# From Urbocentrism to Hyperurbanism

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For the first time in their historicity human beings are on the eve of more people living in cities than beyond them.[1] This, however is a poor indicator of the actual hegemonic status of urbanisation. To better understand the situation, there is a need to realise that urbocentrism (the late modern concentration of power, resources, capital and culture in the city) is being displaced by the emergent, even more aggressive condition of hyperurbanism (existing concentrations combined with a newly invigorated and massively increased proliferation of the power of the urban beyond the space of the city).

Let's be a little clearer on how the meaning of hyperurbanism (a term that substitutes for a poetically descriptive word still absent from our available language) is being understood here.

Besides acknowledging the city's appropriative qualities, enormous material impacts, and that its power can no longer be regarded as contained within the space of the city, hyperurbanism recognises that the urban has become an extremely powerful designing idea, not just of the forms and spaces of built fabric everywhere, but equally of psychologies, cultural

dispositions and life-worlds that are *beyond* its visible boundaries. This means that the environmental impacts of the city can no longer be determined via the idea of it having a footprint (be this viewed locally, regionally or globally). It is now misleading to think of the city as geo-spatially discrete. While the notion of the hyperurban recognises Manuel Castells' concept of the 'network city' and his observation that the distinction between 'the space of places' has been in significant part dis*placed* by the 'space of flows', it does not reduce this to the agency to information technologies.[2] Biophysical materials, energy, power, culture, finance, people, ideas and information all flow (in varied urbocentric patterns) to constitute the meta-urban ecology named as the hyperurban.

How do we make sense of this situation, and what are the implications, not least for design and the future? In order to put ourselves in a position think what is still only a partly answerable question, we need to continue to circle around the notion of hyperurbanism.

Neither geography nor demographics, or for that matter urban sociology, have sufficiently revealed the continually expanding agency of the city over the past few centuries. In general terms, there has been an accumulation and interplay of power between capital and society via the agency of technology, whereby human and material resources are commanded, gathered and held as 'standing reserve'.[3] As such, everything, every being, is rendered available for instrumental use.

Effectively, absolutely nothing is now outside the reach of this power of appropriation – land, minerals, water, trees, plants, animals, labour, bodies and the whole genetic fabric of life – all these resources, and more, have been inducted into the service of the techno-cultural economy and the metabolic functioning of its primary locus – the urban. What is generally thought to constitute the non-urban has, de facto, become incorporated into this unrestrained gathering. It is now economically, culturally and psychically enmeshed in the hyperurban web.

Nothing obstructs this emergent phenomenon, its encroachment and outreach – yet this situation is not generally recognised by popular consciousness, and thus not named, let alone resisted. Supported by the full apparatus of the televisual, a pictorial semiotic 'world' appears to exist for most people within its transmitted radiance. In this 'world-as-picture' one finds 'bucolic and untamed nature', 'pre-modern Others', 'sublime vistas', and the like, all circulating within imaginations and bonded to cultural commodities as representational figures.

However, the violence of the technological gathering into the 'standing reserve' has meant that any 'organic' attachment to any authentic ground, any actual referent, has been broken. All this is not to say that, at a subliminal level, for many people the

loss is not emotionally felt, or recoiled from – beauty turns to sadness, what is viewed with wonder is tinged often with a sense of imminent demise, and the untrammelled becomes suddenly recognised as the abandoned.

Once the being of the world and the world of beings became a 'standing reserve' there was no turning back – the mirror was shattered. All we can see is a simulacrum of what once was, and its fragments. There is no choice but to manage the fragments, give them new value and care for them, as they are all we have left.

Various policies and models of planning have been mobilised in an attempt to contain or manage urban spatial, economic and cultural expansion. But history, contemporary analysis, prediction and the sheer weight of coming human numbers all indicate a failure to find the means to halt the urbocentric behemoth. The impetus of the process of urban expansion is clearly outstripping all attempts to manage it.

## An Essential Digression: The Language of Problems

Reason constantly misleads us – in our refusal and limited ability to grasp complexity, we isolate problems. In some respects this instrumental approach has served us well, yet it has also produced a fundamental problem that will always come back and haunt us. We are told 'nothing is without reason', which means that reason hermeneutically acts to make what cognition discerns sensible.[4] Of course reason's rational ordering, which has been at the core of the making of the modern world, is an inversion of this understanding. It inverts reason (as a created mode of thought projected upon worlds to *make* sense) and takes it to be a 'natural' feature of the world. Hereafter, what results is that reason becomes uncritically reified as that which simply 'is'. So, rather than it being the essence of thinking, reason becomes mobilised as an unreflective disposition of mind. Reason, so diminished, is at the core of those actions taken by human beings that negate futures – actions that 'defuture'.[5] Defuturing is thus embedded in unthinking named as 'reason'.

