# ANZAPS

**A**ustralian and **N**ew **Z**ealand
**A**ssociation of **P**lanning **S**chools

**&**


## ANZAPS/GPEAN 2005

## *PLANNING EDUCATION & SUSTAINABILITY: SUSTAINING PLANNING EDUCATION*

Conference Proceedings

UniSA

**University of South Australia**

# 30 September-2 October 2005

**ANZAPS/GPEAN 2005**
**University of South Australia**

***Planning Education & Sustainability: Sustaining Planning Education***

**Friday 30th September, 2005**
**Playford Building (Conference Room P7-32)**

**GPEAN ROUNDTABLE (Day 1)**
**(P7-32)**
(8.30-17.00)

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**Tea/Coffee**
8.30-9.00

**Session 1**
9.00-11.00

**Tea/Coffee**
11.00-11.15

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**Session 2**
11.15-13.00

**Lunch (Rundle St)**
13.00-14.00

**Session 3**
14.00-15.30

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Tea/Coffee
15.30-15.45

**Session 4**
**15.45-17.30**

**ANZAPS/GPEAN 2005**
**University of South Australia**

***Planning Education & Sustainability: Sustaining Planning Education***

**Saturday 1st October, 2005**
**Playford Building (Conference Room P7-27)**

**Tea/Coffee**
8.30-9.00

**Official Welcome & Opening**
**Steve Hamnett & Paul Maginn**
(9.00-9.10)

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**Session 1: 9.15-11.00**

Michael Gunder
(University of Auckland, NZ)
***After the Post-Modern Abyss:***
***Is the Discourse of Sustainability Really Planning's Saving Grace?***
(9.15-9.50)

Geraldo Magela Costa
(Federal University of Minas Gerais, Brazil)
***Comprehensiveness, Trans-Disciplinarity and Sustainability in Urban Analysis and Planning: Some Considerations on the Brazilian Case***
(9.50-10.25)

Garth Klein
(University of the Witwatersrand, SA)
***The Realrationalität of Curriculum Development within Planning in South Africa***
(10.25-11.00)

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**Tea/Coffee**
11.00-11.15

**ANZAPS/GPEAN 2005**
**University of South Australia**

***Planning Education & Sustainability: Sustaining Planning Education***

**Saturday 1st October, 2005**
**Playford Building (Conference Room P7-27)**

**Session 2: 11.20-13.05**

Susan Thompson
(UNSW)
***Sustainable Planning:***
***Sustaining Communities and Practitioners***
(11.20-11.55)

Heloisa Soares de Moura COSTA
(Federal University of Minas Gerais, Brazil)
***Towards a Political Ecology of Urbanization:***
***Comments from a Brazilian Experience***
(11.55-12.30)

Sevanaia Dakaica
(University of the South Pacific)
***The Challenges of Education Sustainability of Small Island Developing Countries of the South Pacific: A Case Study of the University of the South Pacific***
(12.30-13.05)

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**Lunch**
(13.05-13.50)

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**Session 3: 13.50-15.30**

Claire Freeman (Uni Otago, NZ)
***Is Sustainability An Appropriate Focus For Planning Education?***
(13.50-14.25)

Roberto Rodríguez-Garza, (Universidad Simón Bolívar, Caracas, Venezuela)
***Curricula in Planning Schools in Latin America and Sustainability***
(14.25-15.00)

Smart N. Uchegbu (University of Nigeria)
***How Planning School Curricular has been Adapted (Used) in Recent Years to Meet the Imperatives of Planning for More Sustainable Settlement and Societies***

(15.00-15.35)

**ANZAPS/GPEAN 2005**
**University of South Australia**

***Planning Education & Sustainability: Sustaining Planning Education***

**Saturday 1st October, 2005**
**Location: Playford Building (Room P7-27)**

**Tea/Coffee**
(15.35-15.50)

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**Session 4: 15.50-17.00**

Ed. Blakely, John Dee & Rafael Pizarro (University of Sydney)
***Impacts of Climate Change on the Planning of Australian Cities***
(15.50-16.25)

Bruce Stiftel (Florida State University, USA)
***Multiple Objectives in Planning School Performance Measurement: Can the Diversity of Planners' Scholarship be Usefully Assessed at the National Level?***
(16.25-17.00)

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**Session 5: 17.00-17.30**

***Open Q & A Session***

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**Session 6: 19.00-22.30**

**ANZAPS Dinner**

***Venue TBC***

**ANZAPS/GPEAN 2005**
**University of South Australia**

***Planning Education & Sustainability: Sustaining Planning Education***

**Sunday 2nd October, 2005**
**Location: Playford Building (Room P7-27)**

**Tea/Coffee**
(8.45-9.00)

**Report on Developments at ANZAPS Schools**
**Chair: Steve Hamnett**
(9.00-10.00)

**PIA/NZPI Session**

**Michael Gunder (NZPI) &**
**Liz de Chastel (PIA)**
(10.00-11.00)

**Tea/Coffee**
(11.00-11.15)

**World Planning Schools Congress Update**

**Chair: Michael Gunder**
(11.15-12.00)

**GPEAN Issues**

**Chair: Angus Witherby**
(12.00-12.45)

**ANZAPS/GPEAN 2005**
**University of South Australia**

***Planning Education & Sustainability: Sustaining Planning Education***

**Sunday 2nd October, 2005**
**Location: Playford Building (Room P7-27 and P7-32)**

**Close of ANZAPS**
(12-45-13.00)

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**Lunch**
(Rundle St)
(13.00-)

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**GPEAN ROUNDTABLE (Day 2)**
**(P7-32)**

(14.00-17.00)

**ANZAPS/GPEAN 2005**
**University of South Australia**

***Planning Education & Sustainability: Sustaining Planning Education***

**Monday 3rd October, 2005**
**Location: Playford Building (P7-32)**

**GPEAN Roundtable (Day 3)**
**(P7-32)**
(9.00-13.00)

# List of Delegates

| Name | University/Organisation |
|---|---|
| Alain Motte | Universite d'Aix-Marseille III |
| Alan March | RMIT University |
| Angus Witherby | GPEAN |
| Arch Do Hau | Hanoi Architectural University (Vietnam) |
| Arron Broom | PIA (SA) |
| Barbara Koth | University of South Australia |
| Bonney Corbin | PIA (SA) |
| Bruce Stifltel | Florida State University |
| Claire Freeman | University of Otago |
| Ed Blakely | University of Sydney |
| Garry Middle | Curtin University of Technology |
| Garth Klein | University of Witwatersand (South Africa) |
| Geraldo Magela Costa | Federal University of Minas Gerais (Brazil) |
| Glen Searle | University Technology of Sydney |
| Hans Mastop | Radboud University Nijmegen (Netherlands) |
| Heloisa Soares de Moura Costa | Federal University of Minas Gerais (Brazil) |
| John Minnery | University of Queensland |
| Jon Kellett | University of South Australia |

| | |
|---|---|
| Kirsty Kelly | PIA (SA) |
| Liz De Chastel | PIA (National) |
| Matthew Rofe | University of Adelaide |
| Michael Gunder | University of Auckland |
| Moncef Ben Slimae | National School of Architecture and Urbanism (Tunisia) |
| Paul Maginn | University of South Australia |
| Rafael Pizarro | University of Sydney |
| Roberto Rodriguez-Garza | Universidad Simón Bolívar (Venezuela) |
| Robin Goodman | RMIT University |
| Sada Karrupannan | University of South Australia |
| Sevanaia Dakaica | University of the South Pacific (Fiji) |
| Smart Uchegbu | University of Nigeria |
| Stephen Darley | University of South Australia |
| Stephen Jennings | Curtin University of Technology |
| Steve Hamnett | University of South Australia |
| Susan Thompson | University of New South Wales |
| Valerie Kupke | University of South Australia |

# After the Post-Modern Abyss: Is the Discourse of Sustainability Planning's Saving Grace or Road to Perdition?

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# After the Post-Modern Abyss: Is the Discourse of Sustainability Planning's Saving Grace or Road to Perdition?

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**Abstract:**

The legitimation of planning as a mechanism providing rational societal guidance and coordination between the economic and social spheres, particularly for human settlements, became increasingly under challenge with the decline of the welfare state, a loss of faith in instrumental rationality and the rise of neo-liberalism and the market. This displacement of planning's traditional purpose and role has subsequently been recovered via the discipline's response to the increasing emphasis being focused on the importance of the quality of the environment. This has given rise to a new transcendent ideal: that of sustainability.

This paper will explore the rise of this master signifier – sustainability – as a codified set of discourses and practices which has come to occupy this central place as the organising principle of planning's new discursive field. Drawing on Lacan and Foucaultian genealogy, the paper will critically argue from a Deleuzian perspective that 'sustainability' is an ideology that stifles the potential for substantive social change. Rather than encouraging opportunities for immanence that may produce new potentials for our settlements and societies, it seeks to simply striate a new space of planning practices, discipline, control and regulation. This is via a territorialisation of the built environment that seeks to limit or constrain alternative opportunities and directions for social action that are contra to the ideological dogmas of sustainability.

All of which constitutes new purpose and legitimacy and, above all, authority for the discipline of planning and its practitioners while potentially sustaining existing social and environmental injustices, if not also creating new iniquities. These are injustices that planning traditionally attempted to address but now obscures under discourses and resultant imperatives of sustainability.

**Key Words:** sustainability, regulation, legitimacy, ideology, injustice

## Introduction

> **In search of a new "vision" for planning…** many commentators believe that there is a need for a new vision, one which can "reach out to society as a whole, addressing its wants, needs and insecurities", a "vision to rank with those of Ebenezer Howard a century ago". There is a consensus that such a vision can now emerge from what has come to be called sustainability. (Davoudi, 2000, p.127)

During the latter part of the twentieth century the legitimation and value of planning as an essential mechanism of government providing rational societal guidance, management and coordination between the economic and social spheres for the common good, especially for the built environment, became increasingly under challenge (Beauregard, 1989; Dear, 1986; Friedmann, 1987). This was attributable to a range of interrelated factors. One fundamental reason was the decline of the welfare state's perceived ability to deliver public goods and the rise of neo-liberal values, market deregulation and public choice theory in its place (Allmendinger, 2001; Gleeson, 2001; Troy, 2000; Sanyal, 2005). Factors compounding this included a loss of faith in planning expertise and the perceived effectiveness of instrumental rationality to deal with emerging societal concerns, particularly those pertaining to race, gender and the environment (Beauregard, 1991; Berke, 2002; Gunder, 2003a; Marcuse, 2000). These concerns were further complicated by issues of urban decline and fiscal insolvency in many first world cities that eventually gave rise to the domination of market-lead values of competition and globalisation as the only 'game in town' (Gunder, 2005a; Jessop, 2000; McGuirk, 2004). Levy (1992, p.81) writing over a decade ago, attributed the loss of planning's central coordinating role to a loss of planning's 'guiding principle or central paradigm' of master planning for the public good 'and nothing has come along to replace it.'

Yet, even as Levy was documenting this lament, new guiding principles were emerging for planning practitioners and academics (Gunder, 2004, p.303). In particular, for many, the displacement of planning's traditional purpose and role has subsequently been recovered via the discipline's response to the increasing emphasis being focused on the importance of the quality of the environment in many planning related discourses (Davoudi, 2000; Gleeson *et al*, 2004; Healey and Shaw; 1994; Jepson, 2001; Murdoch, 2004; Wheeler, 2000). In retort to its loss of initial expert

purpose in the name of the public good, in the face of emerging environmental issues and in place of its traditional role of attempting to provide social justice across classes; planning and its related disciplines sought to develop new discourses and practices of environmental management. This gave rise to a new transcendental ideal: that of sustainability.

This paper will explore the rise of this master signifier – sustainability – as a codified set of diverse discourses and practices which has come to occupy this central place as the organising principle of one of planning's most important new discursive fields[1]. Drawing on Lacan and, to some degree, Foucaultian techniques of genealogy, the paper will critically argue from a Deleuzian perspective that 'sustainability' has been largely deployed, particularly under the label of 'sustainable development', as an ideology that maintains the status quo of class inequalities and stifles the potential for new social 'becomings'.

Rather than encouraging opportunities for immanence that may produce new positive potentials for our settlements and societies, planning's deployment of the sustainability imperative largely seeks to simply striate a new space of planning practice, discipline, control and regulation. This is via a territorialisation of the built environment that seeks to limit, or constrain, alternative opportunities and directions for social action that are contra to the ideological dogmas of sustainability and its proponents. All of which constitutes new purpose and legitimacy and, above all, authority for the discipline of planning and its practitioners while potentially sustaining existing social and environmental injustices, not to mention inducing new forms of social disparity. These are injustices that are ultimately attributable to society's dominate cultural imperative of the market place driven by discourses, not only of sustainability, but also of capitalist competition and globalisation (Gunder, 2005a). Yet, the sustainability constraint acts as a mechanism to obscure and subsume these issues under the imperative to sustain the environment, which in itself, few, if any, would wish to argue against. Further, these are now largely overlooked injustices that planning traditionally attempted to overtly address as important issues of the urban problematic. Planning has marginalised its role of serving today's 'public good' in turn for serving the ability of the environment to continue to sustain wealth

[1] Other new fields also include 'new urbanism', 'multiculturalism', 'smart growth', 'communicative planning', although this listing is not comprehensive (Gunder, 2004, p.303).

accumulation ‘for future generations’, regardless of the social cost that this may induce.

This paper will examine the concept of sustainability as a signifier of identification and belief. It will begin by tracing its rise to prominence in planning education and its emergence as a dominant planning theme. The implication of this emerging *doxa* will be explored and argued to be pernicious to social justice. This is of particular concern where diverse socio-economic and environmental issues are constituted under one mantel of a triple, or quadruple, bottom line of accounting constituting an all-embracing ‘sustainability’ rubric that purports to include consideration of the social good. This combination of characteristics is often operationalised under the catchall of ‘sustainable development’ (Naess, 2001). The paper will conclude that while attention to ecological sustainability is crucial for continued human survival, issues of social justice, human creativity and economic wellbeing cannot be subsumed as merely a quantified subset of the sustainability signifier.

**The Rise of Sustainability in Planning Education**

Gunder and Fookes (1997a, 1997b) reporting less than a decade ago on the content of Australasian planning school programmes did not use the signifier ‘sustainability’ at all. Their work found that, on average in 1995, accredited planning school curriculum had focused less than five percent of their total programmes on environmentally related planning issues. Over a quarter of all programmes had no formal environmental orientated papers; at most, one programme had 12 percent of overall course content focused on environmental issues. In contrast, all programmes had components concerned with social and economic issues averaging 12 percent of program content with one program devoting 31 percent of its content to these issues.

While ecological and environmental issues were undoubtedly addressed in most, if not all, planning programmes at the time of Gunder and Fookes’ study, these issued lacked a focal point of attention necessary to shape them as a specific field of prominent concern within planning education. The concept of sustainability, while articulated in the literature (Jacobs, 1991; Healey and Shaw, 1994; Orr, 1992; Rees, 1995), was yet to emerge as a dominant marker or master signifier of planning educationist concern.

Friedmann (1996, p.96) was the first to note the emerging importance of sustainability in North American planning education when he reported on the adoption of sustainable development as one of five areas of planning competences for the University of British Columbia. Yet, Friedmann's article did not advocate the adoption of sustainability in his own idealised conceptualisation of a planning core curriculum. While the teaching of environmental justice as a planning issue was gaining support in educationalist circles of this period, (see: Washington and Strong, 1997) sustainability was yet to emerge as a universal concern for planning education. Dalton (2001) noted the both 'new urbanism' and 'sustainability' gave American planning programmes, especially those with a focus on civic design, a boost in the 1990s, yet still considered sustainability to be, at best one strand of many for twenty-first century planning education.

The number of North American planning schools offering a dedicated specialism in environmental planning increased more than threefold between 1984 and 2000 and this is now offered by 86 percent of all accredited ACSP schools (Swearingen White and Mayo, 2004, p.81). Swearingen White and Mayo conducted a survey of these environmental planning programs and found that sustainability was considered by respondents to be the most important foundational knowledge set to impart to students. It is interesting to note that environmental justice or its non-environmental variants were not reported in the survey findings as knowledge topics for consideration.

In the UK, sustainable development emerged as a key planning narrative during the 1990s, especially in relationship to the tension created over the demand for housing provision in the countryside (Murdoch and Abram, 2002). The Royal Town Planning Institute's (RTPI, 2001) report *New Vision for Planning* placed sustainability as a central watchword of the RTPI's new conceptualisation of spatial planning (Batey, 2003, p.332). Yet recent reforms of British planning education (RTPI, 2003), with its shift to more technological and generalised education and focus on life-time learning, leave limited room for the initial development of key competencies, including those of sustainability. Of particular concern to this author is the limited scope during the one year enrolment period in the new accredited professional master programmes for development of critical research skills predicated on a detail understanding of policy analysis and social science theory. As Davoudi (2000, p.133) cautioned *a priori*, this

short time period of instruction may be sufficient for technically orientated professional training. Yet, it is insufficient to develop skills of ethical judgement and critique necessary to fully engage critical debate over issues beyond that of blind accept of dominant values and cultural imperatives, such as those of ecological modernisation and globalisation, shaping the discourses supporting the arguments behind sustainable development.

Sandercock (1997) was one of the first Australasian based planning educators to assert the need for ecological literacy as a key constituent of planning education, yet her article did not use the signifier 'sustainability'. Richard Cardew (1999, p.135) argued for the importance of integrating environmental management into urban planning education, where at best, in Australia, 'environmentalism may be regarded more as sustainability, where energy use and transport issues are given more prominence than water quality, water movement, waste management and habitat protection.' Cardew argued, drawing on both Australian and New Zealand models, that planning students need greater exposure to scientific approaches in environmental management, perhaps best delivered as a consequence of collaboration between planning and environmental departments. It is interesting to note that Cardew considered sustainability a socially orientated concept, rather than ecological, at least in the planning education discussed within his article.

Cardew's desire was then being fulfilled, at least, in New Zealand. Dixon (2001, p.6) observed that the dominance of neo-liberal values and that country's planning regulation focus on sustainable resource management, was putting pressure on planning education programmes to 'shift from design and social concerns to a more singular focus on scientific', legal and environmental knowledges; raising the question: was 'sustainable development the new goal of planning?'

Sustainability is now a regularly used signifier in the planning education related literature, but this literature has supplied, at best, limited definitions of the term, often using environmental education, or competency, or literacy, and sustainability interchangeably, as does Thomas and Nicita (2002) in their overview of the state of Australian university education for sustainability. Bruce Glavovic (2003, p.25), the head of New Zealand's second largest planning school programme, viewed sustainability as the core concern for planning education where 'a good planning education should therefore provide the quintessential foundation for understanding

sustainability issues, and transmogrifying this understanding into workable sustainability solutions.' Yet, sustainability, even as a core for planning education, appears to remain an undefined ideal with the contemporary educational literature consistently having difficulty in defining what exactly is meant by the signifier, and especially how it should be operationalised. For example:

> Sustainability is still being conceived here as a condition or established trend towards the operational realisation of which the whole process – education for sustainability – is susceptible of being directed… But the issue is, how to frame that ideal – which does not spring in us fully formed – and how to turn it into a political reality, a set of guidelines and constraints for collective and individual decision making (Foster, 2001, p.156).

The following sections explore the signifier 'sustainability' from the perspective of Lacanian and Zizekian philosophy. This is a view of the world that considers social reality itself to be an aggregate of shared illusions or ideological constructs. Subjects, as participants in society, materialize the symptoms, or artefacts, of their ideological belief sets via their actions and behaviours. In this worldview, sustainability acts as a highly valued identity-shaping concept for its adherents, especially planners, even though, when asked, all have great difficulty in concisely and comprehensively attempting to define and operationalise the concept. Yet, it is this very fuzziness that gives sustainability its ideological power.

**Sustainability as a Master Signifier of Ideological Identification**

The label sustainability is used in a manner that Markusen (2003, p. 702) refers to as a "fuzzy concept".

> A fuzzy concept is one which posits an entity, phenomenon or process which possesses two or more alternative meanings and thus cannot be reliably identified or applied by different readers or scholars. In literature framed by fuzzy concepts, researchers may believe they are addressing the same phenomena but may actually be targeting quite different ones.

Sustainability is a concept that everyone purports to intuitively understand but somehow finds very difficult to operationalise into concrete terms. Regardless, no planning or policy document can omit the concept these days because sustainability or

‘sustainable development is declared as the ultimate planning goal although it is not usually specified what it means exactly and how it is to be achieved (Briassoulis, 1999, p.889). Consequently, ‘the success of the sustainable ideal… is due especially to its unifying promise, the way it seems to transcend ideological values of the past’ (Ratner, 2004, p.51).

Gunder (2003b, 2004, 2005b), drawing on Lacanian theory, has identified sustainability as a master signifier of identification for many involved with the planning discipline. This theory suggests that the individual is constituted as a conscious subject in society via his/her identifications with a collection of shared master signifiers (Verhaeghe, 2001). These vary from descriptive words of actual appearance, ethnicity and gender to abstract words representing a subject’s spiritual and intellectual values (Bracher, 1999, p.45). This aggregation of master signifiers constitutes a person’s ego-ideal, that is the core ideals, dogmas and a sense of self constituting who, subjects mostly think, they are.

Each of our intellectual master signifiers is comprised of diverse and often contested sets of ordered signifiers that each constitutes a specific dialogue of knowledge, practices, norms and belief. Each master signifier provides an anchoring point or holder for these competing fields of diverse narratives and, by encapsulating them, under one single label gives them common identity even in their diversity (Zizek, 1989, p.88). Each master signifier acts as a container without specific meaning in its own right. It is an empty signifier. Yet this lack of specific meaning, this emptiness, allows it to contain a conflicting range of narratives under one label of master identification we can share with others.

We treasure each of our identity-bearing master signifiers for they provide our sense of self. We vigorously defend our master signifiers and many, if not all, of our assertions have a primary purpose to affirm the value and supremacy of these master signifiers and the values and knowledge sets constituting them. This ongoing defence is central to our ‘ego’s sense of oneness and wholeness’, it defines who we are to others as socio-political actors within society (Bracher, 1999, p.45).

Because we want to protect and defend the values and ‘truths’ of our master signifiers, they constitute our joint groups and communities of shared interest. Master signifiers let us have collective and amicable social identifications, while at the same

time permitting us to accommodate diversity of belief and disagreement within, and across, each particular identification. They compose the structuralisation of our socio-political life (Stavrakakis, 1999, p.30). For, within our groups of shared identification, while the master signifiers themselves remain unchanged, their explanatory contents are widely variable and subject to all sorts of diverse and contrary hegemonic enunciations (Laclau, 1989, p.xiv). Take 'planning', itself, as a master signifier of identity. Communicative social planners, economic development specialists, urban designers, transportation specialists, natural resource managers and regional scientists all defend their shared identification with planning while drawing on often quite diverse knowledge sets to undertake their planning practices (Gunder, 2003b, 2005b). Regardless of this diversity, most planners share a common desire to make the world a better place, even if the very meaning of this 'betterment' is also highly contestable.

## Planning as a Group Identity of Shared Mysteries and Contested Beliefs, Knowledges and Practices

The planning profession is constituted by a membership of similar-minded, but not always agreeing, practitioners. All human disciplines, or professions, distinguish themselves through the shared use of 'technical' terms, or master signifiers, whose definition is often ambiguous, difficult to learn (hence providing barriers to admittance) and always changing and/or evolving for the practitioners involved. As Gunder (2003b, p.286) reported, what ensures a discipline's homogeneity are its specific professional master signifiers whose meanings are actually a mystery[2] to all its practitioners – no one knows what they really concisely mean, but everyone assumes that all others do. Consequently, they have to be 'the real thing,' and so everyone uses them constantly (Zizek, 2002b, p.58). A master signifier is most effective where:

> It appears mysterious, nonsensical, incomplete, not only to us but even to the Other. For it is just this that appears to open it up to us, allow us to add to it, make it our own. It is just in its lack and unknowability that it calls upon us to realize it, take its place, say what it should be saying. (Butler 2005, p.56)

[2] The archaic name, or signifier, for a guild of craftspersons or trade was 'mystery'.

