institute of Architects (NSW); the Parliamentary Zone Advisory Panel, National Capital Authority, Canberra; the Urban Design Advisory Committee, NSW Department of Urban Affairs & Planning; the Gateways Design Review Panel, City of Sydney; the Campus 2010 Design Review Panel, University of Sydney; and the Design Review Panel of the Sydney Olympic Park Authority. He currently serves on the UNSW Campus Design Advisory Panel, the Design Advisory Panel of the City of Sydney, and the Design Excellence Review Panel of the Barangaroo Delivery Authority. Professor Weirick has been a member of many design competition juries, most recently as a City of Sydney representative on the Design Excellence Competitions for redevelopment of the Carlton United Brewery site, Broadway; the Westfield Sydney Centrepont Project; the Goodsell Building Redevelopment, Chifley Square; and the UTS Faculty of Information Technology Building, Broadway. He received the President's Award of the Australian Institute of Landscape Architects (NSW Group) in 1999; and was named a 'Built Environment Exemplar' in the Year of the Built Environment 2004.

Investigating the Motivations, Rhetoric and Controversy Surrounding Recent Planning Reforms in New South Wales, Australia and Ontario, Canada

Laura Schatz · Awais Piracha

Laura Schatz is a Lecturer in Geography and Urban Studies. She originally joined UWS as a Postdoctoral Fellow in 2010, after completing her PhD in Urban Planning at the University of Waterloo in Ontario, Canada. Laura's dissertation analyzed and compared the different approaches to urban planning (one growth-oriented and one decline-oriented) in two "shrinking" communities: Sudbury, Ontario and Youngstown, Ohio. Prior to her PhD studies, Laura worked as a lawyer in Toronto, Canada. Her research interests include: urban governance in shrinking cities; unpacking the neoliberal turn in urban planning; comparative planning and environmental regulation; strategic planning processes and outcomes; and planning in resource (particularly mining) communities.

Dr Awais Piracha is a Sydney-based researcher of sustainable urban and regional development and the use of spatial analysis/techniques in land use and transport planning. He has been serving at University of Western Sydney as coordinator of the urban planning course since 2003. He previously served as a researcher with the United Nations University (UNU) in Tokyo, Asian Institute of Technology (AIT) Bangkok and University of Dortmund Germany. Dr Piracha was trained as a civil/environmental engineer as well as a town planner. He possesses excellent knowledge, skills and research experience in the areas of spatial analysis in planning and sustainable transport planning.

Auckland, New Zealand 2040:
A Resilient, Linear City-Region

Dushko Bogunovich

Dushko Bogunovich – Associate Professor of Urban Design, Departments of Architecture and landscape Architecture, Unitec Institute of Technology, Auckland, New Zealand. He holds degrees in architecture, city planning, geography and management. Twice awarded Fulbright Scholar-

ships, he is a member of ISOCARP, IFHP, the NZ Institute of Architects and the NZ Urban Design Forum. His professional career has included assignments with UNDP, UNEP, UNESCO and UN-Habitat. Currently he is working on major projects in Auckland and Christchurch (post-earthquake) and has commenced work on a book on the future of urbanism, arguing that the 21st century “will be more like a farm than a factory” ... and that urban sprawl can in fact be sustainable.

Planning In Oceania: The Case of Tonga

George Mal Horner

G.M. Horner is a Melbourne-based urban and regional planner working primarily in south-east Asia and the Pacific. He was the Project Team Leader for the EU-funded Nuku'alofa Structure Plan from 2010 to 2012.

Urban and social planning through public-private partnership: The case of the Bonnyrigg Living Communities Project, Sydney Australia

Dallas Rogers

Dr Dallas Rogers is an Australian Housing and Urban Research Institute (AHURI) Post-Doctorial Fellow with the University of Western Sydney's Urban Research Centre. He is an urban and housing studies academic with expertise in large-scale urban redevelopment. He has completed research projects on public and social housing for the NSW Department of Housing, NSW Land and Housing Corporation, Housing NSW, Fairfield City Council and non-government housing managers. He is a regular commentator on housing and urban policy and has appeared in local and international media, participated in a parliamentary briefing, is regularly invited to speak at industry and professional forums and frequently publishes on urban and housing matters in academic and industry journals. He is currently the Online Editor for Research Committee 43 (Housing and Built Environment) of the International Sociological Association. Dallas' current research interests focus on: (1) the intersection between

democracy, neoliberalism and large-scale urban redevelopment; and (2) housing production and consumption in the Asian century. For recent publications see:

<http://uws.academia.edu/DallasRogers>

Beautiful China: The Experience of Jiangsu's Rural Village Improvement Program

Fulong Wu · Lan Zhou

Fulong Wu is Bartlett Professor of Planning at University College London. His research includes China's urban development and planning and its social and sustainable challenges. He is co-editor of *Restructuring the Chinese City* (Routledge, 2005), *Marginalization in China* (Palgrave Macmillan, 2010), *International Perspectives on Suburbanization* (Palgrave Macmillan, 2011), and *Rural Migrants in Urban China* (Routledge, 2013), editor of *Globalization and the Chinese City* (Routledge, 2006), *China's Emerging Cities* (Routledge, 2007), and co-author of *Urban Development in Post-Reform China: State, Market, and Space* (Routledge, 2007), and *China's Urban Poverty* (Edward Elgar, 2010).