Reason is actually the ghost that haunts – 'we' are ruled by it – it guides our political institutions, education, economy and worldly interactions.

Unless 'we' re-learn reasoning, we will continue to be unable to think of the 'problem' of the (hyper)urban, and its plural impacts, within a relational matrix of complexity. This means we will continue to be deflected into dealing only with misconceptions, diversions or partial symptoms. To take just one example: the relation between global warming and heat islanding (the radiated heat from the thermal mass of the city). Obviously, techno-scientific inquiry can partly illuminate this problem, but that's all. To more adequately understand it and to eventually

arrive at solutions, one has to go beyond the functional elements and grasp overdetermining perceptual, behavioural, cultural and economic patterns.

## Perspectives

Currently, hyperurbanism does not yet exist as a fully articulated theory. Such a term and theory only has a value if it brings us to a more adequate understanding of the worlds and imperatives with which we have to deal.

Hyperurbanism transcends the social, economic and cultural differences between urban dwellers. As this it functions as a position of sight, speech, hearing and thought that directs how the city, the culture and economy it spawns (and the world beyond it) is comprehended. Hyperurbanism is both seeing and blindness, knowing and unknowing, a gathering of power and its dispersal. The agency of hyperurbanism does not reside in any single structure of power – power is mobilised in consolidated forms, layers and fragments. The power of hyperurbanism orders the allocation of financial, material, and cultural resources, while also designating the status of ideas. It is equally expressed in the audibility of those voices and images that influence and direct events in the public realm. It is not opposed by 'the rural', which has now become, like the suburban, merely a colonised region of urban extension.

The only Others of hyperurbanism are silent or silenced – these are fading positions without classifiable identity. They are the abject; traces, memories, the forgotten and tragically, in many instances, the terminal. Here we are talking of scattered people and peoples, mostly inhabiting cultures which are ethnocidally damaged. The values and belief systems of these cultures are, in covert and sometimes overt, ways designated as 'interesting' but inferior. Equally, indigenous cultural artefacts are decontextualised, then valorised so as to become marketable commodities. Although created as, for example, objects of cultural transmission, inscribing memory and narrative, they enter the marketplace as cashable 'art'. Buyers of these artefacts see them as pure visuality, as image, produced by 'the creative Other'. As a result, their meaning is rendered silent forever. For the sellers they are an income stream, and evidence of a devalued culture selling the only thing it has to sell – itself. This income, of course, is unable provide the wherewithal to reanimate the culture. Rather, sadly and frequently, it is used to anaesthetise the feeling of loss.[6]

The representational claim of an Other, in which the urban trades, is founded on a series of imaginary romanticised subjects and lingering mirages like 'the picturesque', 'rustic landscape', 'nature' and 'the environment' – all of which are urban-authored projections. They are not the product of an Other (the Others that exist, as said, are silent). What is not projected, and thus

not seen, are the organisational and operational structures of the urban beyond the city, like the numerous forms of industrialised agribusiness and associated technologies (or what would once have been called the extension of the capitalist mode of production into the countryside). A mass of detail equally remains out of view, like: typologies of vegetation; the complexity of soil structure and type; the vast array of agricultural chemicals that substitute for the loss of affordable labour and a rural workforce; the non-viability of most small farms; the world-view of indigenous peoples and so much more.

The language mobilised to connote difference evaporates it: the country, rural, bush, outback, wilderness are all romanticised spaces that while being celebrated are also reviled. Such fully colonised representations are managed from urbocentric institutions and are continually employed by primary industries, tourism, the culture industries, the property industry, the armed forces etc., to assist in the appropriation of the standing reserves.

None of these remarks discount the social and economic inequity that economically and culturally disadvantaged 'rural communities' experience, or the qualities of these communities. Likewise they do not overlook the differences in experience, organisation, divisions of labour and skills between city-based 'blue and white collar' workers and rural industry-based workers. The extraordinary level of multi-skilling of many farmers, for instance, evidences the temporal plurality of a postmodern economy (such multi-skilling was once common in the city); it is of another time, just as one can find a foundry worker in an urban car plant (which can be in 'the city or the country') working in 19th century conditions while next door is a futuristic fully robotic body pressing and welding plant. However, temporal and ontological differences do not negate the overarching power of corporate capitalism or the normative agency of the urban within urbo(de)centrality.

## Images of the Leviathan City

Although the urban is no longer bonded to the fabric of the city, it is still the case that urban form, culture and economy act as the primary figures of reference of the city's designing. So while hyperurbanism evidences the confluence of the material and immaterial forces that emanate from it, it is crucial that we do not to overlook transformations of the city's materiality.