Practitioners and academics teaching the subject do not know exactly what these terms mean, they largely just retain a belief that they are a good 'Thing' that we have to development more knowledge about – hence the perceived value of academic research (Lacan, 2004). This is especially the case for planning, which is largely an ethical project as to what 'ought to be' in the future (Gunder, 2004, p.302). For planning, these especially include the master signifier of the 'public good' and now 'sustainability'. Planners regularly use these terms; often as justification for their professional actions, e.g. we must do this if we want a sustainable city or a sustainable end! Yet, what unites planners (and other professions) as a discipline is fundamentally their common, or shared, lack of knowledge (Zizek, 2002b, p.58). No one knows, yet alone can succinctly or comprehensively and universally define, what a sustainable city, or the common good, for that matter, actually is! At best, we can only guess towards some vague notion that lacks a clear focus. But it is this lack of clarity that allows this master signifier to be a 'good Thing' for all those that embrace it, regardless of the particularity of their individual understandings, dreams and illusions about this sublime object – which make it profoundly ideological in its very ontological nature.

As Naess (2001, p.503) observes not just planning practitioners, but authors of planning articles and books pertaining to 'planning procedures and sustainability' generally fail to 'clarify what they consider to be the substantive content of sustainable spatial planning.' Yet, it is inherently considered to be a good thing, otherwise why have it as a goal to be achieved! Hence, we seek new knowledge to fill in this lack of understanding. But this is generally without success, as new knowledge may answer aspects of our initial quest, but then it tends to shine the light on new voids and incompleteness in our understandings and we spin new illusions and fantasies to ourselves as to why this lack of understanding about this desired thing continues as it does.

**The Value of Sustainability to Planning's Conceptualisation of Social Reality**

While it is perhaps sometimes not straightforward to defend 'planning' and the value of planning to non-planners, other master signifiers are particularly easy to defend, for few, if any members of society, would wish to disagree with them. They are literally

'motherhood'[3] and sustainability – protecting the environment for current and future generations – is situated readily on this pedestal of unquestionable goodness for most of society. This gives this word great ideological power, particularly when used in conjunction with other signifiers, for, by its mere association, it also embosses these other concepts as 'good things' that everyone can identify with. If sustainability is unquestionably good, then sustainable cities or ends must be good, as must sustainable management, or sustainable development. Who can argue against sustainability and all that is associated with it? This provides great value to the current discipline of planning, particularly if sustainability is now the profession's core purpose and goal. For sustainability places planning's very identity and justification largely beyond public challenge.

Master signifiers, such as sustainability, convert 'the arbitrary and conventional into the regular and natural' state of the world: 'that by which an implicit order or prescription is made to seem as though it is only the description of a previously existing state of affairs' (Butler, 2005, p.19). These ideological markers construct social reality itself and once identified, they appear as ideals, which have always existed, even though they are new concepts and states of constructing our aspirations and values within the world. Planning education did address issues of ecological and environmental concern prior to the emergence of the signifier sustainability (Beatley and Manning, 1997). But it was the transcendence of this signifier into the role of master signifier of subject identification and purposeful belief that allows this field of diverse issues to coalesce into one unified and constituting theme of identification, ethical value and mission, even if the story of sustainability remains fuzzy, ambiguous and incomplete. Kant termed these incomplete and often unclear ideological labels: transcendental ideas, or ideals. If planners, or other actors, completely reject these signifiers and the hopes and even illusions that often support them, they displace social reality itself; the second any human subject removes their undefinable master signifiers from their constructed realities, '*reality itself loses its discursive-logical consistency*' (Zizek, 1993, p.88).

Further, Lacanian theory suggests that the basic functioning of social reality requires *'a certain non-knowledge of its participants'* (Zizek, 1989, p.21). Social reality is

[3] In the Lacanian parlance of desire 'mother' is the supreme good, but one that we can never attain (Safouan, 2004, p.84).

constructed symbolically via a set of ideological illusions, or fantasies, which we take on without question so as to ensure our existence appears complete, while blatantly failing to notice what is missing (Gunder, 2003a). A rather insightful example exposing this, accordingly used before by this author (Gunder, 2003b; 2004), is the following quote regarding the master signifier 'sustainability'.

> Does the way that sustainability slides from one meaning into another, as its core challenges, problems and solutions are framed and reframed, leave you uncertain about what it all means or what should be done? Or alternatively do you find that your firm and clear convictions run into the sand time after time as other 'takes' on sustainability seem to hold sway (though it is hard to pin down how or why). (Richardson, 2002, p.353)

Similarly, Naess (2001, p.504) articulates sustainability's 'chameleonic' ability to constantly change its spots, or at least contain a manifold range of diverse ideas under the one rubric.

> As the saying goes, a pet child gets many names. Concerning the use of the concept of sustainable development, one might perhaps as well say, "a pet name gets many children". Today, a manifold range of strategies and projects are promoted with the claim that they are derived from the very concept of sustainable development. It has become politically impossible not to be a supporter of sustainable development, so there is clear danger that the [original] concept will be watered out.

'Sustainability' is a master signifier that fixes, or anchors, the competing discourses of 'heterogeneous material into a unified ideological field' and this 'is perceived and experienced as an unfathomable, *transcendent*, stable point of reference' where it is near impossible to disagree with its broad remit – whatever it actually may be (Zizek, 2002a, p.18)! Yet it lacks coherent definition beyond some undefinable platitude 'to meet the needs of the present without compromising the abilities of future generations… to meet their own needs', whatever they might be (Moriarty, 2002, p.233)! Consequently, this very lack of clarity gives rise to considerable ideological power and value to the planning discipline and all others that act in the name of the master signifier. Yet, this is not without cost. In sustainability's looseness is the potential for this ideal to produce unintentioned, or even intentioned, pernicious

effects. The following section will suggest that this may be particularly so in regards to social justice.

**The Pernicious Nature of Sustainability as an Imperative**

> To think that their present circumstances and their present societal arrangements might be sustained – that is an unsustainable thought for the majority of the world's people. (Marcuse, 1998, p. 103)

The sustainability imperative, has been interpreted, at least for the Australian city, to imply 'a profound reconfiguration of urban morphology that would reduce the ecological footprint (resource demands and waste outputs) of cities and their hinterland[s]' (Gleeson *et al*, 2004, p.351). This is a reconfiguration of settlement that has little regard to the cost induced on those that currently live in, or those who will live in, these environments. As Bauriedl and Wissen (2002, p.109) observe, sustainability tends to be perceived as 'a broadly accepted norm' that is considered 'to be in everybody's interest'; consequently, planning regulation often 'neglects that what is sustainable for the one can threaten the living conditions of the other'. These authors also observe that state regulation justified in the name of sustainability effectively controls aspects of both the environment, and implicitly, but often obscurely, the very 'social contradictions of capitalist societalization' (p.109). As Markusen (2003, p.704) observes:

> Political organizers often look for umbrella concepts that can pull strange bedfellows together – "sustainability" might be an example. Or, someone wishing to obscure a hegemonic or power relationship might choose to use a rhetoric of inclusion.

As Marcuse (1998, p.104) observes in regards to the deployment of the master signifier 'sustainability' as a mechanism of ideological inclusion in relationship to housing policy and urban development:

> Sustainability is both an honourable goal for carefully defined purposes and a camouflaged trap for the well-intentioned unwary. As a concept and a slogan, it has an honourable pedigree in the environmental movement which has, by and large, succeeded in its fight to have the standards of sustainability generally accepted by all sides…. The acceptance of sustainability, at least in principle, in the environment arena by virtually all

> actors has led to the desire to use such a universally acceptable goal as a slogan also in campaigns that have nothing to do with the environment but where the lure of universal acceptance is a powerful attraction… "sustainability" is a trap.

The master signifier 'sustainability' is, more than not, deployed simply as an ideological tool to unquestionably anchor or quilt the discourse to us as an unassailable object of desire and importance (Zizek 1989, p.88). It implies that everyone has a common stake in 'sustainable transport', 'sustainable housing', 'sustainable development' or 'sustainable cities'; 'that if we all simply recognized our common interests everything would be fine, we would end poverty, exploitation, segregation, inadequate housing, congestion, ugliness, abandonment and homelessness' (Marcuse, 1998, p.105).

Yet, Marcuse (1998, p.105) continues with his argument that this is a ruse, because the very 'idea of universal acceptance of meaningful goals is a chimera.' The urban problematic is constructed of conflicting positions and desires, where one's gain is another's loss (Gunder, 2005a). The land developer's gain (profit) is the home purchaser's loss; a new 'sustainable' rail corridor means noise, vibration and loss of amenities for residents adjacent to the new alignment, little different to the adverse effects of an new 'unsustainable' motorway. Similarly, high density residential development without expensive design and construction may mean low residential amenity at the level of local place, even though it goes hand in hand with the desirable ability to sustain public transit at the regional level (Dixon and Dupuis, 2003). This list could be long!

**The Sustainable Imposition of Social Injustice**

> Urban policy is both socially produced and helps to make the urban problem seem natural, taken for granted. Dominant understandings of urban policy both reflect and influence the ways in which people experience urban living; urban policies help to define the urban "problem" or even the urban "crisis". They are not just responses to those problems but help to constitute them. (Cochrane, 2000, p.540)

Planning driven by the master signifier 'sustainability' is no longer concerned about balancing the public good between that of the market and social justice, now it is

primarily concerned with pursuing 'sustainable cities that balance environmental concerns, the needs of future populations, and economic growth' (Beauregard, 2005, in press). Now the urban crisis appears to be that our cities are simply not sustainable. What has happened to planning's concern about fairness, equity and social justice? Under this crisis of 'unsustainability', issues such as homelessness, racism, or inequality no longer appear to be burning urban issues. Yet, they have not gone away. Exploitation still occurs, it is just no longer considered an urban problem of major concern, especially in relation to the importance of reducing our ecological footprint! Is this obscuring of injustice not ideology at its most insidious!

Worse, in contrast to the honesty of the radical ecological position, the majority of takes on sustainability derive from the politically palatable view of the Bruntdland Commission (WCED 1987) that 'economic development is essential to meet social goals of sustainable development' (Haughton, 1999, p.234). This is what Davoudi (2000, p.128) and others, such as David Harvey, refers to as ecological modernization: where 'economic prosperity is essential for achieving environmental improvements.' This is a discourse largely framed by 'Northern elites' and directly constrained, if not indeed constructed by, market imperatives of competition, growth and globalisation, the very causative factors of capital generating inequality and exploitation of both the first and developing world's urban masses (Barry and Paterson, 2004; Bryne and Glover, 2002; Doyle, 1998)!

Indeed, while the Bruntdland Commission's work is 'translated usually into the simultaneous satisfaction of three objectives: economic efficiency; environmental protection; and social justice' (Briassoulis, 1999, p.890), the main focus often appears to be the tension between that of the market and the environment, with social equity being, at best, a distant third (Marcuse, 1998). Further, concerns for social equity are inherently political and outside the techno-rational scientific approach central to and dominate within considers of market efficiency and environmental protection (Briassoulis, 1999), not to mention, demanded by recent trends in international planning education, as documented in a prior section of this paper. While it is consistently argued that social equity is intrinsic to sustainable development, one or more dimension, be it inter-generational, intra-generational, geographical procedural human equity, or even that of inter-species equity, is generally overlooked in many instances of sustainability's practice lead planning implementation (Haughton, 1999).

This is perhaps because it is contrary to the dominant ideological values deployed and, even if it is not, it may be too hard to quantify from a rational perspective. For example, how should we determine the net present value of the needs of future generations in our local development plans, or the impacts of global warming on residents of oceanic atolls on the other side of the earth?

'Programmes and policies can be sustainable and socially just, but unfortunately, they can be sustainable and unjust' for sustainability 'and social justice do not necessarily go hand in hand' (Marcuse, 1998, p.103). The dominant approach adopted by planners to sustainability is one of city redesign towards more sustainable urban forms. This approach often has, at best, implicit, rather than explicit regard towards equity issues (Haughton, 1999, p.238).

> The search for sustainable urban development under which cities develop and operate imposing minimum stress on the environment has led, in its first phase, to the acceptance of well-intentioned but empirically unsupported policies of containment. They have been buttressed by notions of "the urban" which are at variation with the aspirations and behaviours of the great majority of the population. (Troy, 2000, p.552).

Urban containment to minimise the environmental footprint results in the promotion of techniques of social regulation and imposed settlement patterns that are contrary to the majority's perception as to what constitutes a higher quality of life. Intensification and nodal development promoted in the name of sustainability facilitating the viability of public transit infrastructure tends to ghettoise the working poor into high-density environments of poor build quality, amenity and service (Dixon and Dupuis, 2003; Troy, 1996). Parking restrictions and the forcing of public transit usage on the public, whether they want it or not, or if adequate provision actually exists, are justified by practitioners as a 'sustainable end' for the 'sustainable city' (Donnison, 2005).

As some argue: 'sustainable development requires not just altering behaviour patterns in relation to the environment, but about changing the broader systems that shape human behavior.' (Haughton, 1999, p.235). In this regard, some planner's take the position that the ends justify the means and that they should have the right bestowed

upon them in the name of 'sustainability' to impose their vision and the necessary behavioural changes to achieve such an outcome.

> A need for sharing the vision for a sustainable future and bringing the community along with the profession in pursuit of this vision is long overdue and can be achieved through an appropriate framework for education and behaviour change utilising existing structures and authorities to deliver such a message. (Donnison, 2005, p.18)

Is this approach, where the planner induces behaviour change on the public via their self-decreed authority to know best, justifiable? The next section illustrates how sustainability may be a powerful signifier of belief and identification, while predicated on justifications that are little more than rationalisations and rhetoric. Further, these may be justifications that simply give grounds for new disciplinary structures of control, regulation and normalisation, which sustain and enhance the authority of the planner who acts in the name of sustainability.

**In the Name of the Master: Sustainability as an Authoritarian Delusion**

> 'If the sustainability of a measure is taken as a goal, the term can become either tautological or perverse' (Marcuse, 1998, p.106)

Gunder (2003a; 2004; 2005a; 2005b), as well as Hillier and Gunder (2003; 2005) have explored the value of Lacan's (2004) Four Discourses for understanding planning theory, practice and education. The four discourses comprise that of the master, the university (or bureaucracy), the hysteric and the analyst. These four effects are central to human agency within the processes and practices of planning policy formulation and in its implementation. Lacan's 'discourses define social groups… they formalise their symbolic and social belonging' even if human subjects are unaware of this structuring (Leupin, 2004, p.68). This is applicable to planners, residents who they plan and the politicians and leading academics who resolve that we must act in the name of sustainability.

The master asserts that we will be sustainable, the university or bureaucratic discourse of the planner applies knowledge and practices in the support of the master's signifier – sustainability – to make it so. The planned resident when having sustainable

practices forced on them becomes dissatisfied and asserts the hysterics discourse by asking - why? The analyst's discourse struggles to find the motivation underlying the master's initial assertion: THAT WE MUST BE SUSTAINABLE. This is necessary because the master fails to understand his/her unconscious motivation for asserting their position as the truth. This is a truth that cannot be stated but only indirectly supported – rationalised – by the structured knowledges and practices of the university and bureaucracy. So, the discourse circle of public policy debate continues until forced by the authority of the master to be materialised as action (Gunder, 2005b).

Politician most often partake in the master's discourse because it allows them to cut through the complex considerations, analyses and deliberations of an issue to assert 'a simple "Yes" or "No"' making a 'gesture that can never be fully grounded in reasons,' because it is the affirmation of the master who will be obeyed (Zizek, 1998, p.76)! In the commanding discourse of the master, the master signifier acts as agency to shape the listener's reality and obedience. The masters must be obeyed because they are the indisputable authorities. Their power is without requirement of legitimisation: it just is! It is truth, whether the truth of political will or spiritual faith, or the 'truth' of doctrinaire scientific or academic belief. The master does not care about fact, per se, just the certainty of his/her belief (Ragland, 1996, p.134). WE MUST BE SUSTAINABLE!

While planners may want to affirm incontestable authority and control, the master's discourse can seldom be simply asserted by the expert. At best, the expert can speak on the master's behalf. 'The Great Man [sic] has said this, so we apply it, and you the student or citizen, perform it no matter what' (Lacan in Leupin, 2004, p.78). Consequently, the planner and the planner's knowledge is the slave to the master, but the slave is not precluded from drawing on the master's authority (Lacan, 2004, pp.7-8). Driven by the truth of the master signifier the agent of the university/bureaucratic discourse imparts knowledge to shape and constrain the enjoyment, hence behaviour, of those spoken to: the planned (Bracher, 1993).

The university discourse provides 'a sort of legitimation or rationalization of the master's will', here the planner presents the master signifier's truth – sustainability – as its agent (Fink, 1995, p.132). The planner transmits dominant sub-codes of knowledges, practices and values as both justification for sustainability and to

materialise the master's command for sustainability as a state of action. As Gunder (2005a, p.101) reported 'the expert policy planner's agency might be to provide knowledge and regulations (e.g. road pricing) to increase public transit ridership "driven" by the "truth" of sustainability.'

In contrast to the masters who does not know what motivation makes them assert their position, the truth for the planner in the university or bureaucratic discourse is that of the master signifier, itself. This is what warrants knowledge as being valid – the quilting or anchoring label under which the knowledge set is situated – the master's name, its signifier: sustainability. The 'truth of the university discourse… is power, i.e., the master signifier: the constitutive lie of the university discourse is that it disavows its performative dimension, presenting what effectively amounts to a political decision based on power as a simple insight into the factual state of things' (Zizek in Butler, 2005, p.142). Lacan warns that the agent of the university/ bureaucratic discourse may use rhetorical, or even false, knowledge as rationalisation to legitimise, or implement the intent, of any master signifier (Fink, 1995). Sustainability purports to be a scientific discourse, grounded on facts, even if it is an undefinable concept. Yet, as Cardew (1999) reported in the earlier section on planning education, it is actually a social construct largely concerned with human endeavours such as energy consumption and transport issues, not at all directly concerned with environmental quality, or an object of direct study by environmental, or other formal, physical sciences. Sustainability and the discourses that unsuccessfully attempt to articulate it are ideological social constructs. Sustainability and its diverse and conflicting knowledge sets are not irrefutable scientific principles, such as the laws of thermodynamics. Yet, planners deploy the signifier sustainability, literally in the name of the 'master', as though it were an incontestable scientific edict – the one and only truth.

Of course, there is a scientific basis to the environmental problematic underlying the broad sustainability context. Issues of bio-diversity, global warming and related matters are profoundly important areas of scientific inquiry and concern. However, of apprehension to this author, is the extrapolation of these global issues as the logic and justification underlying site-specific local planning regulation. Newman and Kenworthy's (1989) broad-brush analysis of energy usage and urban density is often cited as the justification for policies of urban containment and intensification.

However, the broad assumptions used in their calculations do not stand-up to challenge across a range of site-specific empirical studies (Breheny, 1995; O'Connor, 2003). Consequently, as Troy (1996, 2000) has repeatedly pointed out, there is little or no empirical research underlying many of the policy and regulatory prescriptions for compact cities made in the name of sustainability.

Apart from making a good marketing jingle for the public (see: Gunder 2003b; 2005a), what is the scientific reason and justification, i.e., the empirical scientific research, supporting Melbourne's policy objective that 20 percent of all motorised Melbourne trips should be on public transit by 2020 (Department of Sustainability and Environment, 2005); why not 15 or 25 percent? Further, what is the justification for the choice, as one regulatory means to accomplish this, to restrict inner-Melbourne residential car parking permits (Donnison, 2005). How is the imposition of this policy justified when now a simple doctor's visit may require a parent to undertake a two hour marathon on public transit with her three under five year old children, when if permitted access to a car this could be done in one fifteen minute trip. Similarly, how can this policy be fair to unrelated low-income service workers sharing the rent of a small house for reasons of affordability, when only permitted one car permit between several of them working unsocial hours in diverse locations, all poorly served by public transit (Donnison, 2005)? What is the empirical justification, if any, for this injustice? As Lefebvre (2003, p.166) suggested, planning policy is often constructed by drawing on a strategy that mixes ideological values and beliefs with rationality, as though it is all technological science. This makes the rationality of planning, at best, an arbitrary ideological construct supportive of the planners' beliefs and values. It is hardly objective, or based on valid and reasonable grounds for the injustices it often produces (Gunder, 2005a, p.187).

Lacan's university or bureaucratic discourse suggest that this process inherently destabilises the concept of objectivity in the support of the master signifier, thus the fundamental 'classical requirement of science' for unbiased rigour and repeated testing of assumptions in the continued search for facts is illustrated 'to be a mere illusion' (Verhaeghe, 2001, p.31). The 'discourse of the university is thoroughly mystifying, concealing its true foundation' that of the ideologically inspiring master signifier 'obfuscating the unfreedom on which it relies' (Zizek in Butler, 2005, p144). Anything is justifiable in the name of the master. In the name of sustainability society

must be made to change its behaviours, desired or not, by a ‘combination of law, coercion, education, religion, social structure, myth, taboo, and market forces’ (Orr, 1992, p.22).

This is where, from a Deleuzian perspective of creating metastability out of dysfunctional human immanence, governance and control derived from the bureaucratic discourse becomes a ‘never-finished work of regulation which operates to bring deviations from system requirements’ of sustainability ‘back into line’, defined by whatever dominant, or even arbitary, discourse of the day, prevails (Osborne and Rose, 1999, p.749). This is what Deleuze and Guattari (2004, p.425) call the striated social space of regulation and control. This is the place of planning’s authority which is now predicated on ensuring that all subjects – those that are planned – are normalised into behaviours and actions that fit the perceived qualities characteristics of a sustainable cities, however they might be defined, at any one time, by the planning discipline.

> Striations are elements of transcendence which structure the social field channelling the creative flows of immanence. Striations include laws, regulations, guidelines and also measures of governmentality, subjection and subjectification. They are molar constructs, anchored by Lacanian master signifiers, such as 'sustainability'. (Hillier, 2005, in press)

In the achievement of this molar construct, this transcendental end, articulated by the master who is just supposed to know, but without knowing why; which then induces planning, under the bureaucratic/university discourse, to attempt to make social reality conform to a constructed, imperfect and lacking idea of what this unknowable ideal might be. It tries to produce, so called, sustainable behaviours, where the ‘planned’ are normalised, controlled and regulated to desire and accept as the societal expectation that they should live in sustainably ‘rational’ high density communities that facilitate, or demand, non-motorised or public forms of transport. Further, planning attempts to make this a virtuous obligation of good citizenship (Osborne and Rose, 1999). This has little, or no regard, to the actual diversity of human desires, needs, or even the availability of necessary services such as efficient public transport to make the idealised construct work. Perhaps worst, it assumes a common desire for ‘the monotony of a single and universalising… model [that] is based on the assumption that humans are essentially uniform and that their behaviours and the

behaviour of their localised aggregate, can be predicted based on the behaviours of other [idealised] humans and their aggregates' (Bonta and Protevi, 2004, p.199). Here all values and actions can be justified in the name of the master to achieve a sustainable end, even if that end-result might be unknowable, yet alone achievable, by all! In this illogic of fantasy and ideology of desired wish fulfilment resides planning's new disciplinary role, at least for some, as the agent and authority of sustainability.

**Conclusion: Saving the Baby, But Throwing out the Pernicious Bath-Water**

Sustainability as an ideal societal goal, in itself, as embodied by ecological modernisation's sustainable development may well only protect the status quo of competitive globalisation and facilitates the maintenance of the interests of groups or individuals who already have largely achieved what they desire and want. It certainly does not address the needs of the disadvantaged. Building ten thousand units of social housing in one year may not be sustainable in the long term, but it is better than building only a hundred units a year, sustainably, when ten thousand families are effectively homeless today! Further, for this author, in dealing with issues of social justice, such as the problem of homelessness, poor housing provision, or high-density 'ghetto-isation', meeting immediate existing needs is more important than providing the needs of future generations. The well-off may desire a pristine environment for themselves and their children, but the first and developing world's disadvantaged want and deserve that their basic human needs are met now, even if this is not, in itself, a sustainable action.