Lan Zhou is the director of Department of Construction. She is in charge of Village Improvement Program in Jiangsu province. She has published books on urban and rural development and is editor of *Compact Development: New Option for Urban and Rural Development in Jiangsu* (China Building Industry Press, 2010) and *Developing Liveable Homes: Perpetual Target of Jiangsu's Urban and Rural Construction* (China Building Industry Press, 2012).

Planning for Low Carbon Eco-cities in China – New Pathways

Stanley C. T. Yip

Dr. Stanley Yip is an experienced urban planner, land economist and urban designer with more than 25 years of professional and senior management experience around the world in Canada, Hong Kong and Southeast Asia. He lives in

Hong Kong and Shanghai. Dr. Yip is currently the Director, Planning & Development with Arup, an internationally acclaimed planning, design and engineering consulting group. He heads the planning and urban design practices of Arup in Mainland China. He has been leading a series of major low carbon urban development and eco-planning projects in China, providing innovative implementation advice to local governments. In addition to professional work, Dr. Yip also leads major research studies based in Peking University, in the areas of climate change, low carbon city planning, economics of eco-cities and green buildings, in association with the Ministry of Housing and Urban-Rural Development (MOHURD) as well as other prominent research institutes in China.

Dr Yip received his Master in Civic Design from the University of Liverpool and Doctor in Science from the Peking University. He is the Past President of the Hong Kong Institute of Planners. He served as policy advisor to Hong Kong SAR Government Central Policy Unit and sat on a number of advisory committees. In Mainland China, he has also served as Advisor to many local municipalities. He is appointed Honorary Adjunct Professor at the Chinese University of Hong Kong. Dr Yip contributes research papers regularly to leading professional and academic journals in China and receives invitations to speak at international conferences on low carbon cities and economy. He also authored important books on low carbon cities and green buildings in China including "Low Carbon Eco-Space: A Multi-disciplinary Planning Approach" (2011), "Low Carbon Green Buildings: From Policies to Economic Cost and Benefits" (2013) and "Study on the Economics of Green Buildings in China" (2013). He has led many planning projects that won reputable international planning awards including ISOCARP (International Society of City and Regional Planning) Award of Excellence in 2009, 2010; Hong Kong Green Building Awards (2008, 2010, 2012 Research and Planning), Hong Kong Institute of Planners Silver Award (2008, 2009, 2012), and well as the China Ministry of Housing Urban and Rural Development Huaxia Award of Construction 2011.

The Big Jump Forwards: An Example of China's Pursuit towards a New Pattern of Growth

Hongyang Wang · Martin Dubbeling

Hongyang Wang (BSc and MSc in planning and human geography, Nanjing and PhD in urban planning, Liverpool) is Professor of Urban Planning and Design in the School of Architecture and Urban Planning, Nanjing University, and co-director of the Sino-French Centre for Urban, Regional and Planning Studies by Nanjing University and University Paris-Est. He researches and teaches planning philosophy and methodology, comprehensive planning and critical reading of planning literature. He has been chair for preparing regional, strategic and master plans for more than ten major cities and regions/provinces in eastern, middle and western China with five to forty million population. Many of these plans were awarded with provincial, national and international planning prizes, including the 2012 ISOCARP Awards for Excellence.

Martin Dubbeling is an international urban planner and development consultant and registered as an urban planner and designer in the Netherlands. He is founder and principal of Connecting Cities, an office for research, consultancy, design and communication in sustainable urban and regional planning operating in an international network. He combines his work as independent consultant and urban planner and designer with organising Urban Planning Advisory Team (UPAT) Workshops for ISOCARP, the International Society of City and Regional Planners. As Vice President of ISOCARP he has organised successful UPAT workshops in Perm, Russia, and in Wuhan, Shantou and Nanjing, all in the People's Republic of China. In 2006 he was awarded with the ISOCARP Gerd Albers Award for his best-selling book 'Sustainable Urban Design, Perspectives and Examples'.



ISOCARP
REVIEW 09

The International Society of City and Regional Planners (ISOCARP) is a global association of experienced professional planners. It was founded in 1965 in a bid to bring together recognised and highly-qualified planners in an international network.

The ISOCARP network brings together individual and institutional members from more than 70 countries worldwide. As a non-governmental organisation ISOCARP is recognized by the UN, UNHCS and the Council of Europe. The Society also has a formal consultative status with UNESCO.

Although ISOCARP members work in many different fields they share a common interest in the spatial and environmental dimensions of urbanisation. They advise key decision-makers, proposing and supporting projects for intervention in a spatial context through general or specific actions.

The objectives of ISOCARP include the improvement of planning practice through the creation of a global and active network of practitioners. ISOCARP encourages the exchange of professional knowledge between planners, promotes the planning profession in all its forms, stimulates and improves planning research, training and education and enhances public awareness and understanding of major planning issues at a global level.

The association's main event is the annual World Congress, which focuses on a globally-significant planning theme and which takes place in a different country each year. Prior to the congress Young Planning Professional Workshops are organized. This YPP programme seeks to bring together emerging young planning professionals from all over the world to tackle 'real-world' planning projects. Smaller-scale events such as seminars and working groups are also organised.

All ISOCARP activities are covered in publications such as the ISOCARP Review, the International Manual of Planning Practice (IMPP), Congress proceedings and special project reports.

ISOCARP recognises excellence through the Society's Award programme.

ISOCARP Urban Planning Advisory teams (UPATs) assists sponsor organizations by offering the extensive experience and expertise of ISOCARP members to work on important local or international planning projects, programs and policy initiatives.

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