Two proliferating quantitative city forms constitute the dominant models of influence: the mega and the medium. Within each, qualitatively enormous differences of city form exist – the cities can be service industry dominated, newly industrialised, be based around immaterial, light or heavy industry, be long established, have a mixed economy, centre on a mono-industry, have a culture

industry base or be totally without any stylistic pretensions, be multicultural or mono-cultural and so on.

Mega cities are de facto proto city-states and can be as large and powerful many nation states.[7] Yet the greatest global impacts currently come from the sheer rate of growth in the number of medium sized cities (these are cities with populations of one to five million people or more). Both types of city share characteristics with the previously dominant model – the 'world city'.[8]

'World cities' were developed out of those commodity-laden national capitals which emerged during the industrial revolution. They acted as the first major 'desiring machines' of modernity. These cities, in some instances, are now fusing with mega cities. They have been, and in many cases still are, (mis)perceived as offering work, wealth, goods and pleasure in excess. But this 'attractor' image was, and is, often totally at odds with the reality of many people's lives in these cities where underclasses earn paltry wages or are unemployed, live in sub-standard accommodation or are homeless. People thus find themselves among the waste of the city. Notwithstanding that this underclass is vast and growing, and in many mega cities, the power that drew them from life on the land not only continues unabated but is also intensified by hyperurbanism's ability to erase all other utopias. One should note here that utopian ideas like, for instance, the rural idyll, self-subsistence farming, and freedom by the campfire under the stars are largely projections of the culture the city, initially by art and literature, but now indivisible from the discourse of tourism.

The formation and agency of the utopian attractor power of hyperurbanism cannot of course be divided from the rise of the extraordinary designing power of the televisual in and outside the city. The power of the televisually framed pleasures of consumer culture, and the financial rewards of modern labour, permeates the life-world of people of both 'old' and increasingly in 'newly industrialising nations'.[9]

Not least because the unrestrained and technologically assisted appropriation of the standing reserve draws resources from everyplace and everybody, the material flows of mega cities have enormous impacts. Besides creating massive problems of liquid and solid waste, excess heat, high volume water use (and misuse), pollution and greenhouse gas emissions. they also present some extremely serious social problems as the divide between the rich and the poor increases, with the result that underclasses grow, this often from people whose skills have been cast aside, people who have abandoned the rural (for the promise of wealth from the city); environmental refugees (who we will comment on in a moment), and from the cultures of crime.

It is perhaps with looking at a couple of these problems in a little more detail.

## Problem 1: Hot Spots

Besides the encroachment of the city on its terrestrial surroundings and its capability of sucking ever more resources into its metabolism, one of its most significant, and growing, physical characteristics is its rising temperature due to 'heat islanding'.

Heat islanding is a phenomenon that has been known for over a century. It can be a problem for any city of reasonable size. Basically, it refers to the radiated heat coming from: (i) the exposure of the city's thermal mass, especially, brick, stone, concrete and asphaltic concrete (roads and reinforced concrete flat roofs being the most significant heat absorbers) to solar insolation; and (ii) exhausted heat from machinery, vehicles and HVAC (heating, ventilating and cooling) systems. This combination of the urban environment's materials and its technologies produces a significant temperature differential between the inner city, suburbs and surrounding rural areas, which can range between 2°C and 12°C (and is often at its most dramatic at night). While not just caused by global warming it is, and will increasingly be, worsened by it.

A viscious circle turns: the greater the thermal mass, the hotter the city gets; more air conditioning gets used; more energy is consumed; more heat is exhausted; more atmospheric emissions occur which increase global warming, with the result that the thermal mass of the city gets even hotter. Tokyo, still the largest city on the planet with a population now heading toward 36 million people, is perhaps the most extreme example of heat islanding. The average annual temperature of this mega-city is still rising, already the temperature constantly hovers above 40°C for three of its summer's months.[10]

Indirectly, heat islanding contributes to the impacts of global warming such as: loss of habitat and biodiversity; the rate of water evaporation; habitats becoming uninhabitable for some species of flora and fauna as temperature tolerance zones are exceeded (equally, the abundance and distribution of species is being altered, with extinction risks of vulnerable species constantly increasing[11]); the movement of vector carried diseases like malaria and dengue fever. More broadly, as the International Panel on Climate Change (IPCC) has acknowledged, the link between climate change and damage to human health has been generally underestimated; the global warming/heat-islanding combination is, and will be, implicated in higher levels of heat stress, heat related deaths, increases of allergen-producing organisms that can triggerer asmtha attacks. Heat islanding also creates conditions that favour an expansion of some pest populations.