Sustainability has emerged as a dominant signifier of planning education and practice (Gunder, 2004). Ecological sustainability, for this author, is indeed, a profoundly important principle, but it should not be used as a blunt ideological instrument perpetrating social injustice and the neo-liberal values of globalisation, particularly as deployed under the rubric: sustainable development. Triple/quadruple bottom line sustainable development is not the same as single bottom line 'ecological sustainability'. To conflate them together is to negate both the environment and the social in the name of sustainable wealth creation for the dominant minority profiting from competitive globalisation. This induces the cost of excluding the many and reifying all as a commodity.

Planning educators have a responsibility to ensure that social justice is not swept aside in the dualistic tension between market efficiency and environmental protection. To achieve this, this author, like Davoudi (2000) and Sandercock (1997) suggests that planning education must develop in students the core skills of critical enquiry and of ethical judgement. In particular, while supporting scientific rigour in developing knowledges for ecological sustainability, such as how to foster low impact community design, students should also develop skills in ideological deconstruction as to how discourses, such as those of sustainability, or others, can be twisted and manipulated to other ends. Unfortunately, this also requires both students and their academic mentors to critically reflect on how their imperatives, while enhancing the authority of the discipline, can also impose pernicious effects of injustice on those that are 'planned' within society. Sadly, this author suggests that this critical reflection often appears lacking in the planning literature and especially planning practice, particularly when it pertains to the dominant ideal, the new vision of planning empowerment: sustainability.

**References**


Allmendinger, P. (2001) **Planning in Postmodern Times**, London: Routledge.

Barry, J. and Paterson, M. (2004) 'Globalisation, Ecological modernisation and New Labour', *Political Studies*, Vol.52: 767-784.

Batey, P. (2003) 'Introductory Note: The Planning Education Commission Report', *Town Planning Review*, Vol. 74. No.3: 331-332.

Bauriedl, S. Wissen, M. (2002) 'Post-Fordist Transformation, the Sustainability Concept and Social Relations with Nature: A Case Study of the Hamburg Region, *Journal of Environmental Policy Planning*, Vol. 4. No. 2: 107-121.

Beatley, T. and Manning, K. (1997) **The Ecology of Place,** Washington, D.C.: Island Press.

Beauregard, R. (1989) 'Between modernity and postmodernity: the ambiguous position of US planning', *Environment and Planning D: Society and Space*, Vol. 7. No.3: 381 - 395.

Beauregard, R. (1991) 'Without a net: Modernist planning and the postmodern abyss', *Journal of Planning Education and Research*, Vol. 10. No. 3: 189 -194.

Beauregard, R., (2005) 'Introduction: Institutional transformations', *Planning Theory*, 4(3), in press.

Berke, P. (2002) 'Does Sustainable Development Offer a New Direction for Planning? Challenges for the Twenty-First Century', *Journal of Planning Literature*, Vol.17. No.1: 21-36.

Bonta, M. and Protevi, J. (2004) **Deleuze and Geophilosophy,** Edinburgh: Edinburgh University Press.

Bracher, M. (1993) **Lacan, Discourse, and Social Change,** Ithaca: Cornell University Press.

Bracher, M. (1999) **The Writing Cure**, Carbondale: Southern Illinois University Press.

Breheny, M. (1995) 'The compact city and transport energy consumption', *Transactions of the Institute of British Geographers*, Vol. 20: 81-101.

Briassoulis, H. (1999) '*Who* Plans *Whose* Sustainability? Alternative Roles for Planners', *Journal of Environmental Planning and Management*, Vol. 42. No. 6: 889-902.

Byrne, J. and Glover, L. (2002) 'A Common Future or Towards a Future Commons: Globalization and sustainable Development since UNCED', *International Review for Environmental Strategies*, Vol. 3. No. 1:5-25.

Cardew, R. (1999) 'Two Cultures, Common Purpose', *Australian Planner***,** Vol. 36. No. 3: 134-141.

Butler, R. (2005) **Slavoj Zizek: Living Theory**, London: Continuum.

Cochrane, A. (2000) 'The Social Construction of Urban Policy', in G. Bridge and S. Watson **A Companion to the City**, Oxford: Blackwell, pp: 531-542

Dalton, L. (2001) 'Weaving the Fabric of Planning as Education', *Journal of Planning Education and Research*, Vol. 20. No. 4: 423-436.

Davoudi, S. (2000) 'Sustainability: a new vision for the British planning system', *Planning Perspectives*, Vol. 15, No. 2: 123-137.

Dear, M. (1986) 'Postmodernism and Planning', *Environment and Planning D: Society and Space*, Vol. 4. No. 3: 367 - 384.

Deleuze, G. and Guattari, F. (2004) **A Thousand Plateaus**, London: Continuum.

Dixon, J. (2001) 'Trends and Prospects for Planning Education in New Zealand', Paper presented at the 1st World Planning Schools Congress, 11-15 July, Shanghai, China.

Dixon, J. and Dupuis A. (2003) 'Urban Intensification in Auckland, New Zealand: A Challenge for New Urbanism', *Housing Studies*, Vol. 18. No. 3: 353-368.

Donnison, N. (2005) 'Bridging the gap between rhetoric and reality: making sustainability happen in Melbourne', *Creative & Sustainable Communities, Planning Institute of Australia 2005 National Congress Program and Abstracts*, 17-20 April, Melbourne, Australia.

Doyle, T. (1998) 'Sustainable development and Agenda 21: the secular bible of global free markets and pluralist democracy', *Third World Quarterly*, Vol. 19, No. 4: 771-786.

Fink, B. (1995) **The Lacanian Subject**, Princeton, Princeton University Press.

Foster, J. (2001) 'Education as Sustainability', *Environmental Education Research*, Vol. 7. No. 2: 153-165.

Friedmann, J. (1987) **Planning in the Public Domain**, Princeton: Princeton University Press.

Friedmann, J. (1996) 'The Core Curriculum in Planning Revisited', *Journal of Planning Education and Research*, Vol. 15. No.1: 89-104.

Gleeson, B. (2001) 'Devolution and State Planning in Australia', *International Planning Studies*, Vol. 6.No. 2: 133-152.

Gleeson, B., Darbas, T. and Lawson, S. (2004) 'Governance, Sustainability and Recent Australian Metropolitan Strategies: A Socio-theoretic Analysis', *Urban Policy and Research*, Vol. 22. No. 4: 245-366.

Gravovic, B. (2003) 'Educating Planners of the Future', *Planning Quarterly*, No. 151: 24-28.

Gunder, M. (2003a) 'Passionate Planning for the Others' Desire: An Agonistic Response to the Dark Side of Planning', *Progress in Planning*, Vol. 60. No. 3: 235-319.

Gunder, M. (2003b) 'Planning Policy Formulation from a Lacanian Perspective', *International Planning Studies*, Vol. 8. No. 4: 279-294.

Gunder, M. (2004) 'Shaping the Planner's Ego-Ideal: A Lacanian Interpretation of Planning Education', *Journal of Planning Education and Research*, Vol. 23. No. 3: 299-311.

Gunder, M. (2005a) 'The Production of Desirous Space: Mere Fantasies of the Utopian City?', *Planning Theory*, Vol. 4. No. 2: 173-199.

Gunder, M. (2005b) 'Lacan, Planning and Urban Policy Formation', *Urban Policy and Research*, Vol. 23. No.1: 91-111.

Gunder, M. and Fookes, T. (1997a) 'Planning School Programs in Australia and New Zealand: A comparison of accredited programs - vocational vs critical content', *Australian Planner*, Vol. 34. No. 1: 54 - 61.

Gunder, M. and Fookes, T. (1997b) 'In Defence of Planning Praxis, Knowledge and the Profession: Planning Education and Institutions for the New Century', *Planning Practice and Research*, Vol. 12. No.2: 133 - 146.

Haughton, G. (1999) 'Environmental Justice and the Sustainable City', *Journal of Planning Education and Research*, Vol. 18. No. 3: 233-243.

Healey, P. and Shaw, T. (1994) 'Changing meanings of 'environment' in the British planning system', *Transactions of the Institute of the British Geographers*, Vol. 19: 425-438.

Hillier, J. (2005) 'Straddling the Post-Structuralist Abyss: Between Transcendence and Immanence?', *Planning Theory*, 4(3), in press.

Hillier, J. and Gunder, M. (2003) 'Planning Fantasies? An Exploration of a Potential Lacanian Framework for Understanding Development Assessment Planning', *Planning Theory*, Vol.2. No. 3: 225-248.

Hillier, J. and Gunder, M. (2005) 'Not Over Your Dead Bodies! A Lacanian Interpretation of Planning Discourse and Practice', *Environment and Planning: A*, Vol. 37. No.6: 1049-1066.

Jepson, J. (2001) 'Sustainability and Planning: Diverse Concepts and Close Associations', *Journal of Planning Literature*, Vol. 15. No. 4: 499-510.

Jacobs, M. (1991) **The Green Economy**, Concord, Ma: Pluto.

Jessop, B. (2000) 'The Crisis of the National Spatio-Temporal Fix and the Tendential Ecological Dominance of Globalizing Capitalism', *International Journal of Urban and Regional Research*, Vol. 24. No. 2: 323-360.

Lacan, J. (2004) **The Seminar of Jacques Lacan, Book XVII,** Manuscript translation by Russell Grigg.

Laclau, E. (1989) 'Preference', in S. Zizek **The Sublime Object of Ideology**, London: Verso, pp: ix-xv.

Lefebvre, H. (2003) **The Urban Revolution,** Minneapolis: University of Minnesota Press.

Leupin, A. (2004) **Lacan Today**, New York: Other Press.

Levy, J. (1992) 'What has happened to planning?', *Journal of the American Planning Association*, Vol. 58. No. 1: 81-84.

Marcuse, P. (1998) 'Sustainability is not enough', *Environment and Urbanization*, Vol. 10. No. 2: 103-111.

Marcuse, P. (2000) 'Cities in Quarters', in G. Bridge, and S. Watson, **A Companion to the City,** Oxford: Blackwell, pp: 270-281.

Markusen, A. (2003) 'Fuzzy Concepts, Scanty Evidence, Policy Distance: The Case for Rigour and Policy Relevance in Critical Regional Studies', *Regional Studies*, Vol. 37. No. 6&7: 701-717.

McGuirk, P. (2004) 'State, strategy, and scale in the competitive city: a neo-Gramscian analysis of the governance of 'global Sydney'', *Environment and Planning A*, Vol. 36. No. 6: 1019-1043.

Department of Sustainability and Environment, (2005) www.dse.vic.gov.au/melbourne2030online/content/ implementation_plans/ 07b_action6.html, accessed 24 June, 2005.

Moriarty, P. (2002) 'Environmental Sustainability of Large Australian Cities', *Urban Policy and Research*, Vol. 20. No.3: 233-244.

Murdoch, J. (2004) 'Putting planning in its place: planning, sustainability and the urban capacity study', *Area* Vol. 36. No. 1: 50-58.

Murdoch, J. and Abram, S. (2002) **Rationalities of Planning** (Aldershot: Ashgate).

Naess, P. (2001) 'Urban Planning and Sustainable Development', *European Planning Studies*, Vol. 9. No. 4: 503-524.

Newman, P. and Kenworthy, J. (1989) **Cities and Automobile Dependency: A Sourcebook,** Aldershot: Gower Technical.

O'Connor, K. (2003) 'Melbourne 2030: A Response', *Urban Policy and Research*, Vol. 21. No.2: 211-215.

Orr, D. (1992) **Earth in Mind,** Washington, D.C.: Island Press.

Osborne, T. and Rose, N. (1999) 'Governing cities: notes on the spatialisation of virtue', *Environment and Planning D: Society and Space,* Vol. 17. No. 5: 737-760.

Ragland, E. (1996) 'The Discourse of the Master', in W. Apollon and R. Feldstein **Lacan, Politics, Aesthetics**, Albany: SUNY, pp.127-147.

Ratner, B. (2004) "Sustainability' as a Dialogue of values: Challenges to the Sociology of Development', *Sociological Inquiry,* Vol. 74. No. 1: 50-69.

Rees, W. (1995) 'Achieving sustainability: reform or transformation?', *Journal of Planning Literature,* Vol. 9. No. 4: 343-361.

Richardson, T. (2002) 'Freedom and Control in Planning: Using Discourse in the Pursuit of Reflexive Practice', *Planning Theory & Practice,* Vol. 3. No. 3: 353-361.

RTPI (2001) **New Vision for Planning,** London: RTPI.

RTPI (2003) **Education Commission Report**, London: RTPI.

Sandercock, L. (1997) 'The Planner Tamed: Preparing planners for the twenty-first century', *Australian Planner,* Vol. 34. No. 2: 90-95.

Sanyal, B. (2005) 'Strategizing to Overcome Institutional Resistance to Planning in Developing Countries', *Planning Theory,* Vol. 4. No. 3), in press.

Safouan, M. (2004) **Four Lessons of Psychoanalysis**, New York: Other Press.

Stavrakakis, Y. (1999) **Lacan and the Political**, London: Routledge.

Swearingen White, S. and Mayo, J. (2004) 'Learning Expectations in Environmental Planning: Predictions and Interpretations', *Journal of Planning Education and Research*, Vol. 24.No. 1: 78-88.

Thomas, I. and Nicita, J. (2002) 'Sustainability Education and Australian Universities', *Environmental Education Research*, Vol. 8. No. 4: 475-292.

Troy, P. (1996) **The Perils of Urban Consolidation**, Sydney: Federation Press.

Troy, P. (2000) 'Urban Planning in the Late Twentieth Century', in G. Bridge and S. Watson **A Companion to the City,** Oxford: Blackwell, pp: 543-554.

Verhaeghe, P. (2001) **Beyond Gender**, New York: Other Press.

Washington, R. and Strong, D. (1997) 'A Model for Teaching Environmental Justice In a Planning Curriculum', *Journal of Planning Education and Research*, Vol. 16. No. 3: 280-290.

Wheeler, S. (2000) 'Planning for Metropolitan Sustainability', *Journal of Planning Education and Research*, Vol. 20. No. 2: 133-145.

World Commission on Environment and Development (WCED) (1987) **Our Common Future**, Oxford: Oxford University Press.

Zizek, S. (1989) **The Sublime Object of Ideology**, London: Verso.

Zizek, S. (1993) **Tarrying with the Negative**, Durham: Duke University Press.

Zizek S. (1998) 'Four Discourses, Four Subjects', in S. Zizek *cognito and the unconscious,* London: Duke University Press, pp: 74-113.

Zizek, S. (2002a) **For they know not what they do**, London: Verso.

Zizek, S. (2002b) 'The Real of Sexual Difference', in S. Barnard and B. Fink **Reading Seminar XX**, Albany: SUNY, pp: 57-75.

# Comprehensiveness, trans-disciplinarity and sustainability in urban analysis and planning: some considerations on the Brazilian case.

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**Comprehensiveness, trans-disciplinarity and sustainability in urban analysis and planning: some considerations on the Brazilian case.**[1]

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Abstract

*The "justification for planning is often comprehensiveness", say Campbell and Fainstein (1997: 9), introducing their Readings in Planning Theory. The production and reproduction of capitalist urban space is in fact a complex process that requires comprehensive analysis for planning. But, which comprehensiveness? The first institutionalized Brazilian experience in urban planning was based on one kind of comprehensive planning methodology. However, it was not in fact an integrated analysis, but an assemblage of disciplinary analyses. More recently, urban analysis is changing to introduce the trans-disciplinary perspective, as a consequence of the perception of the mentioned complexity of urban space production and reproduction. Such complexity requires, besides the historical perspective, the political, the social, the spatial and the environmental dimensions of urban theory approaches. This new form of comprehensiveness is different from previous forms based on disciplines. On the one hand, it is observed that the disciplinary approach almost always leads to biased views of urban issues, depending on the emphasis given to each discipline. On the other hand, it is suggested that other theories such as those based on social production of space and on environmental thought constitute together appropriate theoretical approaches to urban analysis. Incorporating the historical perspective and the political praxis, these theories can be viewed as a new form of comprehensiveness, more appropriate to analyze urban space and to propose a planning process identified with the idea of sustainability in environmental, social, spatial and political terms. The article reviews comprehensiveness in planning in Brazil since the origins of institutionalized urban planning, when a disciplinary approach was adopted. It was in this period (1971) that the first graduate program in urban and regional planning was created. The ways in which the graduate programs associated to ANPUR (National Association of Urban and Regional Post-graduate and Research Programs – Brazil), and specifically the Graduate Program in Geography of the Federal University of Minas Gerais are incorporating these complex issues in their courses curricula will constitute the concluding part of the article.*

Key words: comprehensiveness, trans-disciplinarity, planning courses, urban Brazil.

## The birth of institutionalized urban planning in Brazil: the "old" comprehensiveness

A so-called "planning for the integrated local development" was established in Brazil in the sixties. This was the answer of the military government to the progressive idea of urban reform that was thought and proposed by organizations of the civil society in the

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early sixties, just before the military coup in 1964. From this moment until the end of the seventies, urban issues were always motive of public policies; through either the simple process of elaboration of plans or the provision of the general conditions of production and reproduction, including collective means of consumption. It can be said that the former had its summit from the middle of the sixties to the early seventies, and the latter, from this date to the end of the seventies. The aim here is not to write about the history of this experience, but to identify and analyze the methodology that support such experiences of planning in Brazil.

Until the sixties, some Brazilian cities and towns had their "master plans", based on a methodology of progressive-rationalist urbanism. Those "master plans" gave prominence to "mainly the functional character and the technical aspects of urbanism, emphasizing in this way the action of engineers as professionals related to the urban problem. The city is viewed mainly as a technical problem…" (MONTE-MÓR, 1980: 25). After that, there were some attempts to include the contribution of social scientists, giving a more comprehensive character to urban analysis. But, a disciplinary and presumably integrated approach to urban analysis only came after the military coup, when an institutionalized process of elaboration of local plans started in Brazil. From a total of almost five thousand Brazilian municipalities, only 281 managed to conclude their plans in the period from the mid-sixties to 1973, 68% of them with less than 50 thousand inhabitants. Other 76 were in progress in that year, totalling 357 local plans based on the methodology of "planning for the integrated local development". Most of those plans were not put into practice, remaining in a state of inertia in the City Halls' shelves.

In methodological terms the idea was that of comprehensiveness. According to Monte-Mór (1980: 30), in that period, "the cities were no longer seen only as problems of engineering techniques and architectural beauty. Sociologists, economists, political scientists, in short, the social scientists, have discovered the city as a locus to study the industrial capitalist society that was consolidating in the country". In other words, Monte-Mór (1980: 40) says that urban analysis for planning went from "the functional perspective spatially intra-systemic of the "progressism" – housing, leisure, work and circulation – to the disciplinary optic – economics, sociology, engineering, etc".

In fact, comprehensiveness was always present in the mind of those dealing with the idea of urban planning: scholars, intellectuals, researchers, academics, graduate students, and even some urban planners. The character of comprehensiveness changes, however, according to the succession of social events and processes and their spatial expression, besides the theoretical approach given to urban analysis. Thus, a comprehensiveness based on an assemblage of disciplinary analyses seemed to be appropriate to deal with the "urban question", in this first moment of urban planning in Brazil. Technical rationality was the mainstream of urban planning approach of that moment when state power was in the hands of the military and of a technocracy. In political terms, it was an ambiguous moment. On the one hand, urban planning methodology and resources were centralized in a central state institution, led by well-intentioned technicians, mostly architects. On the other hand, the execution and implementation of urban plans were under the responsibility of local governments, which had no political and financial autonomy under the military regime. Being elaborated by private firms or consultants, urban analysis for planning was almost always a well-elaborated diagnosis within each discipline, but did not constitute an actually integrated analysis, as it would be expected as a result of a comprehensive methodology.

Summing up, what is important to retain is that, as said above, planning as a process did not exist in the period from 1964 to 1973. The same can be said in relation to the period from 1974 to 1979, when an effective urban policy was put into practice in Brazil. Its goals were tied to those of a modernizing economic policy centrally commanded by the military government. Thus, urban policy in that period was in fact a strategic program to endow some selected cities and metropolitan regions with the necessary conditions of production to support economic growth. Created in 1973/74, the metropolitan regions are an exception as far as planning is concerned. Most of them experienced an effective process of comprehensive analysis for planning. Except for the short period from 1975 to 1979, however, when good analyses were prepared, the metropolitan institutions of planning did not have the necessary financial and administrative autonomy to consolidate planning as a continuous process. Since the eighties, the nine settled metropolitan institutions either due to the state crisis or to other reasons were decaying, meaning that a continuous process of analysis for local and metropolitan planning was interrupted and lost.

The institutionalization by the central government of that experience in plan making led to the creation, in 1971, of the first graduate course on local planning in Brazil. It was financially supported through an agreement between the Federal University of Rio de Janeiro (UFRJ) and the Ministry of Interior, which was responsible for the urban policy during most of the military political regime. It is worth saying that there is no undergraduate planning courses in Brazil. The graduate course, known by the acronym PUR (Urban and Regional Planning), was born within a graduate program in engineering – COPPE (Coordination of the Graduate Programs in Engineering – UFRJ). This graduate program was created in 1965 with the main objective to be rather "a center of high level technical and professional formation to endow the country with self-technological capacity, [than] another regular engineers' school to attend routine demands of the existing labor market" (NUNES et alli, 1982). According to a former director of COPPE, the PUR should be a program of urban planning of a quantitative character, that is, the engineering of planning. In his own words the idea was "to develop urban planning using mathematical methods under the engineering of planning point of view. (…) the disciplines of urban sociology, economy, history, necessary to the urban planning, would be given by lecturers coming from other areas of the university" (NUNES et alli, 1982).

On the one hand, those orientations show that, in spite of the disciplinary comprehensive approach mentioned above, planning education was seen with a strong mathematical bias. On the other hand, the lecturers "have discovered the city as a locus to study the industrial capitalist society that was consolidating in the country", as said above, which, in the last instance, means to deal with contradictions and conflicts, which rational and biased mathematical models are unable to grasp. A crisis then dominated the relationship between COPPE and PUR until 1976 when most of the lecturers were dismissed. The PUR was restructured into an independent institute within the university organization named IPPUR (Institute of Urban and Regional Planning) and is, nowadays, the most consolidated graduate program in the area of urban and regional analysis and planning.

**From the attempt to create an urban planning process to the emphasis in management and governance in urban policy-making.**

The eighties can be characterized as a period of political, economic and State crisis. In this context, the idea of planning in general and urban planning in particular for the long or even the medium term was abandoned. Despite that, it was a moment of intense movements related to the urban question - led by intellectuals, popular movements and other organizations of the civil society - particularly those aiming at the proposition of an urban reform, based on the construction of a legal land use and occupation system. These movements were responsible for presenting an amendment to a new Constitution, promulgated in 1988, just after the end of the military regime in 1985.

The 1988 Brazilian Constitution introduces the Master Plan as a "basic instrument" to be adopted by the local governments as a way to pursue "the social function of the urban property", the primary principle of the proposed urban policy. So, a first question is: what is the nature of this proposed Master Plan? How does it relate to planning?

It can be said that urban planning is hardly a well-elaborated concept in present-day Brazil. A result of this initial lack of definition refers to the quantity and variety of interpretations on what must constitute a Master Plan, given by the local constitutions that follow the national one. Some of these local laws provide a complete prescription of the composing elements of a Master Plan, better identified with the old idea of comprehensiveness. That is, a comprehensiveness encapsulating the activities of the whole apparatus of local government. These kinds of prescriptions can lead to reductionisms, mainly when the Master Plans are prepared by consultants that are not acquainted with the whole mobilization and discussion that supported the inclusion of reformist measures about new forms of appropriation of urban land in the constitutional text. In these cases, the elaboration of Master Plans becomes an automatic issue disconnected of both a new praxis and a theory that had contributed for advancements in the process of understanding the production and organization of urban space.