It might sound like we know a good deal about the situation, but in truth very little is still known. Certainly, there are many cities where heat-islanding impacts will be wholly negative, but there will be others, in different temperature zones, where the consequences will be more ambiguous – for some there even may be local environmental benefits. However, everywhere will, at least for the foreseeable future, continue to produce emissions that worsen the global climatic situation. It is inevitable that these conditions will continue to deteriorate unless radical measures are taken. Certainly the notion of a 'technofix' is unrealistic – even the most optimistic projections of the uptake of renewable energy in the next 30 years do not exceed 15%, while zero emission carbon fuel technology is currently not available, and even if it were, it would be unaffordable by the world's fastest-growing energy generators (China and India). Additionally, even if the technology were in place within the near future, it should be remembered that it takes two hundred years, or more, for the 'the Earth's thermostat' – deep ocean temperature – to lower and for some of the greenhouse gases in the atmosphere to break down.

Realistically, the most appropriate course of action is a mixture of measures such as: the reduction of energy demands by creating a more parsimonious energy culture (technically and behaviourally); the reduction of GHG emissions by a mixture of technical and cultural measures (including the advancement of renewable energy technologies, far greater control of the carbon economy, more regulation of the full gamut of modes of fossil fuel consumption, and cultural leadership to alter lifestyles and travel habits); the development of 'natural resource management' to deliver large scale revegetation; and finally, the design of new structures (of an appropriately modest scale) to a conceptually advanced, very high standard of energy performance combined with the retrofitting of the existing built fabric (including a massive external insulation and shade program utilising vegetation as well as fabricated structures). What is not advocated are those extremely costly, massively complex and unproven carbon sequestration technologies aimed at maintaining the status quo and the structural position of the fossil fuel industry in the global economy.

Currently this message is still a whisper – and one that mostly falls on deaf ears. Without doubt, there are many architectural, engineering, urban design and cultural actions that could be explored and developed to address this relational problem.[12] Making this happen is a matter of political will at all levels of government and in every domain of cultural politics. Against this backdrop it is vital to understand that the extent of the impacts of global warming are not quantitatively fixed with empirical certainty, rather they are relative and directly linked to the degree to which actions are taken to constructively address them.

## Problem 2: Living the Climate

Climatic impacts on the city that negate its socio-economic functionality have occurred many times in the past. In recent times, this has happened in drought-ravaged powerless nations that are outside the televisual gaze of world media – especially in Central and Northeastern Africa . Moreover, as Brian Fagan has indicated, in his account of the rise and fall of the ancient city of Ur, there are already longstanding examples of climate change rendering cities uninhabitable.[13] This history can be expected to repeat itself.

But the current manifestation of climate change differs from all past occurrences. Present changes, in large part attributable to anthropocentrically-induced global warming, have been a relentless. They mark an escalating process, which has been unbroken from the moment agricultural societies formed over the past 8,000 years. Human activity has continually and accumulatively added to greenhouse gas emissions, unlike 'natural' extreme events such as volcanic eruptions which were followed by periods of remission, stabilisation and recovery. While evolutionary adaptation may have been initially possible while change was slow, since the birth of the industrial age, this has no longer been possible. From this time onward – with the rapid expansion of the human population, its productive capability and insatiable appetite for resources – the environmental-climatic impacts of human action have dramatically increased. The human population now in fact lives in a condition of ecological nemesis – a situation that is constantly misread by foregrounding 'environmental problems' rather than the human economic and cultural actions that underpin them.

Tragically, as indicated, hyperurbanism is prompting masses of people to leave the land. Thus the demands on agriculture increase while, in so many places, its ability to respond reduces. Added to these pressures on food production and the social fabric of rural settlements, is the problem of tbe environmental refugees being created as a result of global warming.

The International Red Cross have estimated that currently there are 25 million environmental refugees. This figure represents 58% of all refugees – it is thus more than all those people displaced by warfare or persecution.[14] The Intergovernmental Panel on Climate Change (IPCC), have calculated that by 2050 there will be 150 million environmental refugees – due mainly to the effects of coastal flooding, shoreline erosion and agricultural disruption. This will have greatest impact on the poorest countries, but will also unquestionably have global consequences. Future political problems associated with refugees will make those of the recent past pale into insignificance.

## Picturing the Country: Some Australian Problems

Notwithstanding the persistence of illusory visions of 'the natural environment' and the rhetoric of a good deal of the discourse of 'natural resource management', the economy, and much of the culture, of rural and outback Australia has little attachment to 'nature' (itself a construct largely framed by and lodged in the urban mind). The imagery of 'nature' as environment has very little agency among farming communities who are focussed on pragmatic concerns like the nature of soils, the quality of pasture, rainfall volumes, the growth rate of crops, pests, weeds and the health of animals. Such concerns, while well understood, are observed and engaged within the processes of agricultural systems. The landscape may be 'appreciated' differentially as 'good country', 'wild' or 'rubbish', but it is not seen within the aestheticised discourse of 'nature'. If this aesthetic arrives at all, it does so via the televisual or tourism, and is likely to be quickly displaced by functionalist perceptions of the standing reserve and related pragmatics of the everyday. Ironically, 'landcare' activities are often viewed as an urban, aesthetic imposition rather than a response to ecological dysfunction. Dominantly, farming communities view ecological dysfunction in functionalist terms, but with a tension between the land-use productivity (as it spans rural and urban economic interests) and the longer term functioning of biophysical systems.