Another result refers to the inexistence of clear limits between planning, master plan, government plan, instruments for policy implementation, and so on. My understanding is that the Master Plan should be essentially an instrument of planning, responsible for

congregating basic analysis to support the implementation of urban legislations, particularly those related to land use and occupation control. What is actually important then is planning, which should include, besides the Master Plan elaboration and revision, a constant and relatively autonomous process of urban analysis. This has been a kind of “a lost link” in urban administration in Brazil.

What has been observed is the priority for those aspects related to the creation of participatory forms of urban administration through either deliberative or consultative councils; of a participatory budgeting, among other forms, aiming to broaden the representative democracy by means of an urban governance process. There are already several analyses attesting the advancements in the process of democratic consolidation at local level due to these new forms of governance. That is, the participatory character of some local administrations is consolidating and institutionalizing a kind of practice, still in embryo, of democratic decision-making in the cities. Either in its embryonic form or already consolidated, this kind of decision-making depends on a systematic and constant knowledge of the city. That is, either for socialized decisions or for other forms of governmental decision, it is essential a certain type of comprehensive and continuous urban analyses. This new comprehensive approach cannot be similar to the old one. First, because the latter was much more identified with a false integration of disciplinary approaches, as said above, than with the idea of a deep knowledge of a complex urban space. Secondly, and certainly more important, it is necessary to avoid the autonomy of the technical dimension of analysis (which can not be equated to planning autonomy) that was responsible for a kind of inversion of values in the attempts to apply comprehensive planning in the past. That is, the establishment of objectives and priorities were derived from a presumed integrated disciplinary analysis, based on a technical rationality, disregarding the social actors of the local political scene. It was not therefore considered the political nature of planning that should be implicitly or explicitly manifested in the establishment of objectives and priorities.

However, the abandonment of urban planning based on a continuous and comprehensive analysis of the production and reproduction of urban space is not only a result of the emphasis given to governance, observed since the promulgation of the 1988 Constitution. Since the early nineties, it has been also a consequence of the minimum state ideology based on neoliberalism. Besides that, it is necessary to take into

consideration the breaking of spatial barriers, a result of a historical sequence of revolutions in the means of transport and communications (HARVEY, 1995), and the changes related to a restructured and flexible process of production. As a result, local governments are competing for the attraction of highly mobile and flexible investments, and financial and consumption fluxes, searching for the insertion of localities in a globalized economy through a process of management that Harvey (1996) calls urban entrepreneurism. The instrument for that has been the strategic planning, which is in fact, a strategic form of governance, where only the participation of the most economically privileged actors is taken into consideration. [3] There is no doubt that this fact has been also a strong opponent to the reinsertion of a constant and continuous process of urban planning in Brazil.

Souza (2003: 31) referring to the above question says:

> "The weakening of planning is followed by the popularization of the term *management* [gestão in Portuguese] which is a revealing symptom: as management means rigorously the administration of resources and problems *here and now*, operating therefore in the short and the medium terms, the favoring of the idea of management to the detriment of a consistent planning represents the triumph of the "immediatism" and myopia of the over-conservative ideologists of the "free market"" (emphasis in the original).

Summing up it can be said that the pursuing of either more democratic forms of governance or the competitive insertion of localities in a globalized economy, have led, even by different ways, the local administrations to neglect a planning process which incorporates both a technical, comprehensive and continuous analysis, and the political aspects through governance. To consider the latter out of a consistent planning process means to equate it to strategic actions tied to the short term of one government period.

This neglecting of planning as a process, should not be happening in those local administrations were progressive political parties are in power. It is observed in those administrations that new forms of governance are under the responsibility of those militants of social movements that have fought for urban reform during the eighties. [4]

[3] For a critical analysis of strategic planning in general and in Brazil in special see Vainer (2000).
[4] More recently this has been also occurring at federal level with the creation of a Ministry of Cities.

On the one hand, this fact has overcome the old discussion about the separation between the technical and the political nature of urban planning. That is, those responsible for the elaboration of plans and new forms of governance are also participating in the process of establishing objectives and priorities. On the other hand, those militants are also committed with the solution of old and persistent urban problems that require urgency and participation, leading to the establishment of new forms of short-term governance as mentioned above. Important parts of the planning process are thus forgotten, specially a more comprehensive and continuous analysis of the dynamics and transformations of urban space. This is one of the hypotheses of a research in progress that analyses the case of Belo Horizonte, the capital of the State of Minas Gerais, Brazil. Another hypothesis about the inexistence of a complete process of planning refers to the place that planning activities occupy within the administrative structure of municipalities. Depending on that form of insertion, urban planning may have different roles: to be a simple activity of revising the Master Planning; to be equated to a government plan, either strategic or not; to be submitted to a kind of pragmatism if it is within an institution responsible for a fragmented and immediate form of decision-making. All of them may be, simultaneously or in different moments, occurring in the administration of Belo Horizonte. As said above, however, the search for empirical evidences for this is still in progress.

**From the disciplinary to the trans-disciplinary approach to urban analysis for planning and governance.**

Some empirical information about the graduate programs associated to ANPUR seems to be a good starting point for this discussion. From the 39 components of ANPUR[5], 32 maintain graduate courses and research activities related to urban and regional issues.[6] The ANPUR's website inform that these 32 graduate programs cover a large variety of disciplinary approaches (Table 1).[7]

[5] This information refers to the period immediately before the last biannual meeting occurred in May 2005 (Source: www.anpur.org.br).
[6] The other seven are only research centers.
[7] Some of this information might be incorrect, insofar as they are not based on an accurate research. It can be said, for instance, that most of the graduate courses in geography incorporate important disciplines related to economy, social science and even urbanism.

Table 1: Disciplines covered by the 32 graduate programs associated to ANPUR

| Disciplines | Number of occurrence |
|---|---|
| Public administration | 3 |
| Social science | 7 |
| Demography | 2 |
| Economy | 8 |
| Engineering | 3 |
| Geography | 5 |
| Urbanism | 11 |
| Law | 1 |

Source: www.anpur.org.br

It can be observed that urbanism, economy and social science are the most significant disciplinary approaches to urban analysis for planning and governance in Brazil. Some of this information might be incorrect, insofar as they are not based on an accurate research. It can be said, for instance, that most of the graduate courses in geography incorporate important disciplines related to the economy, to social science and even to urbanism. Conversely, some of graduate courses in urbanism might eventually be incorporating a geographical approach to urban analysis.

The tracks defined for the last biannual meetings of ANPUR are probably more appropriate as a means to understand the content of those mentioned graduate courses curricula. At least in the last decade, the tracks of ANPUR's meeting are structured around the following subjects related to the area of urban and regional analysis and planning: management/governance, regions and territory, environment and ecology, history and design of cities, intra-urban issues and culture. This is certainly evidence that education and research activities in urban and regional analysis and planning are changing from a disciplinary to a trans-disciplinariy approach.

This has been a tendency in the Graduate Program in Geography of the Federal University of Minas Gerais (UFMG), where I have been teaching for the last 16 years. The graduate program - MSc and PhD in Geography – has two areas of emphasis:

environmental analysis and organization of space. They are in fact interconnected, except when geomorphology is the focus in the former. It can be said, however, that urban studies are inside the latter, where the understanding of the cities and urbanization has been that of trans-disciplinary processes. Besides the courses related to the specific area of geography, such as theory and epistemology in geography, the area of urban and regional studies incorporates the following courses:

- Population, space and environment
- Spatial processes
- Demographic dynamics
- Territory, region and urban network
- Organization of urban space
- Urbanization, politics and citizenship
- Urban and environmental planning and governance

There are also the so-called "special topics", that allow to develop relevant and emergent themes for the area of urban and regional studies.

Focusing on different theories, those courses incorporate the trans-disciplinarity through the environmental thought, political economy of space, political ecology, post-structuralism, cultural studies, and critical theory in general. What is important to retain is that this kind of approach introduces important dimensions of theory for urban and regional analyses such as politics, history, space, and, more recently, the environmental theory. That is, given the nature of the sociospatial processes in the Brazilian social formation, the search for knowledge production about urban and regional issues is almost always also a search for possibilities of social changes (COSTA, 2004). Besides the mentioned nature of sociospatial processes in Brazil, the adoption of this kind of approach was also a reaction to the previous approach based on the "political economy of urbanization" (CASTELLS, 1972; HARVEY, 1981; LOJKINE, 1981, among others), which had a very strong economic bias (COSTA; COSTA: 2001).

These emphases on theory do not mean that empirical analyses are not taken into consideration in researches developed by academics and graduate students in the Graduate Program in Geography – UFMG. On the contrary, most of the MSc dissertations and PhD theses are based on sound empirical analysis, which is necessary even when they aim at a critical perspective.

In conclusion, it can be said that, on the one hand, the mentioned Graduate Program in Geography and possibly most of the graduate programs associated to ANPUR, are introducing the trans-disciplinarity and a new comprehensive perspectives in their curricula. It is reasonable to believe that this also means a focus on the possibility of sustainable cities and urban agglomerations, in ecological and political terms, insofar as environmental aspects and politics have been central for either theoretical analysis or the identification of possible praxis for social changes. As mentioned above, this is very important in a capitalist peripheral social formation. To be socially effective, however, this kind of approach should be introduced as a continuous process in the planning institutions of cities and regions. This is not happening in Brazil. The reason for this, as already mentioned in the first part of this article, is the urgency that is characterizing urban administration in the country in the name of either progressive governance or strategic planning. This is in short the main challenge that the planning process is facing in Brazil.

**Bibliography**


Campbell, S. & Fainstein, S. S. (1997) "Introduction: The structure and debates of planning theory" in S. Campbell and S. Fainstein (Eds) **Readings in Planning Theory**, Maden, Massachusetts & Oxford, UK: Blackwell Publishers, pp 1 – 14.

Castells, M. (1972) **La Question Urbaine**, Paris: Maspero.

Costa, H. S. M. & Costa, G. M. (2001) "Urban analysis and praxis redefined: contributions of the theory of space and environment thought". Paper presented at the *International Seminar on Economy and Space*, Ouro Preto, Brazil, 6-7 December 2001.

Costa, G. M. (2004) "Urban analysis and práxis in Brazil: theoretical approaches". Paper presented at the *ACSP 2004 – 45th Annual Conference*, Portland, Oregon, USA, 21-24 October 2004.

Harvey, D. (1996) "Do gerenciamento ao empresariamento: a transformação urbana no capitalismo tardio", *Espaço & Debates*, n. 39, ano XVI. São Paulo: NERU: 48 - 64.

Harvey, D. (1995) “Espaços urbanos na ‘aldeia global’: reflexões sobre a condição urbana no capitalismo do final do século XX”, Transcription of a conference given in Belo Horizonte, Brazil, 1995.

Harvey, D. (1981) “The urban process under capitalism: a framework for analyses” in M. Dear and A. J. Scott **Urbanization and Urban Planning in Capitalist Societies**, New York: Methuen, pp 91-122.

Lojkine, J. (1981) **O Estado Capitalista e a Questão Urbana**, São Paulo: Martins Fontes.

MONTE-MÓR, R.L. (1980). “Espaço e planejamento urbano; considerações sobre o caso de Rondônia”, Rio de Janeiro: COPPE/UFRJ (MSc Dissertation).

Nunes, M. B. de M. et alli (1982) “Pós-graduação em engenharia: a experiência da COPPE” in S. Shwartzman **Universidade e Instituições Científicas no Rio de Janeiro**, Brasília: CNPq, pp 209 – 243.

Souza, M. L. (2003) **Mudar a cidade: uma introdução crítica ao planejamento e à gestão urbanos**, Rio de Janeiro: Bertrand Brasil.

Vainer, C. B. (2000) “Pátria, empresa e mercadoria: notas sobre a estratégia discursiva do Planejamento Estratégico Urbano”in O. Arantes; C.Vainer and E. Maricato **A cidade do pensamento único: desmanchando consensos**, Petrópolis: Vozes, pp 75 - 103.

# THE *REALRATIONALITÄT* OF CURRICULUM DEVELOPMENT WITHIN PLANNING IN SOUTH AFRICA

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**The *Realrationalität* of Curriculum Development within Planning in South Africa**

Planning curriculum are constructed in the interaction with a range of dynamic factors including politically determined national and regional priorities, market demands and vocational exigencies, current legislation, societal values, institutional obligations, power configurations at various scales, accepted pedagogic practice, and so on. In an ideal context these forces may be negotiated, and resolved as the ideal 'planning curricula'. In most cases, however, there are tensions (either explicit or implicit) that play themselves out in a subtle battle of conflicting or multiple rationalities and power interests. A normative concern for building sustainable and appropriate forms of planning education should be rooted in an understanding of the *Realrationalität* of curriculum development. What must be critiqued in a volatile and fluid context is how different rationalities, systems of value, understandings and interests interact and compete in producing the frameworks within which planners are trained.

To complicate the issue the understanding of what constitutes planning and the planner is shifting and Planning Schools can no longer lay exclusive claim to a field which now relates to areas including Housing Policy, Local Economic Development, Policy Integration, and Heritage as well as more traditional areas such as Land Management and Spatial Policy.

This paper has a threefold focus. The first is to identify the forces currently shaping planning education in South Africa (with some examples from elsewhere) - within a framework of multiple rationalities and value systems. Secondly, drawing on some contemporary strands in critical pedagogic theory and practice, the paper evaluates the way in which the planning curriculum in different Schools in South Africa is evolving. Finally, in summary the paper concludes by briefly developing a normative position on how sustainable and appropriate forms of planning education should develop that would meet the imperatives of planning to contribute to the development of more equitable and sustainable settlements within the context of multiple rationalities, practical needs and critical pedagogic enquiry.

*"Most democratic discussion and negotiation is not and cannot be based on visions of a communicatively rational, consensual, harmonious outcome. Conflicting differences between different groups' conceptions of the 'good' are not negatives to be eliminated but rather diverse values to be recognized in decision-processes"*

*Hillier J, 2003; 41*

## Introduction

A recent planning colloquium entitled "Cities, planning and everyday life: A north – south, south – south dialogue" held at the New Constitutional Court in Johannesburg reinforced my conceptual tenets that a number of different 'lenses' may be used to interpret the *business of planning* and (in the case of the direction of this paper) planning education. In particular my concern in analysing planning education has for some time now been focussed on what is being taught, for whom, by whom, how it is taught and, possibly most critical of all, what forces led to the particular curriculum that planning programmes assume. In undertaking this task I have found that very often theories become collapsed into binaries with the debates themselves become dialectical when discussing issues such as 'north-south', 'informal-formal' , 'good-bad' planning education, new vocationalism versus critical pedagogy and so on. These dialectics no doubt lead to lost opportunity. With this in mind it is important to contextualise the nature of planning practices in South Africa[1] that informs planning education.

This paper is aimed at engaging with the construction of planning education and the range of dynamic factors including politically determined national and regional priorities, market demands and vocational exigencies, current legislation, societal values, institutional obligations, power configurations at various scales and accepted pedagogic practice that shape planning education. In terms of this, the paper employs the lens of Realrationalität[2] to understand the forces and tensions that need to be understood when constructing sustainability in planning education.

[1] While the paper deals more narrowly with South Africa the concepts argued in the paper will have resonance elsewhere. The argument in the paper is not to illicit a false perception that there are more constraining issues in South Africa that are impossible to overcome, but rather that by observing the issues there may be some approaches that are of value in other contexts. This idea is reinforced later in the paper by drawing from the Aalborg case put forward by Flyvbjerg.

[2] This concept, borrowed from Flyvbjerg is explained later in the paper.

It is argued that in most cases there are tensions (either explicit or implicit) that play themselves out in a subtle battle of conflicting or multiple rationalities and power interests. In constructing planning education and indeed when constructing issues around sustainability in planning education. It is argued that in a volatile and fluid context, how different rationalities, systems of value, understandings and interests interact and compete in producing the frameworks within which planners are trained.

This paper is not entering the debate on whether or not sustainability should be mainstreamed or part of a general planning education. (See for example Feldman 1994). One could argue the case of including Sustainability as a core course or indeed as a specialism as in the case of say, development, gender, transportation or housing. While I do believe that these are important debates they are beyond the remit of this paper, and will be presented by other participants at this workshop.

The paper is aimed at understanding how multiple rationalities is central to the realities of the *business of planning* and is critical in constructing *planning education* and (in the case of the focus of this conference) central to the construction of sustainability in planning curricula.

The paper is divided into four parts. The first is identifying appropriate ***lenses*** to use and in doing so drawing from the framework of *Realrationalität.* Secondly I will outline some of the current forces at play that inevitably result in ***multiple rationalities***. My third area of focus is to briefly look at theories of ***critical pedagogy*** which reinforce the principles of *Realrationalität.* Finally I will draw these together and identify the concerns of constructing planning the curricula of ***sustainability in planning education*** and how there is a need to understand the challenges of conflicting rationality.

**Lenses: Focussing the Debates Around the Principles of *Real Rationality***

In searching for appropriate frameworks that can (at least in part) assist in a critical analysis of planning education within the spatial and temporal characteristics of South Africa in 2005, a range of frameworks may be adopted that (at least potentially) help to explain the nature of the *business of planning* in South Africa today. For example it

is often valuable to turn to the works of the 'multicultural theorists' such as Sandercock to understand the dynamics of diversity and marginalisation - and, in turn, to frame planning education around these precepts. Similarly in negotiating the realities of planning in the face of difference we can adopt a Habermasian approach and develop communicative planning approaches, drawing from the works of Forester, Innes and Healy for example.

Watson's (2002) work, however has been useful in critiquing normative theories that have inevitably emerged in the 'north' and shows how these fail to apply to the conditions we often find ourselves. These notions of rationality, mediation and negotiation often fail to absorb the conflicting rationalities, which Watson suggests run particularly deep in some contexts (Watson 2002, 2003).

The works of post – colonial theorists[3] assist in understanding the way/s in which planning programmes have emerged. These are often characterised by contradictions between British Town and Country Planning Acts (at least in Anglophone African countries) inherited from a colonial past with the harsh realities of contingency planning in an array of immense adversity. Very often it is in these contexts that there is innovative, creative and 'empowering' new practices emerging that should reshape current planning theory hegemonies. These new practices often take on what may be at best a 'hybrid' practice and at worst a set of inappropriate rules, procedures and regulations that have little to do with the realties of the everyday experience of living in cities in the so called 'south'. (Harrison 2005).

There is little doubt too that the literatures produced by Lefebvre and de Certau on 'everyday life experiences', provide planning practitioners and educators with a critique of the values associated with the 'public good' in stark contrast with peoples basic existence in their everyday life. It may well be that the kinds of life experiences in more extreme contexts are often difficult to come to terms with. Some of these everyday experiences are discussed below and certainly reinforce the principles of

[3] The works of Spivak, Said, Babha, Chandra Mohanty and Trin T Min ha have been useful in explaining and "subverting the dominance of colonialism … in a way that recognizes the extent to which the colonized and colonizer are constituted in an engagement with one another " Harrison 2005

multiple rationalities. It is argued later in this paper that multiple rationalities are not necessarily easily mediated in the Habermasian sense of communicative rationality.
In this paper I have found that, like Watson in looking at planning practice, there are many forces at play in constructing planning education. The argument is that there is an inevitable problem in accepting sustainability in planning education as though it was either a neutral sphere of education or accepted as a necessary *universalist common goal*[4] and that this will inevitably lead to either a lack of effective implementation or of using the principles as a means of continued oppression through the discourse of Planning. This *dark side of planning* (Flyvbjerg, Richardson and Flyvbjerg, Harrison, Yiftachel) is discussed later in this paper.

Specifically, within the focus of this paper, sustainability and planning curriculum are inherently viewed from a range of rationalities. Connelly and Richardson for example discuss how the introduction of "sustainable development perspectives … shows that current procedural approaches to [Strategic Environmental Assessment) SEA, underpinned by 'expert' and 'participative' perspectives, are not likely to lead to an acceptable outcome. Because fundamental questions of value difference are not being explicitly addressed in procedural debates, certain interpretations, or ways of thinking, may come to dominate SEA practice, without the SEA community being able to consciously identify the values which it believes should *drive* assessment". Connelly and Richardson (2005, 393).

Similarly, it is my argument that, by employing a framework of *Realrationalität,* there is a better chance of effective curriculum development underpinning environmental sustainability in planning curriculum. The planning curricula cannot ignore issues of power, the everyday, values and multiple rationalities.

I should also voice unequivocally that I support the notion of environmental sustainability in planning curricula and would go as far as to argue that it should be mainstreamed into planning education My aim however is to understand the *Realrationalität* of '*environmental sustainability',* and in doing so to understand the real rationalities at play, the different values, the inherent tensions and the tensions

[4] Brassiolis defines Environmental Sustainability as "the simultaneous satisfaction of three objectives; economic efficiency; environmental protection; and social justice" Briassoulis H (890; 1999)

(explicit or implicit) that play themselves out. The point is to do so in order to incorporate sustainability into planning curricula within a spatial and temporal context, critically and argumentatively. In developing this particular frame I find that philosophically the works of Foucault assist in understanding power and rationality. In planning, the works of Yiftachel, Flyvbjerg, Richardson are useful – so too is the work of Watson in the South African context.

While one may analyse planning education as being constructed in a framework of communicative dialogue (from an Habermasian lens) it is argued that in most cases there are tensions (either explicit or implicit) that play themselves out in a subtle battle of conflicting or multiple rationalities and power interests. "Instead of side-stepping or seeking to remove the traces of power from planning, an alternative approach accepts power as unavoidable, recognising its all pervasive nature, and emphasising its productive as well as destructive potential. Here, theory engages squarely with policy made on a field of power struggles between different interests, where knowledge and truth are contested, and the rationality of planning is exposed as a focus of conflict". This is what Flyvbjerg has called *Realrationalität,* or 'real-life' rationality (Flyvbjerg 1996), where the focus shifts from what *should* be done to what is *actually* done. This analysis embraces the idea that 'rationality is penetrated by power', and the dynamic between the two is critical in understanding what policy is about. It therefore becomes meaningless, or misleading - for politicians, administrators and researchers alike - to operate with a concept of rationality in which power is absent" (Richardson and Flyvbjerg, 2002).

Developing a critique of the discourse of curriculum construction, it therefore may be argued that any aspect of curriculum development should be rooted in an understanding of *Realrationalität.* What must be critiqued in a volatile and fluid context is how different rationalities, systems of value, understandings and interests interact and compete in producing the frameworks within which planners are trained. Richardson and Flyvbjerg for example "argue that the use of the communicative theory of Jürgen Habermas in planning theory is problematic because it hampers an understanding of how power shapes planning" The counter argument these authors pursue is one which is rooted in "asking difficult questions about the treatment of legitimacy, rationality, knowledge and spatiality" (Richardson and Flyvbjerg, 2002).

In reflecting on these ideas, I recall statements made by a recent graduate from the undergraduate Planning programme at Wits University who criticised one of my colleagues that he had failed to be taught some of the basic technical skills of planning – in particular how to go through the procedure of a rezoning or subdivision. I am forced to question the relevance of teaching development control techniques in a context where those very controls used by the *dark side of planning*, and where, at best a small minority benefited from the so called 'public amenity' of development control.

**Realrationalität and Power – A Glimpse into the Everyday – Johannesburg, Sao Paulo? South Yorkshire? Harare? Alice Springs?**[5]

What became very clear during the recent colloquium I referred to in the introductory passage to this paper, while colleagues discussed and told stories from other planning contexts (from Harare to Zaria to Beth Sheva, South Yorkshire, Hillbrow – all this during the drama of the devastation of Hurricane Katrina on New Orleans was unfolding) was that the 'everyday life' of people in cities, and indeed the everyday experience of planning professionals differed fundamentally from context to context. But, in all of this there was continued disquiet at the state of our cities, a sense of mutual learning and recognition of the wealth of practice of relevance that is emerging from the south and that these need to be developed further.