One of the characteristics of the hyperurban is the way in which it overdetermines imaginations of both urban and non-urban cultures. The cultural and economic processes are uneven in their impacts, being most pervasive for young adults. Hard work, the vagaries of an often-harsh climate (including witnessing the suffering of both people and animals arising from all-too-frequent periods of drought),[15] modest financial rewards and the lack of availability of televisually presented urban pleasures – means that many, but not all, school leavers opt for a life and job in the city, or go to university and disappear into the culture and economy they discover. This demographic pattern obviously has a profound impact on the present and future viability of rural communities. While some do become 'returners', bringing back new knowledge, cultural capital and ideas, there are many, as intimated, who leave the land forever.[16] The agricultural economy thus becomes increasingly dependant on an ageing skill base.

Predominantly, urban demand will ensure the continuation of the industrialisation of rural production – livestock, cereals, horticulture, fruit and fibres. In sum, this industry is big; it is mostly run by large city based agribusiness corporations and is also technologically advanced. Farming is becoming a techno-science populated by specialised machines, industrially manufactured products, sophisticated materials, electronics, chemistry and telecommunication.[17] As with urban industry, agriculture has

increasingly replaced human labour power with technology. This has partly been due to the live labour cost/productivity ratio and partly because so many workers have abandoned the land for more lucrative employment in the city or rural based manufacturing.

While there are no doubt exceptions, traditional farming craft skills and intuitive knowledge are now largely marginal and, as comments above suggest, are no longer being inter-generationally transmitted. They are certainly no longer at the core of farming practice. Middle-sized farming has largely disappeared, while small farms now depend on 'off-farm' income (usually from the female partner), or are totally non-commercial hobby farms. At the other end of the scale, as already mentioned, are large scale agribusinesses such as broadacre grain and cotton growing or extensive sheep and cattle grazing. While urban dwellers may be aware of such facts of primary production in the abstract, these are not the images conjured up when "farm" is evoked. Instead, what springs to mind are totally outdated, storybook images of farmyards, barns, chickens, dairy herds, a farmer ploughing his field, summer breezes stirring fields of wheat and the like – tropes that have little in common with what actually happens on the land, yet continue to circulate through advertising, fiction, film, tourism and a variety of other popular and supposedly more sophisticated cultural forms. Absent from the urbocentric view of farming are images like: 50 metre wide booms spraying thousands of litres of herbicide on crops; irrigation pumping stations of a scale well beyond that of many municipal water supplies; flail pruners driving through orchards taking the tops out of 20 metre trees; giant GIS guided caterpillar tractors with air-conditioned cabins and headlights ploughing thousand-acre paddocks at night; feedlots for many thousands of cattle serviced by earth-moving equipment to deal with huge volumes of dung; and baits scattered over thousands of hectares to kill dingoes, wild dogs and foxes. Much of this applies even to small scale farming: one of the most common sights in many Australian country towns is that of a utility truck carrying a thousand litre spray tank.

Many of the crops produced, like cotton and rice, are fundamentally unsustainable in the fragile soils and fickle climate of Australia. They depend on massive amount of water from irrigation: a practice that is having disastrous ecological consequences. Notwithstanding the arguments of compromised scientific advisors, and the restricted vision of irrigation-based industries, the history of irrigation over the millennia indicates that it is always fated (not least when faced with a changing climate).[18]

Currently, the water taken by cities from rural catchments continually increases pro rata supply. Cities grow but the volume of available water does not. Of course catchments can

be increased, but this can so easily further deprive agriculture from its vital resource. Meanwhile, vast quantities of urban stormwater from Australia's largest seaboard cities are dumped into the sea – water which should be captured, treated, stored and used for non-potable needs, and thus make more water for agriculture available. In public debate about water use, modes of statistical presentation are often used to show that agricultural water use exceeds urban utilisation. The impression is given that there are two discrete systems, whereas they are actually directly connected. One only has to consider the fluid content embodied in food and fibres to correct this misconception. The higher volume of water utilised by agriculture is not for food and fibres simply to sustain rural people, but to meet the market demands of 'the urban masses'. Water used by agriculture could be amortised to the urban, rather than being totally assigned to agriculture (as if it were a bounded economy).

The question of fibre begs a little more comment, especially as cotton and wool production are major agricultural users of water in Australia.

Urban culture demands a continuous supply of 'natural fibres' like wool and cotton to serve the manufacture of a fashion driven clothing industry. There is a stark contrast between city and rural practical and symbolic relations to clothing. People of the city buy massively more clothes than they functionally need because 'appearance' has become so important to them and their culture (thus their wardrobes and drawers are stuffed with unworn, serviceable clothes); whereas functional clothing that gets worn until it wears out dominates rural life – of course people do dress-up for social occasions, and dress respectably when shopping, on holiday or engaged in business in the city: but clothing is not bonded to fashion to anywhere near the extent that it is within urban milieux.

Additionally, there is an underdeveloped perception of water being a 'natural resource.' Here urbocentric sight again comes into play. In the city many people regard rain as merely an inconvenience, whereas in rural environments, rain is one of life's major preoccupation and is viewed with enormous practical and almost spiritual significance.[19]

How the rural is viewed is fundamentally changing. It will increasingly do so. Unsustainable modes of land use are becoming more explicitly coded as such: clearing vegetation and thus exposing land to erosion and risk of salinity, as well as reducing habitats and thus putting more species at risk; destroying soil structure by over-cultivation; taking large quantities of water from rivers for irrigation, causing severe damage to acquatic systems; damaging biodiversity by using an enormous quantity of diverse chemicals; compacting soil by the use of heavy agricultural plant – these are just some examples. While some of

these problems are becoming politicised by urban environmental subcultures, 'solutions' can, and do, frequently get imposed without taking account of the knowledge of the people on 'the ground'.

Of course, these unsustainable rural practices are directly linked to the urban via the productivity demanded by 'market forces' – forces largely oblivious to the high cost of 'biophysical resources'.[20]

Australia is amongst the world's high-risk regions in terms of the impacts of climate change. Higher temperatures, reduced rainfall in many regions, more frequent extreme weather events (like hail storms, high winds and intense thunder storms). This situation demands an extensive, practical agenda of climate adaptive measures. There will be a need for: more windbreaks (fabricated and planted), more shade for livestock (to reduce heat stress); ponds and dams will increasingly need to be fitted with covers to reduce evaporation; crops and planting patterns will in some places have to be altered; massive native planting will be needed to remediate local climate post land clearing; the development of far more effective farming methods to retain soil moisture; the reduction of stocking rate on pasture exposed to lower rainfall and increased heat; and most difficult of all, some agricultural regions that are already climatically marginal, will have to be abandoned. Besides physical changes, the social fabric of farming communities will radical change. Hard work for modest wages in increasingly harsh conditions, in competition with say, service industry work in the city, will mean that even more young people will reject life on the land. Agricultural industrialisation, with its low labour requirement, means that this migration is not completely economically disastrous, however, this is not the case socially. The future of many farming communities is as much at risk from social atrophy as from climate change. It is true that some young people return to the land after a few years in the city, but not in sufficient numbers to make much of a difference.

Against this depressing picture, there are glimmers of hope.

For example, 'low impact' forms of agriculture such as organic farming are starting to break out of their 'alternative' enclave. Organically produced meat, produce and processed foods are becoming more common on supermarket shelves – niche markets are merging into the mainstream. Equally, more sustainable dry land farming practices that use less water and do less damage to soil structure are also becoming more widespread. Likewise, fertiliser companies are now seriously researching the mass production of organic, rather than synthetic, product. Increasingly, in privileged parts of the world, a relation is being re-establish between the quality of food, the manner of its production, the condition of the environment in which it is produced and the health of the animals or people who eat it.

Creating a sustainable ecology of food production, as population numbers grow and negative environmental impacts proliferate is, in the end, not an option, not a luxury, but a necessity. 'Sustainable agriculture' has to completely displace the unsustainable – unambigiously it is one of the main planks of sustainment.

Infrastructural differences between the urban and the rural invite comment.

The industrialisation of agriculture drives a claim to parity with the urban – roads, energy, water, sewerage, waste, telecommunications and so on. Here rather than a simple judgement of 'for or against' the real issue is where this is done, how and by whom. Certainly urban-based government, at all levels, has, at best only displayed a partial ability to comprehend what is appropriate.

There is a basic level of infrastructure required to establish economic and social function (although exactly what this is can be regarded as a matter of contestation). Conversely, beyond a certain and moderate level it starts to become counter-productive – the environmental, cultural, economic impacts are simply too high. The design of infrastructure beyond the city begs a far more critical inquiry, not least because of its impacts; it needs to be rescued from being a political expedient to ignore or pander too according the electoral games being played at any one time, and, unambiguously, should occur within the framework of 'rural planning' (an inchoate practice). It is not a matter of replicating urban infrastructure, but rather of having a far more coherent approach to what in *now* appropriate to the diversity of spaces outside the city.