The following points are just some of the tensions which are at play, the real rationalities at work that challenge the construction of environmental sustainability in planning education.

*Dated Legislation, Colonial Policies and Inherited Inadequacies*

While we cannot talk of *African cities* as if they have some essential element to them, there are certainly elements that are disconcerting in relation to the gulf separating planning legislation/ policies and institutions from the realities of everyday life. While it may be critical to teach, for example the principles of development control, it is

[5] Highlighting stories from Johannesburg are not meant to provide an image of despair or necessarily of hope – some of the issues faced in Africa may be more extreme than elsewhere but, as Flyvbjerg indicated in his study of Aalborg, "most people interested in politics know one or more 'Aalborg stor[y]'" (Flyvbjerg 319, 2003)

very often that very development control that is in itself an oppressive planning mechanism it has indeed resulted in planning tragedies rather than the romance associated with Planning (Harrison P. 2001).

These tragedies (or examples of the dark side of planning) can be traced this from the racial zoning legislation in South Africa to the current Operation Restore Order in Zimbabwe (which has some of it's' legitimacy based on the Town and Country Planning Act)[6]. In other circumstances it is, for example, difficult to comprehend how buildings in the middle of Johannesburg's Inner City can literally be hijacked.

South Africa can certainly be proud of the sophisticated and democratic legislation in place, based on a Constitution deeply grounded in Human Rights. However, when opportunist slum lords identify newly arriving migrants into the city at taxi ranks and offer these 'refugees' a 'home' in an empty building, with an en mass invasion , there has to be some disjuncture.

*Histories of Oppression*

In a context where, under apartheid different zoning legislation for different race groups left its continued spatial legacy, it is virtually impossible to develop one common land use management system. It is particularly difficult to identify a land use system which does not discriminate, which is common which is negotiated for the 'public good'. It is clear that within this context there are different rationalities at

[6] According to Southern African Poverty Network (SARPN) the Zimbabwe Government did not "reform the colonial-era Regional Town and Country Planning Act or the Housing Standard Act. This effectively placed local authorities in an impossible situation as these Acts require municipalities to service plots with infrastructure prior to land allocation for self-help building. It further requires local municipalities to ensure strict compliance with minimum standards prior to authorizing occupation. The norms and standards contained in these Acts, which were applied by the colonial regime as instruments of apartheid, include individual connection to water supply and water-borne sewage for high-density low-income neighbourhoods, previously known as African Townships. Water-borne sewer systems, which are particularly costly to build and to maintain, are not only unrealistic in the present economic circumstances, but are not required of medium and low density areas occupied by middle and high-income segments of the population which are authorized to use on-site sanitation and septic tanks. Similarly, the prevailing building codes and standards are also unrealistic and exceed standards currently used in several developed countries". SARPN (2005, 25)

play, there are different understandings of what the *public good* is and there are real rationalities at work.

In a study I conducted together with a non governmental organisation, where a community of disenfranchised farm workers (more like peri urban small holdings) cooperatively bought one of the small holdings, the local (white) community made the purchase near impossible based on *environmental sustainability* arguments – while in fact the land use of the existing (white) community of small holdings was not necessarily appropriate to the bio zone and yet the (black) community wished to invest in *sustainable co-operative agriculture*.

It is important to note, however, that the rapid and relatively smooth transformation of South Africa over the past ten years has been nothing short of miraculous. The relatively conflict free, transformative change bears witness to a well negotiated, albeit contested, settlement together with a committed and intensive programme to reconstruct South African society. This should not be underestimated in tracing the real rationalities that became highlighted during the 'healing' processes of the Truth and Reconciliation Commission amongst a range of other 'outing' of the multiple rationalities in the late 1980's and early 1990's.

*Contradictions in a Globally Competitive City*

The priorities of the planning system at the present time in South Africa remains one of reconstruction – however this often contradicts with principles of economic growth. A good example of this contradiction is the city positioning Johannesburg as a "World Class African City". There have been many outspoken critics of this notion, firstly critiquing the essentialising of the notion of 'African cities', secondly, that this global competition is fundamentally flawed (and sounds very similar to the goals of any other city is trying to achieve) and thirdly and possibly most critically is what this means for the urban poor, where there are large areas of inner city regeneration which some critics suggest is flawed as it marginalises the poor and fundamentally contradicts social justice.

*Histories of Traditionalism*

In Nigeria, in the city of Zaria or in the villages of Molepolole or Serowe in Botswana for example, where there has been a traditional system of land use, can there be the meshing of a 'democratic' system of planning while ensuring the implementation of some basic services? What of people's everyday experience of spending all day fetching water for the household due to inherent problems of service delivery. How do we construct sustainability into these multiple rationalities? How do we explore the implications of such phenomena?

When attempting to appreciate the everyday life experiences of say a back yard shack dweller in Alexandra north east of Johannesburg (and surrounded by some of Africa's wealthiest real estate), and the household decision to locate in absolute squalor, or to locate on the banks of the Jukskei River with threat of flooding, cholera and typhoid, does the city have any option but to remove the informal settlements, but why move people 40 km away? All of these complicate the conundrum of legislation and policy and the employment of an educational framework that fails to account for the *Realrationalität*.

As Yiftachel states (1998) "Most accounts of planning neglect to explain its frequent applications for purpose of (deliberate) social control, as expressed in the oppression of peripheral groups". In the context of many parts of Africa, as in parts of Latin America, Asia and Palestine, as possibly was the case in New Orleans the peripheral groups form the vast majority of the population. To employ universal notions of sustainability, of social and environmental justice and economic efficiency without understanding power will lead to (at best) ineffectual legislation or (at worst) oppressive rules which will merely exacerbate the problems.

*The 'Public Good'*

"Planning's theoretical and professional discourse has therefore tended to concentrate on its capacity to contribute to the attainment of well- established societal goals, such as residential amenity, economic efficiency, social equity, or environmental sustainability. Far less attention has been devoted to a regressive aspect of planning:

its ability to advance goals of an opposite nature, such as social oppression, economic retardation, male domination or ethnic marginalisation". Yiftachel 2; 1998.

Planning legislation and policy have in most cases reacted to some crises – in the case of South Africa and no doubt in many other instances these have been a result of political crisis – often using planning tools to reconstruct space (Mabin and Smit, 1997) and inevitably from a sense planning as an idea of value (Campbell H 2002) of ensuring 'public good'.

Often planning policies and planning education alike are 30 years old, based on a set of colonial notions of *public good* mirrored by a context of informality, where social networks are stronger than the local authority implying difficulty in developing a set of negotiated, mediated concensus based on some form of rationality. This does not however mean that we can throw up our hands and 'give up' – rather there is a need to meet the challenges, this happens through struggle, through a thorough understanding of the differing rationalities and knowing that no matter what the outcome *power* is at play.

*Institutional Demands*

Similarly in constructing planning curricula in the context of South Africa (and no doubt elsewhere) given a very diverse student demographic profile there is an interesting set of challenges which are at once before us. Many years ago for example I came upon a student who was most disturbed that the set of regulations he had to learn insisted that corrugated iron was for roofs when in fact his experience of corrugated iron was that entire houses were built of this versatile material. While issues of race, class, ethnicity, gender, and urban-rural background, and first generation academic, language are difficulties in all circumstances, these are often a matter of scale. In the South African institution for example it is not unusual for a student to have come from a rural background where the first introduction to a city is on arrival to University where English is not the first language where commonly held beliefs are foreign. Within this context narratives of close relatives/ communities/ families suffering the effects of HIV and Aids are not uncommon. Teaching approaches cannot make any assumptions and it has been an ongoing ideological

battle in our institutions of balancing teaching in a context of overcoming the long history of racist oppression and cultural hegemonies. How then does one begin to develop a curriculum which will relate to the students life experiences. Notions of 'remedial' teaching continue to permeate some of the conservative teaching staff, while others draw from teaching and learning techniques which attempts to provide mutual respect, of cultural inclusion of constructing curriculum around student's life experiences.

Bringing this back to the core of this paper the question is how do we, as educators, construct an educational programme that can allow for the various social meanings given to 'sustainability'.

And, mirrored against this are the ongoing demands being made to ensure student throughput as the institution becomes more pressured by the state. The planning institutions on the other hand are also making demands, sometimes of a different nature – wanting to have 'instant' planners who are able to undertake a vast range of planning skills such as EIA's rezoning and be experts at the current policies while our aim often is to ensure broad and critical thinkers and generalist planners, not experts at current central pieces of legislation such as Integrated Development Plans (IDP's).

Multiple rationalities in the form of institutional constraints, equity targets, capacity of staff in the institution, the inability to produce knowledge in a context of scarce resources and national priorities are all informing the way in which we construct, change, adapt, and restructure our teaching.

The ongoing pandemic of HIV/Aids, relentless environmental degradation, increased distance between the rich and poor, global competition (often in conflict with more welfarist approaches such as reconstruction and development), a housing backlog exacerbated by rapid urbanisation, "the context within which planning graduates … have to operate is significantly different from resource rich countries" Diaw K, Nnkya T J, Watson V (2001)

While it is often assumed that all of these aspects can be negotiated, the starting points, the embedded cultural differences and the burdens of an oppressive past negate easy lists of deliberative communication.

"Habermas also continues to disregard the particular problems relating to identity and cultural divisions as well as the nondiscursive ways of safeguarding reason that are being developed by so-called minority groups and new social movements". Richardson and Flyvbjerg (2002)

"Within this context, the challenges faced by planners are significantly different from before. One of the most important is that of operating within a system of local government which has changed its role from administration and control to development and (in theory at least) to taking forward development issues in partnership with NGO's and with communities which may not be well organised … contexts in which divisions run deep" (Watson).

Within the past decade, it has been interesting to observe the many directions in which the concept of 'planning' and the construction of planning curricula have developed in South Africa to deal with these issues – this will be documented in another paper which I am in the process of preparing. Some interesting aspects however can be summarised as follows:

- Restructuring of Higher Education Institutions has led to Planning programmes sometimes sitting in odd combinations with Engineering, Architecture and in one case a school of Public Management and Planning (with an exceptionally strong Environmental management focus)
- Most Undergraduate programmes are generalist in nature and some schools have responded to the market and societal forces of having a specialist stream within a generalist programme
- There is a continued add on of environmental sustainability
- New legislation is going to necessitate planners involvement, knowledge and skills in the direction of sustainability

This section has highlighted the multiple rationalities, permeated with tensions of the realities of the context. The Realrationalität of the concerns of planning in the South African context, the myriads of life experiences and the different interpretations of the realities illuminate the need to be cautious of developing curricula which fails to take

into account the colonial history, oppressive planning legislation traditional values, notions of the public good, the institutional demands and the forces impinging on peoples everyday lives.

Following on from this the next section aims to show that in a similar vein the development of curricula and in this case the development of curricula of planning education for environmental sustainability is permeated with multiple rationalities – complicated by diversity, marginality, demands of the state, the institution, the world of work and inappropriate curricula.

**Some Contemporary Strands in Critical Pedagogic Theory and Practice.**

"Critical pedagogy asks how and why knowledge gets constructed the way it does, and how and why some constructions of reality are legitimated and celebrated by the dominant culture while others clearly are not. Critical pedagogy asks how our everyday commonsense understandings – our social constructions or 'subjectivities'- get produced and lived out. In other words, what are the *social functions* of knowledge" McLaren P (2003, 72).

Similarly there are many authors who have written about difference and critical pedagogy (Trinh T Min ha, bell hooks, Torres, Giroux). Gore takes further the debates around issues of 'feminist pedagogy' which delves into the meanings given to *power* and in particular *empowerment.*

Within a very similar framework to that of applications of *the everyday, post-colonial theory and Realrationalität* in Planning Theory, these philosophical trends have become embedded in theories around the construction of knowledge. The works of McLaren and Giroux are particularly useful, and without repeating the frameworks or lenses discussed above in relation to Planning, suffice to say that the same frameworks or lenses can be applied to the epistemology of knowledge.

McLaren for example, in adopting the Habermasian concept of *emancipatory knowledge* states that "emancipatory knowledge helps us to understand how social relationships are distorted and manipulated by relations of power and privilege". While the theory does continue with a communicative approach (rather than

*Realrationalität*) it does have resonance with the developments in Planning Theory and in particular with understanding how power plays out in the construction of knowledge.

In short then some of the issues that need to be considered in the construction and production of planning education include:

*Issues of New Vocationalism, State Intervention and Critical Pedagogy*

The issues pertinent here is how knowledge is produced for whom, by whom? Skinner (1999) in adopting a Marxist argument to some extent argues that "nothing can stand in the way of the ideology of the marketplace and the educational policies and approaches [which] are being put in place to support it". Certainly in South Africa the rate of neo liberalist policies support this tendency. Skinner goes on to argue that the nature of the new cross field outcomes (in South Africa – and from my observations this is certainly the case elsewhere) is an extraordinary ambivalence between serving the interests of commerce and government. She states that "to identify and solve problems using critical and creative thinking' may involve (depending on your point of view) either an active commitment to solving the problems of society or competence in dealing with commercial problems" Skinner (1999). Without elaborating here, it would appear that there are multiple rationalities at play here – with, in the case of professional planning programmes, a further value interest in the form of the Planning Councils/ Institutes.

Hague, in his critiques of Panning Education in the United Kingdom is also concerned with issues of conflict and power in Planning Education. He has indicated how it is not surprising that "[the] universities (who now faced financial penalties from government if they failed to reach their target levels of entry) also created other new courses in fields deemed to be in consumer demand – e.g. In the environment area … [S]ome of these – especially the environment ones were targeting the same pool of applicants from which undergraduate planning courses were recruiting" Hague C, (2002, 12). There are a number of issues here that should alert us in terms of constructing environmental sustainability programmes (whether as part of planning programmes or not). Most obviously is that of whose interests are being served in the rolling out of programmes in a market driven political economy.

In relation to trends toward New Vocationalism, Marshall states that "if Foucault is correct, what are needed in response to neo-liberalism (and this new vocationalism) is increased vigilance, and an increased imagination and inventiveness, for there is a complex problem space brought into play by such neo-liberal reforms. We need at least, some form of critical social theory and some definition of critical theory which is not narrowly exclusive". ( J D Marshall, 1997, 8)

The challenges for constructing planning/ sustainability programmes thus requires critical enquiry into who is producing the programme, for what purpose and in whose interest? Different interests need to be made real.

*Diversity, Multiculturalism and Equal Opportunity*

Here there needs to be critical engagement in understanding the implications of diversity, race, class, gender, sexuality, language, ethnicity, rural/ urban, religion and issues around marginalised grouping[7].

It is important however, to understand diversity from a particular stance – in quoting from Trin T Min-ha, McLaren states that "to make a claim for multiculturalism is not "in the words of Trinh T. Minh-ha (1991) 'to suggest the juxtaposition of several cultures whose frontiers

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[7] I was fortunate in attending a Centre for Education in the Built Environment Special Interest Group CEBE (SIG) workshop at Cardiff University in 2003 where I met and interviewed Dory Reeves who is both a practitioner and academic. Together with other academics such as Huw Thomas they have explored Equal Opportunity (EO) in Built Environment practice and education. They are especially concerned with issues of Built Environment curriculum that overcomes oppression. Dr Reeves put forward the following interesting contribution as part of developing consciousness in EO together in an interview with a colleague.

- Establish clear terms of reference which ensure that diversity is understood as a means of achieving equality.
- Ensure that there is commitment from the top of the organisation and the commitment is public and vociferous.
- Ensure that it is clear who is accountable for diversity and equality.
- Work on achieving ownership of the issue and recognise that this may necessitate bringing in an outside consultant to facilitate change.
- Talk the issue through with colleagues and address any concerns they may have
- Provide effective training not just information. Encourage people to look at the value base of their practice and to see things differently.
- Help people think through what they can do at a team level in terms of how their work contributes to the promotion of equality through the diversity approach.
- Make equality visible in the mainstreaming agenda.
- Identify how policy is contributing to the promotion of equality. Reeves (2004,24)

remain intact, nor is it to subscribe to a bland melting pot type of attitude that would level all differences. [The struggle for a multicultural society] lies instead, in the intercultural acceptance of risks, unexpected detours, and complexities of relation between break and closure" (McLaren 1994, 206).

I have argued that in South Africa particularly innovative interventions have been made in terms of overcoming the legacies of apartheid education and in dealing with diversity "This issue of diversity of learners entering the University is compounded by the legacy of apartheid education. Initiative in dealing with this has promoted a myriad of interpretations and innovative responses in teaching and learning strategies. Issues such as Educational background, cultural assumptions, linguistic competence, political experience... (Dison and Rule1996, 83) are some of the concerns which are being addressed in a range of disciplines, within a range of institutions, both within and outside of the mainstream teaching curricula" (Klein G 1997).

The main point here is that the curriculum needs to incorporate a deep understanding of difference if we are to develop more appropriate programmes. There is a need to construct programmes around students own life experiences and to employ alternative teaching methods and principles such as constructivist[8] pedagogic practice and/or Problem Based Learning[9] amongst other innovative ideas in the discourse of 'academic development'.

*Post Colonialism, Neo Colonial Curricula and Agency from the 'South'*

"Under colonialism, most African countries inherited not only urban and regional planning systems from their colonial masters, but planning education systems as well"

[8] Drawing from the works of Vygotsky,s 'social constructivist theory', the theories range from ideas of learners actively constructing knowledge in attempts to make sense of their world to processes of interpretation that lead to understanding or knowledge (Coburn W W)
[9] Problem based learning employs, amongst other tools the 'utilisation of real world problems'

(Watson, 13). Curricula development in this context is an area of intense debate around issues of: how knowledge is produced, who is producing the knowledge, how is the knowledge that is being produced in contexts such as ours being relayed to the world, and how do we intensify our agency within these critical debates. This is currently driving some initial forces of developing networks and knowledge sharing amongst colleagues in other parts of Africa and in Brazil.

In developing oppositional rationalities Skinner questions whether or not "education can be made to promote the democratic transformation of society, or whether it can only be functional for existing systems" – Modernist knowledge production, she argues, has been based on providing power structures to maintain the status quo – that education has a political agenda which is based on a positivistic epistemology with teaching methods that are behaviouristic "a known stimulus will provide a desired learning objective within clearly understood parameters of knowledge". In response to this she argues for critical enquiry into the construction of education. Skinner J (1999).

Harrison has pointed to a growth in theorists from the 'south' and has argued that this is an exciting development that will in itself challenge the production of knowledge and its' relevance for us. "We are still looking through the glass dimly but perhaps for the first time planning academics in South Africa are confronting the context of our cities, within a framework that engages with African realities. The very recent work of Vanessa Watson on 'the usefulness of normative planning theories in Africa' and 'interpretations of place and territory in African cities', and Mark Oranje's work on 'African identity and planning' is taking planners closer to a awareness of what it might mean to be a planner in African cities. I would also like to mention the important ongoing work and influence of individuals including Richard Tomlinson, Alan Mabin, and Lindsay Bremner … which is helping us interpret the city in different ways, and is challenging many of the modernist assumptions upon which urban planning has been based. I don't think that I am too optimistic in my hope that

we are on the verge of a conceptual breakthrough, which will provoke creative new planning responses. It is a conceptual breakthrough that will take us 'to the edge of reason'. Harrison P 2002.

In conclusion then the importance of 'south' agency together with an understanding of the dynamics of diversity linked to critical thinking about the power of state, capital and interest groups need to draw out the conflicting rationalities inherent in the construction of planning / sustainability programmes.

**Can Realrationalitat Provide Normative Proposals for Planning and Sustainability in Our Curriculum?**

The short answer is no. However, I would argue that what the frame of *Realrationalität* provides us with is an awareness of the rationalities at play and that there will always be issues of power and that this is not in itself good or bad.

My argument goes further – that, as an analytical tool, *Realrationalität* provides us with a constant critical awareness – a way to look differently at how curricula is constructed, how is it constructed for whom by whom and for what purpose. Some of the key issues to emerge from this paper are that when developing sustainability in planning education we need to take a view from critical pedagogy and difference. We need to understand context, the everyday and the multiple rationalities at work. We need to question the discourse of 'sustainability' as we need to question the discourse of 'planning'.

We need to understand the institutions within which we operate and the communities they 'serve'. We need to question how the power of 'planning sustainability' is constructed and how as educators and as practitioners we are able to meet the imperatives of planning that contributes to the development of more equitable and sustainable settlements within the context of multiple rationalities, practical needs and critical pedagogic enquiry.

We need to reflect on the potential of the 'dark side' to envelope planning education: to allow it to serve interests of particular ideology, serving narrow interests in a short sighted immediate and reactionary manner. There needs to be reflexive and contextualised understandings of the ways in which Environmental Education is taught – different lenses of say postcolonial theory, the everyday and multiple rationalities that emerge from these. We need to deconstruct "the imbedded nature of social control in the very emergence, institutionalisation and practice of urban and regional planning" Yiftachel 9; 1998

We will be forced in time to develop intellectual frameworks that emerge from the south and which address the realities of the south. Realrationalität which dominates 'real world' and planning politics will require constant questioning around previously accepted universals. Flyvbjerg (2000)

According to Flyvbjerg, "for Foucault the "political task" is to criticize the workings of institutions which appear to be both neutral and independent: to criticize them in such a manner that the political violence which has always been exercised itself obscurely through them will be unmasked, so that one can fight them" from Flyvbjerg after Chomsky and Foucault "human nature: Justice versus power". In relation to sustainability in planning education one cannot assume that sustainability is neutral and/ or independent. Indeed it is in itself embedded in power within a web of Realrationalität.

'...The responsibility of planning analysts is *not* to work to toward the possibility of "fully open communications". It is to work instead toward the correction of *needless* distortions, some systematic and some not, that disable, mystify, distract and mislead others: to work towards a political democratisation of daily communications' (Forester 1989, 21).

In conclusion there is a growing field of planning theorists and practitioners from the south who are developing and engaging with the real rationalities and real politics. To reiterate, what this perspective offers is a contribution to the debate and an awareness of the Realrationalität in the construction of sustainability in planning education. This

exciting development will continue to inform the way/s in which sustainable planning enters and mediates planning curricula at the different institutions.

## REFERENCES


**Allmendinger P and Tewdwr-Jones M**, eds. (2002), Planning Futures: New Directions for Planning Theory. **Richardson T and Flyvbjerg B** (Eds) (2002) Planning and Foucault: In Search of the Dark Side of Planning Theory. London and New York: Routledge, pp. 44-62.

**Briassoulis H** (1999) Policy and Practice: Who plans whose sustainability? Alternative roles for planners. Journal of Environmental Planning and Management, 42 (6), 889 -902

**Campbell H** (2002) Planning: an idea of value Town Planning Review, 73 (3) 271 – 288

**Connelly S and Richardson T** (2005) Value-driven SEA: time for an environmental justice perspective? Environmental Impact Assessment Review 25 (2005) 391 - 409

**Diaw K, Nnkya T J, Watson V,** (2001) Planning Education in Africa: Responding to the Demands of a changing context. Paper presented at the World Planning Schools Congress, July 11 15 2001

**Feldman M A** (1994) Perloff revisited: Reassessing Planning Education in Postmodern Times. Journal of Planning education and Research 13: 89 - 103

**Flyvbjerg B** (2000)

**Flyvbjerg B** (2003) Rationality and Power in **Cambell S and Fainstein S** (Eds) Readings in Planning Theory, second edition. Oxford: Blackwell, 318 - 329

**Forester, J.** (1989). *Planning in the face of power*. Berkeley: University of California Press.

**Hague, C.** (2002) Planning education and Power: Reflections from the UK experience. Paper presented at the International Meeting in Istanbul 8 – 10 May 2002

**Harrison, P.** (2001) "Romance and Tragedy in (Post) Modern Planning" in *International Planning Studies,* vol.6 (1), pp.69-88.

**Harrison P** (2002) 'On the Edge of Reason': Planning and the Futures of Southern African Cities, Inaugural lecture, University of the Witwatersrand, October 2002

**Harrison P** (2005) New ways of thinking? Identifying conceptual differences, challenges and opportunities" **Richardson T, Stringer L Meth P** eds Everyday Life and spatial governance: proceedings of a workshop held at the University of Sheffield

on 24th June 2005. Department of Town and Regional Planning University of Sheffield, August 2005

**Hillier J** (2003) "Agon'izing over consensus: Why Habermasian ideals cannot be 'real'" Planning Theory 2(1): 37 – 59

**Innes J (**1995) Planning Theory's emerging paradigm: Communicative action and interactive practice' Journal of Planning education and Research, 19, 183 189.

**Klein G** (1997) Diversity, Competencies And Power: Developing Skills in an Undergraduate Planning Programme. Paper presented at the HERDSA conference, Advancing International Perspectives. July 1997.

**Mabin and Smit** (1997) Reconstructing South African Cities? The making of urban planning 1900 – 2000) Planning Perspectives 12, 193 – 223

**McLaren P** (2003) Critical Pedagogy: A look at the Major Concepts, 69 – 96) **Darder A, Baltodano M, Torres R D,** (eds) The Critical Pedagogy Reader, Routledge, London

**McLaren, P**. (1994). Multiculturism and the Postmodern Critique: Toward a Pedagogy of Resistance and Transformation. In **Giroux, H and McLaren, P** (eds.) *Between Borders*. London: Routledge: 194-222

**Marshall J D** (1997) Dewey and the New Vocationalism. Philosophy of Education, http://www.ed.uiuc.edu/EPS/PES-Yearbook/97_docs/marshall.html (accessed 29 October 2002)

**Reeves D** (2004) Managing differences: using the diversity approach to achieve equality. Centre for Education in the Built Environment Special Interest Group 24 (?)

**Richardson and Flyvbjerg** (2002) Planning and Foucault: In Search of the Dark Side of Planning Theory. In **Allmendinger and Tewdwr-Jones M** (Eds) Planning Futures: New Directions for Urban Planning. Routledge: New York

**Southern African Regional Poverty Network** (accessed 7 September 2005) http://www.sarpn.org.za/documents/d0001387/UN_Zimbabwe_July2005_part2.pdf

**Skinner J** (1999) "Critical Outcomes: Political Paradoxes" in Changing Curriculum: Studies in Outcomes Based Education in South Africa, Juta, Cape Town

**Watson V** (2002) The usefulness of normative planning theories in the context of Sub-Saharan Africa**.** Planning Theory 1(1) 27 – 52

**Watson V** (2003) Conflicting Rationalities: Implications for Planning Theory and Ethics. Planning Theory and Practice (4) 1 2003, 395 - 407

**Yiftachel O** (1998) *PLANNING AND SOCIAL CONTROL: EXPLORING THE DARK SIDE,* Journal of Planning Literature, 08854122, May98, Vol. 12, Issue 4

# *Sustainable Planning: Sustaining communities and practitioners*

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**Abstract**

In this paper I assert that to be sustainable, planning must be a heartful, holistic and human-focused activity. Sustainable planning practice encompasses both its outcomes and the planning act itself. I consider how planning educators can encourage students to adopt a heartful approach as the foundation of a sustainable and sustaining professional practice. I suggest the communication of three core principles - people, place and professionalism. The focus is the social and cultural in relation to the contemporary planning endeavour in its entirety – a task which is inherently inter-related, interdisciplinary, holistic and human centered. It is my contention that such an approach is essential for sustainable planning practice – for communities under the care of planners and for the profession itself. Educators, together with employers and professional accrediting bodies, have a responsibility to ensure that planners have the necessary emotional and intellectual skills, as well as on-going support, to sustain a life-long and satisfying career.

**Key Words**

Sustainability, communities, practitioners, educators, heartful. holistic

## Introduction

What is the cornerstone of our planning work? Simply put, it is people and the places with which they interact. Planners shape the environments where individuals and communities live, work and play. This is a great privilege, as well as an increasingly complex responsibility in an ever-changing and often uncertain world. But it is also an exciting challenge – one which provides the planner with infinite opportunities to be creative, innovative and entrepreneurial, as well as humane, responsive and understanding. This is central to delivering sustainable planning practice – sustainable for the communities for whom we plan and sustaining as a professional career, the practice of which makes a difference to people's everyday lives.

Given the socially and culturally uncertain environment of the world today and the current shortage of planning practitioners, it is essential that educators bring to the classroom a sustainable way of doing planning. This will address both the need for social and cultural sustainability for the community, along with a sustaining career for the planning professional. There has been a tendency to ignore the latter but given the growing planner shortage, this has to be addressed urgently and in diverse ways. My suggestions here are a starting point for a continuing conversation amongst planning educators and practitioners concerned for the future sustainability of the profession and its contributions to society.[1]

So how might educators approach this challenge? I propose three core principles to consider - people, place and professionalism. And while my focus is the social and

[1] I started this conversation more than 25 years ago by talking to my colleagues in community services when I was a statutory planner in local government. I continued it by undertaking qualitative research in planning and establishing a strong human focus in different courses in the planning curriculum at UNSW. Recently I have been working on inter-disciplinary courses in indigenous and healthy city planning and last year I addressed practitioners at the Planning Law and Practice Short Course (Thompson, S. 2004, 'Information Base: Social And Cultural', PLP Course, UNSW: November, 2004) on the three core principles that I discuss here. In this paper the conversation continues, this time focusing on the planning educator's role.

cultural, this cannot be seen in isolation to the contemporary planning task in its entirety – a task which is inherently inter-related, interdisciplinary and holistic.

**Principles**

Three principles underpin the achievement of a socially and culturally sustainable planning – people, place and professionalism.

*People*

People are at the heart of what planners do – the individuals and communities for whom they plan. Not only is it essential that planners understand their characteristics and qualities, they must acknowledge people's rights in the planning process. Understanding encompasses adopting a philosophical position of social equity, as well as an appreciation of the local and global in increasingly complex and at times, conflicting contexts.

*Place*

Place is the environment in which individuals and communities live, work and play. It is where people and space come together. It is the planner's role to facilitate the relationship between people and space to create places of meaning, belonging and fulfillment. A deep understanding and appreciation of the people-place relationship is fundamental to sustainable, heartful and human focused planning.

*Professionalism*

Professionalism is the umbrella which sits atop the skills required by the planner. These are a growing set of attributes needed to match the increasing complex task that constitutes planning today. These skills are also the foundations of a sustaining professional practice, constituting a personally rewarding career embodying reflective practice, life-long learning and personal growth.

Below I consider the main characteristics of each principle, discussing how an ongoing understanding of each is essential for sustainable planning. And while I treat them

separately, it is important to note that they are inter-related – one dependant on the other; each drawing from the other. As well as offering a series of reflections and ideas, I provide a list of resources to assist the educator in the development of a sustainable socio-cultural planning practice for the classroom.

**People**

Sustaining and heartful planning practice rests on the philosophical premise of social justice and equity. These principles must be communicated early on in the planner's education and need to be reinforced in different ways in varying planning contexts. The principles of social justice and equity include:

- Protection of the interests of people in vulnerable positions
- The adoption of non-discriminatory planning practices
- Consideration of the equity implications of proposals in terms of who looses and who gains
- Respect for cultural diversity
- Acceptance of basic human rights
- Promotion of fair, open and participatory decision making for all groups in the community. (Menzies, 1993: 3)

Students have to understand that effective planning for people starts with in-depth knowledge of who they are, as well as an understanding and respect for their needs. There is also the legitimization of community participation in the planning process. Here the educator must stress the principle of fairness and democracy.

*Who are they? What are their needs?*

This is about developing and continually refining a deep knowledge of the people for whom one is planning

At the local level, this begins with knowing how many people live and work in an area, as well as gathering other basic demographic data. But it goes much further. The complexities that are present in every group must be acknowledged, appreciated and understood. For example, how are differences of age, class, gender, disability and sexuality manifested within a particular group? What are local customs, especially those which have implications for public spaces where groups meet and interact? What are the social, cultural and religious needs of different communities in the local area? How can the planning process address them? How can planners work with other professionals in gauging, and better understanding, community needs in order to meet them?

*Example 'Possible' Needs*

Public space requirements are an immediate and relatively simple way to get students to consider the complexities of human difference and its varying demographic manifestations. Some examples are presented below. There are many others. To tap into these, students can be encouraged to use their own experiences and observations of diverse communities in the public realm.

| *Group* | *Possible Public Space Need* |
|---|---|
| Teenagers | A place to meet and 'hang out'<br>A suitable venue for skate board riding |
| Muslim women | A relatively private space where women can meet and supervise their children's play – this space must not be overlooked by others (especially men) |
| Older Greek men | A place to drink coffee together, to chat and play card games |
| Pre-school children | Safe play area which is easily supervised by parents and is unattractive to older children |

| | |
|---|---|
| Retired Chinese flat dwellers | Community garden; a neighbourhood park to walk along an even pathway and practise tai chi |

*How can I find out?*

To build up a data base of 'who they are' and 'what their needs are' the planner must use appropriate and rigorous research techniques. These range broadly, from statistical analyses to qualitative techniques, such as in-depth interviews, focus groups and detailed observations of environments and people's behaviour. They also comprise relationship building with related professionals who can assist in updating the planner's knowledge of local communities.

Understanding the nature of communities, collectively and individually, necessitates looking beyond the local area. The world today is increasingly shaped by the movements of individuals from country to country, and from rural regions to the city, maintaining traditions, while creating new lives and identities. Cultural diversity is a way of life for most nations, including Australia. Indeed, we are seen as a leader in multicultural policy and practice. Some aspects of Australia's diversity have been recognized by planners but historically the profession has planned for the able, heterosexual, white, suburban dweller, city worker, middle class male (Short, 1989). It is only relatively recently that we have considered women's needs in far flung suburbs, children's play and safety requirements, and older people's difficulties in gaining access to different parts of the urban environment. Planners are still struggling to know, understand and meet the needs of all citizens. Indigenous communities, gay and lesbian groups, Buddhists, Muslims and Christians, toddlers and teenagers, migrants and refugees, as well as the differently abled and those on the margins of society – the homeless, the poor, and the otherwise disenfranchised. Students can find these issues confronting especially if they come to the classroom with limited life experiences and little exposure to groups with different aspirations and backgrounds to their own.

The importance of developing social capital in contemporary communities is another area of growing interest and relevance for planners. This has come about as governments realize that economics alone has failed to resolve the complex problems which currently confront societies (Productivity Commission, 2003). A much more sophisticated and holistic approach is needed. Social capital, while variously defined and debated, encompasses relationships between people and the resulting networks, trust and reciprocity that transpire. Planners are in a pivotal position given their ability to create opportunities for the development of social capital. Not only are we in the business of creating public spaces, we can work collaboratively with communities and other professionals. As educators we have to open our students to these possibilities.

*Bringing them into the planning process*

Planners have a responsibility to address the needs of ALL citizens who live, work and gather in their locality. However, the notion of 'planning for all' is not an easy one to operationalise. This is particularly so given the diverse and complex communities which typify the local environment today. The profession's difficulty with 'planning for all' is related to the historical assumptions upon which the discipline rested and the complexities inherent in understanding the nature of cultural diversity. It is also linked to the use of traditional planning tools and outdated, culturally assimilationist attitudes. Planners have to acknowledge a wide range of community needs in terms of living styles, communicative routines and cultural traditions.

Creative and inclusive public consultations encourage communities to be part of the planning process. Effective planning embraces innovative public consultations appropriately, engaging with people in familiar environments where they feel comfortable and able to speak about the issues which concern them. To ensure effective engagement with the community, planners have to build a relationship with the community which is open and honest; a relationship which has as its foundation trust, mutual respect and a genuine willingness to really listen to what people have to contribute through a variety of expressive modes. Planners are now well served by different resources upon which we can draw in devising and implementing appropriate

public consultations (see resource list). Innovative practice in this area must be the rule – rather than the exception – so that a wide cross section of the community is routinely and matter-of-factly brought into the planning process. It is the educator's role to teach students how to undertake innovative consultations and to develop students' relationship and conflict management abilities – starting them on a life-long development of these competencies.

**Place**

Place brings people and space together. The acknowledgment of environmental loss is an affirmation of the importance of people-place relationships and the pain which is experienced when a special place is taken away. Fried (1963) found intense grieving, similar to that associated with the death of a loved one, when well-meaning but misdirected urban planners cleared residents from inner city slums.

Today many individuals and communities have genuine and informed concerns about how the planning process will impact upon them and their neighbourhood. This is magnified in situations where it is perceived that one's sense of home is threatened by a planning proposal. For most of us, home is the place we love and know best. It is a refuge of familiarity and control in an increasingly unpredictable world. It is where we start and end each day, and where we interact with those most important to us. Home not only encompasses the dwelling space, but extends to the neighbourhood and beyond. A threat to this special place is frequently met with disbelief and a sense of impending disaster (Porteous and Smith, 2001; Read, 1996). This may translate into angry outbursts hurled at the planning officer trying to explain a development proposal or new strategic policy. At the very least, the planner must be prepared for this emotional outburst. He/she must acknowledge the deep-seated pain that the dispossession of one's home means and look for appropriate ways to address such loss.

An appreciation of the profound nature of the people-place relationship is fundamental in developing a sustainable and heartful planning practice. Students readily relate to the

importance of home in their own lives and it is an easy next step to show them how a change to familiar neighbourhoods can be frightening and threatening for individuals and communities. In my experience in the classroom, it is not difficult to break down the separation of heart and mind in relation to this central aspect of planning, showing students how they need to be compassionate, patient, empathic and caring when working with communities facing change, no matter how small or large.

I frequently use the popular, funny and yet, poignant Australian film, *The Castle*, to show how one family, who dearly love their home, fight fearlessly and unceasingly to protect it in the face of change (Cilauro et al, 1997). This family's refusal to accept a pay-out (albeit economically 'reasonable') by the planning bureaucrats demanding to compulsorily acquire their property, can be seen as irrational and foolish. Even though the Kerrigan's home abuts a busy airport and is exposed to overhead electricity wires, this house is the family's castle, the focus of their lives together, where they can express themselves and share lasting memories and associations. They will do almost anything to defend it. Students appreciate the depth of relationship that the fictional Kerrigan family has with their home. In class discussions after viewing the movie, they express an understanding of this intense people-place relationship, something they need to have when working with communities facing change.

There are other non-fiction examples on which I draw to show how planning practice has acknowledged that change can be difficult for people. In two cases of major urban redevelopment which resulted in the demolition of loved homes, the devastating impact of individual and community loss was addressed by planners (Costi and Bailey, 2003; South Sydney Development Corporation, 2001). The planners found ways in which the sense of home could be celebrated and commemorated. A memorial to the people and their lives in those special places meant that the pain of leaving was publicly acknowledged, even if private mourning continued.

The safer and healthy cities movements provide a wealth of examples which illustrate how planners can bring people and place together in positive and heartful ways (see for

example, Frumkin, Frank and Jackson, 2004; Barton and Tsourou, 2000; Duhl and Sanchez, 1999). Historically, health and planning were closely related but it is only recently that this link has been revived in order to address disturbing increases in physical and psychological health problems in western developed nations. In particular, little participation in exercise, growing obesity rates and social isolation are concerning public health advocates who are looking to the built environment to change current behaviours. Working with planners, health professionals are advocating safer, compact and more pedestrian friendly cities to encourage walking and cycling as viable everyday transportation options for children and adults. The potential for planners to contribute to creating healthy urban places is considerable (Thompson, 2005) and this is an exciting area for students as they can work directly with local communities. Undertaking healthy city and safe city audits are easy field trips to organize and the teacher can readily draw on students' experiences to facilitate understandings.

It is likely that the healthy cities movement will become central to contemporary planning practice. This provides an enormous opportunity for planning educators to show their students the positive and heartful possibilities of the profession. These opportunities are related to what planning can do for people, as well as the ways in which planning can be a nurturing and sustaining career. I'd now like to turn to the notion of 'professionalism' in considering how we as educators can lay the foundations for our students to have sustaining career paths in planning.

**Professionalism**

The planner's skills are an evolving set of attributes needed to match the increasing complex task that constitutes planning today. The attributes outlined below are inter-related and inter-dependent. They are not an exhaustive list – rather, something to consider as part of the ongoing development of professional practice that is heartful, holistic and people focused. As educators we have a responsibility to develop these qualities in our students in a way that will nurture and sustain them in the challenging career that is contemporary planning.

*A comprehensively informed planner*

Today's planner must operate from a comprehensive, holistic, integrated and inter-disciplinary knowledge base. This necessitates being both locally and more broadly informed. That is, understanding the complexity of the local situation, as well as keeping abreast of current thinking and practice at the national and international scales.

The comprehensive planner appreciates and works with the ever-increasing inter-disciplinary and inter-related nature of the profession. She/he is attuned to the notion that planning is much more than the allocation of land to its most 'productive' use involving planning law, sustainable environmental principles and rigorous decision making processes. The comprehensive planner works competently and knowledgeably with these important skills, placing them within an overarching social and cultural frame. The core of his/her activities is the facilitation of socially sustainable people-place relationships in all their complexity and intrigue.

Ongoing, indeed life-long, professional education in practical skill development, new thinking and exposure to theoretical developments is part of the comprehensively informed planner's responsibility. It is our duty as educators to develop and nurture a positive attitude to, and an eagerness to participate in life-long professional development.

*A culturally sensitive planner*

The culturally sensitive planner actively and appropriately engages with the diverse communities that inhabit urban centers today. This practice is based upon a philosophy of social justice – protecting the interests of vulnerable groups and individuals by using non-discriminatory planning practices. Students need to develop an appreciation of the power balances within communities – who are the eventual 'losers' and 'winners' of planning decisions? They have to be challenged to consider their own power and privilege in relation to those for whom they will be planning. As educators, we need to ask 'How is this power reinforced by the use of technical jargon, policy terminology and an impatient demeanour?' The culturally aware planner works effectively and compassionately within the contemporary reality of complex and diverse communities.

*A reflective planner*

The reflective planner carefully and routinely considers the ways in which she/he practices her/his profession – its effectiveness and responsiveness. The reflective planner also considers his/her own personal responsibility and ethical behaviour. This is in the tradition of Donald Schon (1983). The reflective planner acknowledges her/his personal values and prejudices, not because these are necessarily 'right' or 'wrong', but because they exist and influence the way in which the world and people's behaviour within it are perceived. Personal positions impact upon professional responses as well as attitudes, values, beliefs, and moral and ethical stances brought to the planning office.

Ongoing professional education and personal development is part of the reflective planner's responsibility. As educators we need to be proactive in establishing mechanisms for this to occur. For example, mentoring schemes for students can assist their transition into the workplace and professional practice generally. A supportive mentor (someone in the academy or workplace) can help in the early days of building a career. Professional supervision as part of an on-going reflective practice is sorely lacking in planning. In supervision one can reflect on different aspects of professional life to a trusted senior colleague, seeking guidance about how best to handle difficult situations. Supervision can also extend to reflecting on the stress of professional life more broadly, as well as ways of managing high workloads, inter-personal relationships and achieving a reasonable life-work balance. Effective supervision plays a key role in sustaining professionals in their careers.

*A relational planner*

The relational planner has finely honed inter-personal skills and is comfortable working with people from all walks of life – from the community and professions. The relational planner does not shy away from dealing with conflict, especially when this challenges his/her own familial responses to anger and aggression. There is an awareness of his/her own psychology and development, and an acknowledgment that the personal does impact on professional actions. The relational planner is an holistic human being, with both

intellectual and emotional understandings. The relational planner constantly asks her/himself how her/his values and beliefs influence her/his attitudes and positions and the decisions that follow. He/she also examines the way in which his/her professional practice is embedded in wider societal values and norms and the assumptions upon which he/she operates. The relational planner has compassion and cares about the people for whom she/he is planning, honouring people-place relationships.

There is a growing awareness that to be a successful professional today much more than intellectual ability is necessary. Increasingly, the role of emotional intelligence in decision-making and individual success is being recognized as integral to all professional practice (Goleman, 1995). Emotional intelligence should be part of the planning curriculum, particularly in senior years.

*A facilitative planner*

The facilitative planner recognizes that she/he is no longer, if she/he ever was, **the** expert. This is linked to the emergence of diverse groups within the community and their accompanying world-views and ways of acting. It can be argued that these have always existed, but it is only recently that this multiplicity has begun to be acknowledged.

The facilitative planner respects the depth and breadth of local knowledge. This encompasses the community's understandings of its history and complex needs, as well as the right to be involved in planning local futures, whether this is taken up or not. The facilitative planner encourages people to tell their stories in ways that are meaningful to them. He/she takes these stories seriously, and is skilled in working with the diversity of opinions, attitudes and expectations which they embody. The facilitative planner is a good listener.

The facilitative planner also operates comfortably and competently across discipline boundaries, bringing the knowledge gained into her/his decision-making. She/he knows that she/he cannot work in isolation. The facilitative planner is part of a complex professional and lay community, paralleling an equally complex and inter-related world. It is the role of

the facilitative planner to draw on this complicated web, facilitating beneficial and appropriate outcomes.

*An entrepreneurial planner*

The entrepreneurial planner looks for opportunities to be creative, innovative and responsive to the particularities of each planning scenario. In working with communities, he/she looks for opportunities to bring conviviality and meaning to both the processes and outcomes of his endeavours. Processes such as community consultations can be fun and when they are, inevitably more people actively participate. Spaces that are celebrated and revered by the community are where people want to congregate, meet others and share. These are places where social capital has the potential to thrive and develop. The entrepreneurial planner works with communities to create such inclusive and welcoming places. They may accommodate permanent structures such as an interactive fountain in a pedestrian mall or a range of amusing sculptures in a neighbourhood park. They may be historical features that provide an important connection to a community's heritage, or a lively urban precinct where café tables spill out onto the street, serving wonderful food from different cultural traditions. Conviviality may also be found in temporary spaces like the street fair and festival, and the outdoor exhibition of local children's art work, song or dance. The entrepreneurial planner looks for ways to create spaces which are inviting for the community, where strangers come face-to-face and are encouraged to interact, and where there are possibilities for enjoyment and pleasure in the urban environment.

*A creative planner*

The creative planner is able to think laterally, welcomes non-traditional ideas and is unthreatened by the use of different ways of achieving planning outcomes. Thinkers such as Edward de Bono (2000; 1994) with his holistic methods for thinking ("Six Thinking Hats") and acting ("Six Action Shoes") offer interesting suggestions for the development of the creative planner which can be used in the experiential classroom workshop. De Bono's ways of thinking range from rational to emotive and intuitive. His modes of action range from formal processes to care and compassion, authority, leadership and

command. Landry and Bianchini (1995) also offer a wealth of practical ideas for educationalists in encouraging the development of creative planning approaches.

**Conclusion**

Today's planner is comprehensively skilled, reflective, culturally sensitive, relational, compassionate and caring, patient, ethical and responsive, facilitative, entrepreneurial and creative. Today's planner is open to new and different ideas, comfortable in a working partnership with fellow professionals and community members. Today's planner strives to create environments which have people's needs, dreams and hopes at their centre. These places sustain communities. They are well used, loved, respected and enjoyed by everyone. They nurture humanity and the deep need that we all have to connect with each other. These sustainable places are the proud legacy of the planner's work.

As educators it is our responsibility to develop these skills so that our students can meet the contemporary challenges of planning. Not only is this essential if they are to deliver sustainable, holistic, and human focused outcomes for the communities in their care, it is increasingly critical for their own personal survival in a profession that is demanding and at times, extremely stressful. It is incumbent on us to provide the foundational building blocks for our students to continually develop their professional skills and understandings. Educators have to take some responsibility for the current shortage of planners. It is not just the employers or professional institutes that should be blamed for those who depart the profession burnt out and demoralized. Sowing the seeds for an enthusiastic embrace of life-long learning, setting up mentoring schemes and encouraging professional supervision as part of reflective practice need to be part of what the planning educator does in his/her position as teacher, mentor and role model. This will mean that our students leave the academy with the foundational emotional and intellectual resources to build careers that are personally sustaining and nurturing.