Rather than being aesthetically romanticised, the indiscrete rural, while being elemental to the hyperurban, has to be understood as mirroring some of the inequalities of the city. It harbours communities that, unquestionably, are subjected to inferior services in areas like health and education – at the extreme this extends to the abject Other (Australia is yet to have a government able to fully comprehend and adequately engage the plight of its culturally and structurally exploited indigenous people). For 'sustainable agriculture' to rise and thrive, as it must; and for the level of environmental remediation that is needed to be realised, there has to be a far greater investment in 'social capital'. Likewise the question of redistributive justice must be confronted. For instance, the exchange of water between the city and the productive landscape has to be recognised, as has been indicated, as having a circular rather than polarised dynamic. Likewise, the aesthetic pleasure of landscapes, of wilderness, has to be paid for – the protection, management and enhancement of the full gamut of biophysical resources, and their appearance, has to be acknowledged culturally and economically. It has to be given a value and be paid for as a service. At the

same time, the rural landscape has to be liberated from the often-grasping hands of tourism. Finally the development of specific forms of 'cultural capital' are crucial – not least 'rural design' – knowledge and skills that can assist in the sustainment of the land and all its human and non-human inhabitants must be conserved and increased.

Hyperurbanism may well now be a 'fact of life', it cannot simply be wished away, physically or politically displaced, but it can and must be critically and constructively engaged. Without doubt there is a chasm between our ability to name problems, then understand and respond to them. Confronting this situation is not merely an intellectual challenge, it does not just depend on more research, for it also requires the imagination to see things as they might be otherwise – this includes embracing and expanding the practice and role of design – and it also needs a politics able to create political will to confront the hard questions and tough problems that are not being confronted.

One cannot but conclude that we find ourselves before hyperurbanism as an overwhelming contradiction – the urban has always been a contradictory space and culture of human sustainment, so often the well being of the One has been at the cost of an Other. Now its dialectical character has reached a condition of extreme amplification – maybe even its zenith. The urban's perpetual expansion is at the cost of what it most depends upon – the biophysical integrity of the standing reserve. Overawed by the monstrous task of confronting and dealing with this 'problem' one can retreat into the sheltered workshop of one's immediate pragmatic or deflectory preoccupations, institution, hobbies or domestic comfort zone and ignore it, hoping that someone else will get stuck in, or that it will turn out to be an inflated crisis of hysterics and simply go away. Conversely one can embrace the essential subversion of the defuturing status quo, and opt for the alienation and angst of living an unrewarded creative life that confronts the vital first step of trying to understand the problem that one would wish to help solve. Contrary to critical brickbats this is neither a life on the moral high ground nor one of a theological calling; rather it is simply that one cannot *not care* for what cares for 'our being now', and in the immediate and distant future. One cannot be without care as a fundamental ontological condition, thus to negate care is to forgo the 'right' to be.

*Norfolk Island is an external territory of Australia, in the south-western Pacific Ocean, 1,676 km northeast of Sydney. The island, with an area of 35 square km, has a population of 2,000 plus, which includes the descendants of mutineers from the HMS Bounty who were transferred from Pitcairn Island in 1856. There are also descendants of later settlers, mostly from Australia and New Zealand. Since the mid-1960s the major economic activity of Norfolk Island has been tourism (about*

*30,000–40,000 visitors arrive each year). In 2002 the island experienced its first murder, a female tourist was killed and to date nobody has been charged with the crime. In July 2004 the second murder happened. This time a local political identity was shot by his 25-year-old son (who is now in custody). The local newspaper editor was interviewed on the radio the day after the second murder. He was asked why he thought these two events had happened. His answer was "because the urban had arrived".*

## Acknowledgments

## Notes

1. The United Nations announced in March 2004 that 2007 will be the year when this will occur.
2. See the 'Space of Flows' in Manuel Castells *The Rise of the Network Society* London: Blackwell, 1996, pp 376–428.
3. For a more adequate exposition of 'standing reserve' (*Bestand*) see Martin Heidegger's essay 'The Question Concerning Technology' in *The Question Concerning Technology and Other Essays William* Lovitt (trans) New York: Harper Row, pp 3–49, 1977.
4. That 'nothing is without reason' is the 'vulgar expression' of the *principium rationis* – the principle of reason – formulated by Leibniz in the 17th century.
5. This concept is examined at length in Tony Fry *A New Design Philosophy: An Introduction to Defuturing* Sydney: UNSW Press, 1999.
6. This argument has been developed elsewhere at length – see Tony Fry and Anne Marie Willis 'Art as Ethnocide: The Case of Australia' *Third Text* No.5 London, Winter issue 1988/89. Reprinted in the *Third Text Reader on Art, Culture and Theory*; Ziauddin Sarder et al (eds) London: Continuum Publishing, 2002.
7. There are now almost thirty mega cities – those with populations of between fifteen and thirty five million people. 'Medium sized' cities are defined as cities with populations of 1 to 5 million people.
8. See Peter Hall *The World Cities* London: Weidenfeld and Nicolson, 1966.
9. The televisual is not simple television but the imaginary the medium has brought into being and the sum of all electronic visual technologies – see Tony Fry (ed) *RUATV? Heidegger and the Televisual* Sydney: Power Publications, 1993.

10. Richard Betts of the UK Metrological Office, Hadley Centre for Climate Prediction, has pointed out the cities currently release an average of 20 watts of heat per square metre and this can be expected to rise to 60 watts in the future. Editorial, 'Cities will swelter on summer nights' *New Scientists* 20 June 2004.

11. Chris D Thomas et al 'Extinction risk from climate change' *Nature* 427, 145–148 (8 January, 2004).

12. Besides taking the agenda of greenhouse gas emissions reduction far more seriously, besides creating an energy demand reduction culture and using HVAC technology to deal with badly designed buildings, the nature of new development and the form of buildings has to change. External insulation of thermal mass has to be a major element of façade design; buildings have to be situated in (and themselves be) designed and managed as external micro-climates that afford habitat and transitory shelter for animals. Likewise, the use of current paving materials and how and where grass is used has to alter. The amount of shade in cities has to dramatically increase. Street trees, awnings, structural fabric covering pedestrianised streets, shade structures and the like all beg large-scale introduction. Likewise, urban forests warrant a special mention. As an indication of just how significant trees in cities can be, consider that over the past 35 years the city of Atlanta has reduced its canopy cover by 65 percent, which has been claimed to have resulted in an average temperature rise of 5°C (Terry Mock 'Building a Sustainable Urban Forest' *Land Development Today* (USA) Vol 2, Issue 5, May 2003). Additionally, trees perform a major role in stormwater management, and as such have a direct relation to the efficacy of stormwater infrastructure. The way the city deals with its waste and storm water equally demands transformation. There is already a major imperative to detain, retain and treat this water and use it for non-potable applications, including sustaining much larger volumes of vegetation able to tolerate and remediate the ecological fabric of the urban environment. How to create and employ local climate modifying micro-environments is one areas begging research and practical application. The concept of wildlife corridors is a limited idea that begs to be massively developed as 'biophysical network structures'. Unless those animals that need to retreat to cooler and higher environments in and beyond the city in order to survive are given the means to do so, ecological dysfunction will increase.

13. Ur is halfway between Baghdad and the head of the Persian Gulf and just west of the Euphrates. It was one of the great cities of the ancient world, with a history that extends well over 5,000 years. The Lords of Ur, 2000 years before the

birth of Christ were rulers whose power was only rivalled by the Egyptian pharaohs. During the course of Ur's rise and fall there it moved from being a fertile agricultural centre with a highly developed irrigation system, to a drought devastated environment, culture and economy. This disaster occurred despite massive modifications to the irrigation system to enable the agricultural based economy and culture to survive several major changes in climate and volcanic activity. See Brian Fagan *The Long Summer* New York: Basic Books, 2–7, 2004.

14. International Red Cross Federation, 'World disasters Report 1999' Switzerland, June 1999. These International Red Cross estimates are supported by World Bank figures.

15. The task of shooting sometimes thousand of cattle or sheep, because there is nothing for them to eat and not sufficient money to buy feed, leaves psychological scars that often remain for a lifetime. While farm animals are frequently viewed as 'economic units' they can also represent a very considerable emotional investment, especially if, for instance, many years have been spent building up a herd.

16. While these comments are based on well-reported analysis (in both the general and agricultural press in Australia), they also reflect my own experience. Forty years separate my own departure from and return to the land.

17. This is evident in activies like: GIS guided machinery employed in 'precision farming'; lifetime electronic tagging and monitoring systems for livestock; mechanical tree planting; soil moisture monitoring and computer regulated irrigation; the employment of genetic analysis in horticulture and animal husbandry.

18. Sandra Postel *Pillars of Sand* New York: W. W. Norton, 1999.

19. This difference was made very apparent when, some months ago, an inexperienced Weather Bureau spokesperson speaking for the first time on the southern Queensland rural radio network of the national broadcaster, stated that there would be "no rain to spoil the coming weekend"; she was later taken to task and the next day an apology was issued to listeners (who were longing for news of rain after many seasons of drought).

20. 'Biophysical resources' is a term used in preference to 'natural resources' – it acknowledges the now indivisible relation between 'the natural and the artificial.'