**References and Resources**

In this 'References and Resources' list I include both material referred to in the text as well as resources I have found particularly helpful in the classroom. This is a starting point and no doubt you will have many others to add. Inevitably I draw on my own research in my education practice as this is familiar and provides immediate examples that I can use. I encourage you to draw on your research in similar ways.

*Overviews and principles*

Australian Bureau of Statistics (2004*)* **Measuring Social Capital: An Australian framework and indicators,** Canberra: Information Paper, ABS.

Cox, E. (1995) **A Truly Civil Society,** Sydney: ABC Books.

Hawkes, J. (2001) **The Fourth Pillar of Sustainability: Culture's essential role in public planning,** Victoria: Cultural Development Network.

Productivity Commission (2003) **Social Capital: Reviewing the concept and its policy implications,** Canberra Research Paper, AusInfo.

Short, J. (1989) **The Humane City: Cities as if people matter,** Oxford: Basil Blackwell.

*Professional skills*

de Bono, E. (2000; first published 1985) **Six Thinking Hats,** London: Penguin Books.

de Bono, E. (1994; first published 1991) **Six Action Shoes,** London: Harper Collins Business.

Goleman, D (1995) **Emotional Intelligence: Why it can matter more than IQ,** London: Bloomsbury.

Landry, C. and Bianchini, F. (1995) 'Creativity: Unleashing a resource for urban management', *Urban Futures*, Vol. 17: 53-67.

Schon, D. (1983) **The Reflective Practitioner: How professionals think in action,** USA: Basic Books.

*Practice manuals*

Grogan, D. and Mercer, C. with Engwicht, D. (1995) **The Cultural Planning Handbook: An essential Australian guide,** Sydney: Allen and Unwin.

Landry, C. (2000) **The Creative City: A toolkit for urban innovators**, London: Earthscan Publications.

Menzies, C. (1993) **Ground Rules: A social planning handbook for local government,** Sydney: Local Government Association of NSW Shires Association of NSW.

*Community consultation*

iPlan (2004), **Community Engagement in the NSW Planning System**, http://www.iplan.nsw.gov.au/engagement/index.jsp , NSW Government.

Sarkissian, W, Cook, A and Walsh, K (1997) **Community Participation in Practice: A practical guide,** Murdoch University, WA: Institute for Science and Technology Policy.

*Qualitative research*

Hay, I. (ed) (2000) **Qualitative Research Methods in Human Geography,** South Melbourne: Oxford University Press.

Lincoln, Y. and Guba, E. (1985) **Naturalistic Inquiry,** Beverly Hills: Sage Publications.

Minichiello, V., Aroni, R., Timewell, E. and Alexander, L. (1995*)* **In-Depth Interviewing: : Principles, techniques, analysis,** 2nd edition, Melbourne: Longman.

Morgan, D. and Krueger, R. (1998) **The Focus Group Kit,** Thousand Oaks: Sage.

Morse, Janice and Richards, Lyn (2002) **Readme First: For a user's guide to qualitative methods,** Thousand Oaks: Sage Publications.

Patton, M. (2002) **Qualitative Evaluation and Research Methods,** Third Edition, Thousand Oaks: Sage Publications.

*Healthy and safer cities*

Barton, H. and Tsourou, C. (2000) **Healthy Urban Planning**, London and New York: Spon Press.

Duhl, L.J. and Sanchez, A. K. (1999) **Healthy Cities and the City Planning Process: A background document on links between health and urban planning**, WHO, Regional Office for Europe [Available at http://www.who.dk/document/e67843.pdf]

Frumkin, H.; Frank, L. and Jackson, R. (2004) **Urban Sprawl and Public Health: Designing, planning and building for healthy communities**, Washington: Island Press.

Heart Foundation (2005) **Healthy by Design: A planners' guide to environments for active living,** www.heartfoundation.com.au/sepavic

Thompson, S. (2005) 'The Healthy Opportunity for the Planning Profession', presentation to the **Congestion and Connection Seminar: Health, Wellbeing & Sydney's Urban Planning**, Museum of Sydney, Sydney, 19 July 2005.

Victorian Local Government's web site on planning for healthy cities. http://www.health.vic.gov.au/localgov/index.htm

World Health Organisation's web site on healthy cities www.who.dk/healthy-cities

*The important of place*

Cilauro, S; Gleisner, T; Kennedy, J and Sitch, R (1997) **The Castle**, Video, Village Roadshow, Australia.

Cooper Marcus, C. (1995) **House as a Mirror of Self: Exploring the deeper meaning of home,** Berkeley: Conari Press.

Costi, A. and Bailey, A. (2003) **Relocated: A tribute to tenants - Kensington Pubic Housing Estate**, Melbourne: City of Melbourne.

Fried, M. (1963) 'Grieving for a Lost Home', in L. Duhl (ed.), **The Urban Condition,** New York: Basic Books.

Porteous, J. D. and Smith, S. E. (2001) **Domicide: The global destruction of home**, , Montreal and Kingston: McGill-Queens University Press.

Read, P. (1996) **Returning to Nothing: The meaning of lost places**, Cambridge: Cambridge University Press.

South Sydney Development Corporation (2001) **Everyone Knew Everyone: Histories and memories of Green Square**, Sydney: NSW Department of Urban Affairs and Planning.

Thompson, S. (2002) 'Meanings of Home: Developing a responsive and humane planning practice', *Plan Canada*, Vol. 42. No. 1: 13-15.

Thompson, S. (1993) 'Home: a window on the human face of planning', in R Freestone (ed), **Spirited Cities**, Sydney: Federation Press: 150-162.

Tuan, Y-F. (1977) **Space and place**, London:Edward Arnold.

*Cultural diversity*

Ang, I., Brand, J., Noble, G. and Wilding, D. (2002) *Living Diversity: Australia's multicultural future,* SBS, Sydney. [Also available at http://www.sbs.com.au/sbscorporate/index.html?id=547 ]

Bartolomei, L., Corkery, L., Judd, B. and Thompson, S. (2003) **A Bountiful Harvest: Community gardens and neighbourhood renewal in Waterloo,** Sydney: NSW Department of Housing and the University of NSW. [Also available at http://www.housing.nsw.gov.au/news_publications/reports_papers.htm]

Sandercock, L. (1998) **Towards Cosmopolis: Planning for multicultural cities**, John Wiley and Sons, Chichester.

Sandercock, L. (2003) **Cosmopolis II: Mongrel cities of the 21st Century**, London: Copntinuum.

Thompson, S. (2003) 'Planning and Multiculturalism: A Reflection on Australian local practice' *Planning Theory and Practice,* Vol. 4. No. 3: 275-293.

Thompson, S. (1994) 'Suburbs of Opportunity: The power of home for migrant women', in K. Gibson and S. Watson (eds.), **Metropolis Now: Planning and the Urban in Contemporary Australia**. Australia: Pluto Press: 33-45.

Thompson, S. (2005) 'Digestible Difference: Food, ethnicity and spatial claims in the city', in E. Guild and J. van Selm (eds) **International Migration and Security: Opportunities and Challenges**, London and New York: Routledge: 217-237.

# Towards a political ecology of urbanization: comments from a Brazilian experience

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**Towards a political ecology of urbanization: comments from a Brazilian experience**

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## Abstract

*The paper departs from two apparently different lines of argument, which, it will be argued, converge to the same point: the strengthening of political ecology of urbanization as an area of both academic research and urban/environmental practice and policy making.*

*The first line of argument discusses the present trends of urban planning in Brazil, and the extend to which they can point to social and environmental justice and equality, all of them values embodied in the concept of sustainability. Torn between two main political paradigms - competitiveness and/or solidarity – the field of planning and urban politics in Brazil, has also to overcome the ambiguities posed by its centralized comprehensive heritage (still very present in undergraduate education) and, at the same time has to consolidate the conquests represented by popular participation and political struggles over urban/environmental issues.*

*The second line of arguments questions theoretically the standard views of sustainability, arguing for an approach that favors the understanding of contentious urban questions arising from the use, regulation and appropriation of (natural) resources within a larger field of political economy/ecology of urbanisation. Harvey (1996), Peet & Watts (1995), Escobar (1995), among others provide some interesting theoretical basis for the discussion. Our recent research results (Costa, 2002; 2004) may provide some empirical support.*

*The second part of the paper will show some evidence of the ways in which the above-mentioned discussion is presently influencing the contents and methodologies of courses and research projects currently taking place at the Graduate Program in Geography of the Federal University of Minas Gerais, in Southeast Brazil. The Program has a rather flexible curriculum organized around the areas of Environmental Analysis and Organization of Space, and receives graduate students from different academic backgrounds - geography, biology, architecture, urbanism, law, social sciences, economics, history - looking for formation intended to go beyond the traditional modern dichotomies related to natural/social, urban/rural, technical/political boundaries. As a work-in-progress experience, it deserves constant evaluation.*

## Keywords

Urbanization, planning, environmental politics, political ecology, graduate courses

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## 1 - Present trends in urban planning and policies in Brazil

Urban politics and planning in Brazil for the last two decades is marked by the emergence of organized sectors of civil society who progressively reclaimed their roles as subjects. Both society and the state were substantially transformed in such process, and urban policies based on citizens' participation can be seen as an important and visible outcome. The extent to which they lead to social and environmental justice and equality, all of them values embodied in the concept of sustainability, is a permanent challenge to governments, planning professionals and social movements. Torn between two distinct political paradigms - competitiveness and/or solidarity – the field of planning and urban politics in Brazil, has also to overcome the ambiguities posed by its centralized comprehensive heritage (still very present in undergraduate education) and, at the same time has to consolidate the conquests represented by popular participation and political struggles over urban/environmental issues. The incomplete character of Brazilian urbanization - where several items of material reproduction, such as adequate housing, services and infrastructure are missing for a substantial part of the population – associated to intense urban/metropolitan concentration of population and economic activities throughout history are also a key element in the discussion around the sustainability.

*A brief overview of Brazilian urbanization*

Understanding the particularities of urbanization is an important way of defining the very notion of sustainability in the context we are referring to. This brings about the question of scales of approaching the reality. Dealing with relationship between population and environment, Martine (1992) establishes an hierarchy of environmental problems: the first level comprehend global problems that affect all societies, although not homogeneously, such as the loss of biodiversity, green house effect, depletion of the ozone layer, toxic waste, among others. Their origins, except for the question of biodiversity, are closely associated to the pattern of development (production and consumption) of industrialized countries, are a product of capitalist modernity. The second level of environmental problems comprises questions related to lack of adequate

conditions of urban reproduction in terms of basic sanitation, health, adequate housing, and the like. They are most strongly related to the patterns of urbanization particularly in the so-called third world, and can be resolved through the adoption of urban and social public policies, and strong and widespread investments in the built environment. Such a view reinforces the role of urban policies and planning directed to social and environmental justice and also represents a constant challenge to planning education and research. In this sense, analysing the Brazilian experience requires a previous understanding of both our planning trajectory together and the specificities of urbanization.

From the viewpoint of the urban network, Brazil's contemporary urbanization presents a pattern of increasingly high urbanization rates in all regions, with a national average of urban population of 81.23% of the total in 2000, and concentration of urban population and metropolitan areas[2] in the Southeast region where urbanization levels rise to 90.52%. In terms of spatial configuration, population is distributed in diverse and complex spatialities at local, regional and national levels, reinforcing a multi-centered urban network Such levels of urbanization "are the material expression of decades of high and increasing urban growth rates until the early eighties, in rhythms and intensities that vary according to the larger process of regional extension of urban-industrial capitalist relations of production throughout Brazil" (Costa; Monte-Mór, 2002: 130).

As a general overview, it could be said that:

> "The eighties and the nineties were marked by a decreasing rhythm of population concentration in urban agglomerations and a de-concentration over medium-size cities and even over small towns articulated in local and/or micro-regional sub-systems. In fact, spatial economic restructuring had made it possible for industry to locate anywhere where the basic conditions of production existed whereas metropolitan industrial losses to middle-size cities and smaller towns reflected growing agglomeration diseconomies and spatial fluidity. Both tendencies point toward a growing complexity in the urban

[2] Brazil's legal account of urban population encompasses residents in *cities/towns (*heads of municipalities) and *villages (*heads of municipal districts).

network in which affluence and social inequality can be identified in all urban settlement patterns, thus extending typically *urban problems* to the country as a whole" (Costa; Monte-Mór, 2002: 130-132).

In 1999, twelve metropolitan agglomerations (200 municipalities) responded for 33.6% (52.7 million inhabitants) of the country's population; thirty-seven other urban agglomerations (178 municipalities) comprised other 13.1% (20.6 million inhabitants), and sixty two isolated urban centers with population of over 100.000 represented 8.5% (13.3 million people) of the total population (Ipea/Unicamp/Ibge, 1999).

In terms the characteristics of the urban areas, the large congested city appears as the "archetype of third world urbanization". In fact our urban experience points to decades of production of the built environment with little concern for both the natural resources and for highly unequal socio–economic structure, evidenced by appalling levels of income concentration and exclusion of the poor. In fact, as we argued "particularly within our hegemonic modernist tradition ranging from architecture and engineering to comprehensive urban planning, criteria of functionality and efficiency have always prevailed, in order to guarantee the minimum necessary conditions of (industrial) production, at the expenses of enlarged social reproduction" (idem, p. 134).

Low quality of the built environment and lack of social and environmental justice are two important element to be apprehended when considering Brazilian urbanization. The outcomes were massive urban migration, informal processes of land occupation, squatter settlements, extensive land developments, and social struggles for the extension of minimum conditions of urbanity for the majority of the population. The prevailing logic of the property market reproduces a pattern of social-spatial segregation where more densely built well-equipped and highly valued central areas contrast with low environmental quality areas expressing various levels of legality and informality. Neither central areas nor peripheral ones[3] are homogeneous: many squatter settlements, slums

[3] The peripheral urban growth pattern typical of Brazilian urbanization was the outcome of continuous land development directed to the low-income sectors of the population. It was not a *spontaneous informal* process, but derives from systematic state absence in public housing provision in a context of structural economic exclusion, and also from the rationality of a particular fraction of property capital, whose

and other forms of developments present different legal status, and various levels of urbanization investments. Some involve considerable risks for the population, others experience conflicts related to private/public rights over land tenure, some have already experienced public intervention eventually including land ownership rights, most have locally based organizations struggling for their share of state intervention in basic urban services.

In recent years there has been a substantial change of perspective in the focus of urban investments and planning, mainly as a response to decades of struggle of urban social movements around issues of housing, sanitation, transportation, and other items of everyday life. Popular participation changed planning in multiple ways as pointed briefly in the following section. The remaining question is: to what extent planning ideas and planning education has followed the changes produced by urban planning practice?

*Urban planning and policy in contemporary Brazil: the merge of different traditions*

Contemporary urban planning and policy making are formed by two traditions: the planning tradition as inherited from the international experience and learned in planning schools, and the emergence and consolidation of urban social movements.

Planning tradition evolves from a long history, originally based on modernist ideas which reached fertile ground in Brazilian architecture, in the planning of new cities, followed by popular housing sites projects, and comprehensive/functionalist planning financed and promoted by the state. The characteristics of such model, hegemonic in Brazilian planning experience from mid-sixties to mid-eighties, can be summarized as follows:

- emphasis on technical knowledge and power – professional expertise is seen as the sole source of ideas to orient private and public intervention. Technocracy and authoritarianism were widespread, particularly during the seventies. Planning was seen as an state imposition, and even today most criticisms associate comprehensive planning with the military regime

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product, the popular plot, embodies the least investments possible in order to be affordable by the largest share of the population (Costa, 1994; Torres and Oliveira, 2001).

- the plan is seen as the main product, usually a Master Plan, and not a long term planning process
- centralization of decisions and resources particularly at the national level, the state at the local and regional levels lacked financial resources and autonomy of decision
- uniformity of methodology established as urban policy in the 70's [4]
- lack of means of implementation of proposals – plans produced ideal proposals very far away from the financial, economic and political reality of local governments, the level responsible for implementation
- idealized urban "order" and design – the model was based on an ideal city and its functionality
- broad evaluation of urban problems – during the seventies, a vast array of plans produced substantial knowledge of urban problems in many areas
- geared to state intervention, most propositions in the plan based solely on state action and policies, with little participation of other social agents
- lack of popular participation – the authoritarian regime particularly during the mid sixties to mid-eighties avoided all forms of participation in the planning process
- no place for "informal" or "disorganized" aspects of urban dynamics, that is, the majority of the population was not reached by planning; the dichotomies legal-illegal, formal-informal, planned-spontaneous were reinforced. The existence of informal areas is usually seen as a result of lack of planning and not linked to more structural origins.

If we can refer to the Brazilian urbanization as incomplete, inasmuch as several items of infrastructure and services are missing, similarly planning is very often also incomplete, because it usually lacks the necessary institutional and political strength to guarantee planning regulation even for the formal/legal urban developments. With heroic exceptions, private (property) interest usually prevails over public interest. On the other

[4] The SERFHAU, Serviço Federal de Habitação e Urbanismo, a part of Home Ministry, became responsible for the diffusion of a methodology for Local Development Plans, a precondition for local administrations to have access to urban financing schemes.

hand, for the majority of population, urban planning is an abstract idea with very little reference to their everyday concerns or needs. The disadjustment between ideas and reality, between planning and urban experience, is very well expressed by the title of an article by Maricato (2000): "the ideas out of place and the place outside the ideas", contrasting on the one hand the acritical import of planning models, values and designs from the advanced societies, and on the other hand the widespread pattern of production of urban peripheries, resulting in incomplete urbanization[5].not necessarily illegal, but certainly outside the prevailing formalities of urban regulation.

With the worldwide crisis of comprehensive planning, associated to the deeper crisis of capitalist modernity, new alternatives are pursued. Some of them attempt to add the practice of collective action to the accumulated knowledge of planning (Friedmann, 1992; Soja, 1997).

The second tradition comes from the popular movements which, since the late seventies and early eighties, managed to bring their demands to the public arena. It became clear that the state was unable to provide minimum standards of urbanity and living conditions for most of the population. Initially organized to protest, urban social movements progressively evolve towards greater autonomy of action. In such tradition participation is a priority and technical knowledge is perceived as secondary, at least in its early phases.

The state, initially seen as the enemy, gradually becomes a partner, as far as urban social policies are concerned. Planning and popular participation discourses begin to amalgamate, particularly in the nineties, under the presence of a new constitution (1988), when a rejuvenating era of urban regulation spreads trough local governments. At the same time planning, particularly at the local level, begins to incorporate what has been called the "real city", that is the totality of urban settlements, with there inequalities and differences, formal or informal, slums, peripheral developments, etc…

[5] In Brazil, the development of a site doesn't necessarily imply the construction of the houses. There are different social agents involved in the development of the plot, the provision of infrastructure, and the construction (either by the dweller or a firm). Each phase can occur in different timings, reinforcing the idea of incompleteness, of urban landscapes in permanent process of transformation. Also, it allows a very

It seems clear, however that planning itself has changed substantially since bureaucratic functionalist planning has suffered widespread criticism for more than a decade from now. Participatory schemes and strategies have appeared as a reaction to conventional planning and have systematically denied it. A third phase is now taking place, where many urban and also environmental policies are assuming popular participation as one of their methodological and political criteria. Many collegiate instances of decision were formed in several areas: collegiate councils, participatory budgeting, urbanization of irregular areas and slums, community administered housing policies, are some of the fruitful exemples of new urban policies in the last decade. The creation of a Ministry of Cities, backed up by social movements that have been active during the last twenty years is an evidence of the recently adquired, although rather fragile, importance of urban politics. Planning is reemerging as a public (and private) activity in newer and less dogmatic basis.

The need to focus on specific areas of intervention and/or sectors of activity, instead of attempting to encompass the totality is the rationale behind the so-called strategic planning, the other outcome of the new phase of planning. The appropriation of such discourse by local governments and planning professionals has produced a very powerful defense of cities as actors deciding their destinies in a global competitive arena. Big urban projects and design take place of planning as a routine activity. Urban marketing and urban renewal of central areas are the most visible face of strategic planning, giving rise to criticism due to questions of gentrification and market oriented logic of most interventions and projects[6].

*The emergence of environmental concerns and planning*[7].

In this section we present a brief review of the debate around the notion of sustainability, arguing for an approach that favors the understanding of contentious urban questions arising from the use, regulation and appropriation of (natural) resources within a larger

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extensive pattern of land occupation, where plots remain empty for many years, while farther areas continue to be developed.

[6] There is an intense debate around strategic planning, their models and elitist character, which will not be considered in this paper. See Vainer (2000) for a broad criticism of strategic planning .

[7] This section is partly based on Costa and Costa (2001).

field of urban and environmental politics. Our argument is that it constitutes a move towards a political ecology of urbanization.

Since the seventies, environmental thought has emerged and spread through various social movements, academic studies or policy-making processes. Its evolution followed many different paths, such as: from a general concern about nature and the need to protect so-called natural spaces from the continuous advance of urban-industrial relations of production towards a profound discussion around the concept of development and the challenge of sustainability[8]. It supported both local protests around environmental accidents (Hogan, 1989) to broad movements organised around socio-environmental conflicts and justice (Harvey, 1996, Viola; Leis, 1992). Initially oriented by clear anti-urban bias of radical ecology and neo-Malthusian approaches claiming for population control, environmental concerns reached planning and public policy-making, redefining of agendas at various scales, with especial emphasis to the local level (Agenda 21, Habitat II or Cairo Population conference, among others).

Besides a plurality of positions, there is a great deal of ambiguity embodied in the apparent consensus of the environment discourse. The imprecise and unproblematic character of the official UN definition of sustainable development, based on a generic intergenerational equity indicates that the core of capitalist contradictions, related both to patterns of production and consumption, and to power relations in global terms, are not questioned. As many authors have pointed out in a number of ways, what is at stake is the extent to which modernity is accepted or questioned as a development project for the future.

The idealisation of untouched nature (Diegues, 1994), or modernity in general, produced values and cultural references separating society from nature. Some authors question present day modernity when compared to the promise of inclusion and freedom from the constraints of nature present in its original project (Norgaard, 1994). Others refer to nature, redefined as 'environment', captured by capital (Escobar, 1996), or as 'natural

[8] Peet and Watts (1996) provide an interesting critical overview of the international literature on development and sustainability, while Colby (1990) as early as the end of the eighties, produced a useful framework for evaluation of different paradigms of environmental management.

resources. The transformation of nature's use value in exchange value, extending to natural resources the rationality of market mechanisms (taxation of the use of natural resources, polluter-payer schemes, evaluation of natural assets) constitutes the basis for propositions in the growing area of environmental economics. The critique of such internalisation of nature by capital as an essential element of contemporary capitalist reproduction, derived from the post-structuralism, emphasises the imposition of western capitalism as the hegemonic form of development. Sustainability is therefore its legitimising discourse articulating nature, modernity and capitalism (Escobar, 1996; Leff, 1998).

The empowering capacity of environmental issues is present in the concepts of 'liberation ecologies' (Peet and Watts, 1996)[9] and in environmental justice movement. The environmental question is not only a matter of preservation, but also an issue of distribution and justice, articulating "popular struggles around social and human rights, collective life quality and environmental sustainability"[10]. From that standpoint, contemporary urban practice and intervention in Brazil, has been marked by the convergence of social and environmental issues, mediated by urban planning, and struggles around social/environmental disputes. Social movements organised to demand access to the benefits of urbanization, reaffirm the centrality of the 'urban question'[11], now redefined as socio-environmental; urban planning is progressively introducing environmental criteria in their policies and proposals; political involvement based on issues of citizenship and justice necessarily amalgamate social and environmental inequalities expressed in the extended urbanised areas. Also, at the level of regulation, there is a wide range of collegiate instances of state/society participation and decision-

[9] It derives from three traditions: the Marxist concept of consciousness, post-structural ideas about imagination and discourse, and some aspects of environmental determinism from early modern geography (Peet and Watts, 1996, p. 37). It aims to produce a consistent debate around modernity, its institutions and knowledge, to explore the notion of "everyday resistance" embodied in social movements, to reinforce the contradictory character of society-nature relations, in which dialectics "remain a compelling theory of contradiction, crisis and change" (p. 38).

[10] Those are the terms of a recent Statement issued at an international congress on environmental justice (Colóquio Internacional sobre Justiça Ambiental, Trabalho e Cidadania, Niterói, Brazil, September 2001).

[11] And as such expressing the gap between third world urbanization and that of industrialized societies, where there is generalized access to formal urbanization provided with basic infrastructure and housing.

making, which are creating new political territorialities to negotiate environmental conflicts.

In spite of all that, environmental discourse and thought is not very much concerned about the spatial dimensions of the questions addressed, or with urbanization in general. And yet, we want to argue that such dimension is not only central but is latent in some of the approaches. In fact, even after years of debate, it is hard to find a consistent theoretical attempt to put together environmental and urban/social formulations. The idea of building up a political ecology of urbanization is a promising theoretical challenge. Furthermore, and as a consequence of the focus on practice and social change, the especificities of both urbanization and the context in which urban and environmental policies are formulated in Brazil have also to be taken into account. Therefore we focus our work within the realm of academy, teaching courses, supervising graduate students, and doing research is oriented towards the understanding of a political ecology of urbanization in general and with emphasis on Brazil

**2 – The experience of the Graduate Program in Geography - IGC/UFMG**

Planning in Brazil is not a profession that needs formal accreditation, such as architecture, engineering, or law. It is rather an activity performed by different professional formations: sociologists, economists, architects, geographers, lawyers, engineers, biologists among others. As a consequence, there are no undergraduate planning schools, although some undergraduate programs – architecture is a good example - have a great deal of planning in their courses. At graduate level, many programs and research areas deal with questions related to planning or environment, but only a few define planning as their main area of concentration[12]. As an example, ANPUR – the National Association of Graduate Programs and Research in Urban and Regional Planning - has presently 47 institutional members, but only 20% of them are classified in the area of concentration of Urban and Regional Planning. Around five other planning

[12] Area of concentration is a formal expression used by education/research boards in Brazil to define in which field of knowledge academic programs, research projects, dissertations, papers, and like concentrate their approach. Urban and Regional Planning; Architecture and Urbanism; Geography, are examples of areas of concentration.

programs within that area of concentration and outside ANPUR complete the country's picture. As none of those programs are located in the State of Minas Gerais, planning is discussed and taught in few programs of different knowledge areas.

During the last decade the Graduate Program in Geography at the Federal University of Minas Gerais in Southeast Brazil, is progressively consolidating urban and environmental planning and analysis as an important area of teaching and research. The Program has a rather flexible curriculum organized around the areas of Environmental Analysis and Organization of Space, and receives graduate students from different academic backgrounds - geography, biology, architecture, urbanism, law, social sciences, economics, history - looking for formation intended to go beyond the disciplinary approaches of their own formation.

The discussion outlined in the first part of the paper has significantly influenced the contents and methodologies of courses and research projects currently taking place at the Graduate Program in Geography. Geography is a field of knowledge that has an inherent need to go beyond many disciplinary frontiers, as it deals with space in multiple ways. On day to day basis, it is always challenged by the need to bridge the gap between the so-called Physical and Human Geography, a task yet to be completed.

On the other hand, planning itself requires multiple approaches and disciplinary backgrounds. The emergence of the environmental question in recent years contributed substantially to add complexity to the requirements of graduate education and research in such field. The notion of a political ecology of urbanization, as discussed in part one is an attempt to name an area of inquiry that benefits from the political economy of urbanization approach, incorporating also the environmental debate, urban/environmental politics and the regulatory approach through urban/environmental policies and planning[13]. It aims to go beyond traditional modern dichotomies related to natural/social, urban/rural, technical/political boundaries.

[13] The formulation derives from Peet and Watts' original notion of liberation ecologies (1996), to which a have added an urbanization approach, with emphasis on the specificities of Brazilian urbanization. It is the outcome of a period I spent as Visiting Scholar at the Geography Department at the University of California at Berkeley, having Michael Watts as sponsor.

To cope with such hard task, some courses were introduced in the Program Curriculum in its most recent revision[14]. Two regular courses provide the basic contents: *Population, Space and Environment* during the first term, and *Urban-Environmental Planning and Governance (Gestão)* during the second term. Both courses were first offered on experimental basis, before reaching their present status in the 2001 Curriculum. Since then, there has always been a huge demand for attendance to them, both from regular graduate students and from society in general. Its quite usual to have an average of fifty applications to attend *Population, Space and Environment* as 'isolated course'[15], and around thirty applications for *Urban-Environmental Planning and Governance.* Such figures suggest that there is a large gap to be filled in the formation of professionals and academics prepared to deal with urban/environmental questions as formulated previously. Another evidence of such demand is the variety of undergraduate formation of our graduate candidates, resulting in an eclectic group of students, benefiting from each other's experiences..

Two other courses were recently created to deepen the discussion initiated in the above-mentioned courses: *Urbanization, Nature and Social Production of Space,* was first offered in 2005, departing from a Lefebvrian approach and aiming at exploring the relationship between theoretical formulations and actual empirical research results. It involved faculty and their research developed within two graduate programs in geography from two universities: ours in Minas Gerais, and the UFF – Fluminense Federal University in the State of Rio de Janeiro. The idea is to offer the same course in both universities, with faculty travelling occasionally, and students getting together in a common fieldwork. So far, a first experiment was made this year with promising results, and the field work is planned to be added in the next edition of the course.

The second new course, *Advanced Topics: Readings in Political Ecology,* is geared towards doctoral students only, and designed to emphasize theoretical discussions to help students to develop their theses. The content deals with political ecology from a social

[14] In 2003 the Graduate Program in Geography was reformulated to include the doctoral degree. From its creation in 1988 until then, it offered only a Master's Degree in Geography.

sciences perspective. Contemporary discourses on nature and development are reviewed based on the contribution of Harvey, Escobar, Peet, Watts, Leff, Swyngedouwn, among others.

Besides the taught courses, students'research work developed in theses and dissertations are beginning to be influenced by such conceptual framework. Naturally, our own research results are embedded in them. Although still quite modest, the results can be considered as very promising as a means of building a more complex and critical understanding of reality.

**Bibliographical References**


COLBY, M. (1990) **Environmental management in development: the evolution of paradigms.** World Bank discussion paper 80.

COSTA, H. (2000) 'Desenvolvimento urbano sustentável: uma contradição de termos?', *Revista Brasileira de Estudos Urbanos e Regionais*, No. 2: 55-71.

COSTA, H. (1994) 'Habitação e produção do espaço em Belo Horizonte' in R. MONTE-MÓR **Belo Horizonte: espaços e tempos em construção**, Belo Horizonte: PBH/ CEDEPLAR/UFMG, pp: 51-77.

COSTA, H. and COSTA, G. (2001) 'Urban analysis and praxis redefined: contributions of the theory of space and environmental thought', paper presented at the **International Seminar on Economy and Space**, Ouro Preto: CEDEPLAR/UFMG

COSTA, H. and MONTE-MÓR, R. (2002) 'Urbanization and environment' in D. HOGAN, E. BERQUÓ and H. COSTA **Population and Environment in Brazil: Rio + 10**, Campinas: CNPD/ABEP/NEPO, pp: 127–146.

DIEGUES, A.C. (1994) **O mito moderno da natureza intocada**, São Paulo: Edusp.

ESCOBAR, A. (1996) 'Constructing nature. Elements for a poststructural political ecology' in R. Peet and M. Watts **Liberation ecologies. Environment, development, social movement**, London & New York: Routledge.

FRIEDMANN, J. (1992) 'Planificación para el siglo XXI: El desafio del posmodernismo', *Revista EURE*, Vol. XVIII. No.55: 79-89.

HARVEY, D. (1996) **Justice, nature & the geography of difference**, London: Blackwell.

HOGAN, D. (1989) **População e meio ambiente**, Campinas. Textos Nepo 16.

IPEA/UNICAMP/IBGE (1999) **Características e tendências da rede urbana no Brasil**, São Paulo: IPEA/UNICAMP/IBGE.


[15] Any person with undergraduate degree may apply for attending graduate courses in public (federal) university, provided there are vacancies. In our Program, selection is made by faculty responsible for each course.

LEFF, E. (1998) **Saber ambiental: sustentabilidad, racionalidad, complejidad, poder**, Mexico: Siglo Veintiuno Editores.

MARICATO, E. (2000) 'As idéias fora do lugar e o lugar fora das idéias'in O. ARANTES et al. **A cidade do pensamento único: desmanchando consensos**, Petrópolis: Vozes, pp: 121-192.

MARTINE, G. (1993) **População e meio ambiente. Verdades e contradições**, Campinas: Editora da UNICAMP.

NORGAARD, R. (1994) **Development betrayed. The end of progress and a coevolutionary revisioning of the future**, London & New York: Routledge.

PEET, R.; WATTS, M. (1996) **Liberation ecologies. Environment, development, social movements**, London & New York: Routledge.

SOJA, E. (1997) 'Planning in/for postmodernity' in G. BENKO and V. STROHMAYER **Space and social theory,** Blackwell Publishers.

TORRES, H. and OLIVEIRA, M.A. (2001) 'Quatro imagens da periferia paulistana', *Espaço & Debates*, No. 42: 64-69.

VAINER, C. (2000) 'Pátria, empresa e mercadoria' in O. ARANTES et al. **A cidade do pensamento único: desmanchando consensos**, Petrópolis: Vozes, pp: 121-192.

VIOLA, E.; LEIS, H. (1992) 'A evolução das políticas ambientais no Brasil, 1971-1991: do bissetorialismo preservacionista para o multissetorialismo orientado para o desenvolvimento sustentável' in D. Hogan and P. Vieira **Dilemas sócio-ambientais e desenvolvimento sustentável**, Campinas: Editora da UNICAMP.

# The Challenges of Education for Sustainable Development and Planning in Small Island Developing Countries of the South Pacific – A case study of the University of the South Pacific

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*Abstract*

*Education for sustainable development is a life-wide and life long endeavour which challenge individuals, institutions and societies to view tomorrow as a day that belong to all of us, or it will not belong to anyone. While there is no universal model of education for sustainable development the goal emphasis and process must therefore be locally defined its own priorities and action. In the Small Island Developing States (SIDS) of the South Pacific sustainability is a complex goal. It requires multidisciplinary strategies taking into account of social and cultural, as well as ecological and economic factors. The size of these island nations brings particular risks for communities. Educational institutions have important roles in bringing understanding of threats to sustainability and helping devising strategies to address these threats. In this paper I will look at ways in which University of the South Pacific have adopted policies and strategies and in particular how the new major in Land Use Planning curricula have adopted planning and sustainability.*

*Keywords:* sustainable development, Small Island Developing Countries (SIDC), multidisciplinary, strategies, education, institutions, planning, University of the South Pacific (USP), Land Management Department (LMD), Land Use Planning, School of Social and Economic Development (SSED), Education for Sustainable Development (ESD).

## Introduction

"Education for sustainable development is a life-wide and lifelong endeavour which challenges individuals, institutions and societies to view tomorrow as a day that belongs to all of us, or it will not belong to anyone."[1] Graduates of universities, technical and vocational institutions have a crucial role in making policies, inventing and implementing practical solutions to current problems such as environmental degradation and Graduates should therefore be aware of the concept and challenge of sustainable development. They represent the interface between nature, technology, economy and society, with a key role to play in helping society resolve environmental and development issues. The main concern is improvement of the quality of life through efficient production and rational use of natural resources.

[1] http://potal.unesco.org/education/en/ev.php-URL_ID

Two of the major issues in international dialogue on sustainability are population growth and resource consumption. Increases in population and resource use are thought to jeopardise a sustainable future, and education is linked both to fertility rate and resource consumption. Educating females reduces pregnancy and therefore by implication limits population growth. By reducing pregnancy rates and the threat of overpopulation, a country also facilitates progress toward sustainability. The opposite is true for the relationship between education and resource use. Generally, more highly educated people, who have higher incomes, consume more resources than poorly educated people, who have lower income. In this case, increase wealth increases the threat to sustainability.

**Justification**

The concept of education for sustainability in planning has a lot of benefits. All of these benefits are crucial for the sustainable developments of Small Island Developing States (SIDS). These include the quality of life, decision making, implementation and planning.

*Quality of Life*

Education and planning are central to improving the quality of life. Education has the potential to raise economic status of families, it improves life conditions, lowers infant mortality and improves the education attainment of the next generation, thereby raising the next generation chance of economic, environmental and social well being. Improved education holds both individuals and national implications. Basic education can improve the quality of life, technical and tertiary education can contribute to this improvement because economic improvement is greatly enhanced. Quality of life is achieved through efficient production and rational use of natural resources. In SIDS efficient production is hard to achieve for a number of reasons:

> In many cases, failures in the private, social and even spiritual sectors have not occurred through lack of human capacity, or knowledge, nor of objectives and missions, but rather low productivity, inefficiency and corruption.[2]
>
> Ultimately, the success of a local environmental management plan or programme will depend on the lifestyles choices adopted by the community and the value they place on the environmental resources they consume[3].

[2] USP, (2000) Draft Consultative Reports; Background Papers;p20
[3] GDRC, (2005) The Seven Triads of Sustainability-Lifestyles

*Decision-Making*

Good community based decisions, which will affect social, economic and environmental well being also depended on educated citizens. Development options, especially greener development options, expand as education increases. For example, an educated community may either support or oppose an office development nearby. They would assess it on the basis of its impact on the environment. Citizens can also act to protect their communities by analysing reports and data that address community issues and help shape the community response. Based on the quality of their data and information answered, community would support or oppose a proposed hotel development.

*Implementation*

An educated citizen is vital to implementing informed and sustainable developments. In fact, a national sustainability plan can be enhanced or limited by the level of education obtained by the population. Nations with high illiteracy rates and unskilled workforce have fewer development options. For the most part, these nations are forced to buy energy and import manufactured goods from the international market using hard currency. To acquire hard currency, these countries need international trade, usually this leads to exploitation of their natural resources like forests or fish, or conversion of land from self sufficient family based farming to cash-crop agriculture. An educated workforce is the key to moving beyond an extractive agriculture economy.

*Planning*

Planning seeks to achieve a quality of life and environment, which we all aspire to but which cannot be attained through the fragmented decisions of individuals. In other words, to achieve the desired quality of life the planning agencies and all stakeholders would have to implement macro plans, while at the same time they should collectively possess the qualities of a good decision maker. Planning and the concept of sustainability are both important topics in university education. They complement one another. In fact both aim to achieve a better social, economic and environmental well being for communities.

Planning education issues include the content of planning courses, the delivery of planning education, planning as a profession and intellectual discipline, knowledge and skills, practice, contemporary challenges and policy changes.

There are many and varied key issues related to the sustainable development of SIDS. Some of these are dealt with in courses offered by various Departments at the Universities. However for the purposes of planning education the key issues of sustainable development that affect Small Islands Developing States (SIDC) include, poor performance of the economy, high population growth rates, poverty, remoteness and isolation, openness, susceptibility to natural disasters and environmental change, limited diversification, limited capacity, income volatility, access to external capital and environmental degradation. Nearly all of these issues are dealt with in programmes that deal with sustainability.

**Literature Review**

The intellectual basis for planning was grounded on social reform:

> This disposition of the town and exploitation of the industrial labour force did not go entirely unheeded. The century was distinguished by a number of 'utopian socialists', a term coined by Karl Marx to describe a group of social thinkers whose attitude was unscientific and idealistic and who hoped to improve working–class conditions by individual benevolence, philanthropy and enterprise. These reformers concentrated on the development of separate new communities outside urban areas, there emerged a succession of plans based on a variety of political, social and philosophical ideas[4]

There is little doubt that systems of spatial planning in some form or the other will continue to be needed by society. There are two main reasons for this. First, the continued urbanisation of the world's population, and second, the challenge of sustainability and environmental change.

In addition there are three fundamental reasons why students choose to pursue planning course at university:

- they have an interest in understanding and shaping environments in many forms;
- employability and future job prospects; and

[4] John Ratcliffe,1981 p 36

- the diversity of topics covered in planning education.

  *'That what is attracting students to planning is the possibility to develop skills and the knowledge base necessary to become pro-active in the planning and creative management of urban and rural resources. The career orientated nature of the subject and the acquisition of broad range of transferable skills which are fundamental elements of this multi-disciplinary subject also seem to be important attractions'.*[5]

Two issues that are particularly relevant to the profession are changes in government (in the context of its relation with the market and the fragmentation of the public interest) and the growing emphasis on individual rights.[6] This development was reiterated in the literature, 'Readings in Planning Theory', (1996). "A planner no longer owes loyalty to the public at large".[7]

Moreover, the content of planning education is an area that has been widely discussed and debated by professional institutes, professionals and academics. Part of the debate is about whether they need to broaden the courses and also includes the issue of core or specialised courses. In the UK, most planning schools in their submission to the Royal Town Planning Institute Education Commission stated that they embrace and support the broadening out of courses in planning education. There is also some desire to increase flexibility in the content of courses. New areas that have been recommended include urban design and sustainability. This also raises the question on core and specialised studies. Some schools advocate a more flexible approach with a severely reduced emphasis on core subjects.

Most important of all, the intellectual basis for planning is not well defined and is subject to some continued disagreement. The main contenders are policy co-ordination/urban management and environment management. Critics have suggested that planning expertise centred simply on knowledge and skills in managing statutory planning system. In many Western European countries where there are no strong separate planning professions, there is more distinction of the different types of planner, especially in the separation of policy experts with their base in urban and regional geography and the urbanists with their base in architecture and urban design.

[5] Brown,C;Claydon, J;Nadin, V; p2 (2002), Background Paper 3- Educational Process p2
[6] ibid Background Paper 2 Planning, Planners and Professionalisn, p7
[7] Campbell, S; & Fainstein S; (1996) Readings Planning Theory p 45

Moreover, an important part of higher education is the contribution to society that comes through the production and dissemination of knowledge. Understanding the "how" and "what" the planning system contributes to sustainable development is not only important to practitioners but for wider society too.[8]

**Methodology**

A qualitative approach was used in trying to answer the research question posed in this essay. In doing this investigation also encompasses on the role of the USP as a major provider of higher education, and in particular in meeting the needs of the member countries through its policies particularly on sustainable development. The author is of the opinion that the wider role of the University should also be investigated because it sets the framework of high priority areas through its Vision, Mission and Strategies. Academic Departments on the other hand are responsible for the implementation of these strategies. For the purpose of this paper, in addition to the role of the USP, the role and functions of the Department of LMD was also fully investigated.

**Data Analysis**

*The University of the South Pacific.*

Established in 1968, the USP is a unique regional university serving the needs of 12 Pacific Island Countries (PICs)[9]. Under its Charter, the University's mission is:

> …the maintenance, advancement and dissemination of knowledge by teaching, consultancy and research and otherwise for the provision of appropriate levels of education and training responsive to the well being and needs of the communities in the South Pacific…(USP Charter, 1968).

With its member countries, many of them SIDS, spread over one third of the Pacific Ocean. USP has served its region for over 35 years and established a sound reputation. USP has produced many of the graduates who are now leaders in many fields in their own home countries.

The key aim of the University is to provide both teaching and research that is of high quality and is internationally recognised. One of the key areas of challenge is in the

[8] Brown,C; Clayton , J; Nadin, V; (2002), Background Paper 2 p8

[9] Cook Islands,Fiji, Kiribati,Marshall Islands,Nauru, Niue,Samoa, Solmon Islands, Tokelau,Tonga,Tuvalu & Vanuatu

Environment. SIDS experience levels of environmental risk that are rare in large countries e.g. cyclone, tsunami, geothermal activity, earthquakes etc. In part this is a simple consequence of small size whereby a single natural event can bring damage across virtually a whole country and risk pooling at national level is often not feasible. There are now serious concern that global climate change is leading to rising sea level and greater frequency of tropical cyclones in parts of the region. Atoll states are particularly at risk but so are important coastal areas of larger island countries. Damaging human impacts on marine and terrestrial environments have been increasing and the need to foster more sustainable forms of development is recognised by governments. In its objective, the University will " *regularly review of academic programmes and research, taking into account quality, relevance, need and feasibility"* [10]

In addition, in developing action plans the USP recognises the constraints of finance and other resources at its disposal. It fosters academic work within its area of current and developing competence to meet the broad policy priorities of member countries, which at present are:

- Economic development
- Socio-cultural developments
- Governance and law and order
- Science
- Environment
- Information and communication technology

Close attention is being given to allocating priority to other specific areas, including studies of environment and sustainable development, building on existing strengths in several schools and the establishment of the Pacific Centre of Environment and Sustainable Development (PACE_SD) in 2001. Endorsing the view that good education is the foundation for enlightened planning, decision making, action and codes of behaviour required for the conservation and sustainable use of natural resources, USP has been actively pursuing a policy to promote both formal and non-

[10] USP, (2000) Draft Consultative Report p27

formal environmental education. The degree, diploma and certificate programmes in this area include:

- BSc degrees in Environmental Science with Geography, Biology, Chemistry, Physics and Earth Science as core disciplines and BSc in Marine Science
- BA degrees in Environmental Studies, Geography, Population Studies and Marine Studies and Land Use Planning
- Diploma and Certificate Programmes in Tropical Fisheries.
- Diploma Programmes in Environmental Education, Fisheries Management and Population Studies
- Postgraduate courses and programmes with special emphasis on environment and development offered by the centre for Development Studies and recently, The Postgraduate Certificate in Climate Change and Vulnerability and Adaptation Assessment

**Quality Management**

This includes the commissioning of external advisors, whose role is to review and evaluate the courses and programmes at USP and make recommendation for improvement where required. All Departments are reviewed regularly by External Advisors and their recommendation followed up by the USP.

Quality performance of staff is currently assessed annually through a formal staff review process. New academic initiatives are scrutinised in various committees of the University. An enhancement led approach to Quality Management is now being introduced. An important aim of the University is to determine priorities and set objectives for quality enhancement as part of the strategic planning process. Critical aspects of this include the effective use of resources, particularly in the improvement of the quality.

**Distance and Flexible Learning.**

Distance and Flexible learning, with multi-modal teaching allowing students to learn supported by a range of print based, video broadcast and electronic (e.g. WebCT) resources, in addition to face-to-face on campus classes and flexi schools around the region. The USP has a dedicated satellite, which facilitates audio, video and teleconference communication with students at other centres.

USPNet now delivers the University's programmes via a dedicated satellite to its 12 member Countries through 14 USP centres. The University has been using video broadcasting as an integral part off flexible multi modal teaching and learning. Technologies such as Web Course Tools (WebCT) have been adopted over the past few years.

**Participation at International Level.**

Pacific Island Countries (PIC's) had a strong presence at the World summit on Sustainable Development held on the 26th August-4th September 2002 held at Johannesburg, South Africa and this included a seven member delegation from USP. This delegation was divided into groups and attached to Pacific Island Country National Delegations. The presence of a large delegation from Pacific Islands Countries was to ensure that the interests of SIDS were recognised and included in global deliberations on sustainable development.

Apart from the above, recently the University of the South Pacific has been identified as a Regional Centre of Expertise (RCE) for the promotion of Education for Sustainable Development in South Pacific Island Countries. This was launched at the International Conference on 'Globalisation and Education for Sustainable Development- Sustaining the Future' which was held in Nagoya Japan in June this year.

**Land Management and Development (LMD)**

The LMD at SSED, in USP is the premier group for professional and other land management, land use planning, real estate and geomatic education and research in the South Pacific Region. Among other issues it deals with, land is central to the study done at the Department.

Land is the real foundation of social and economic activities in the Pacific Region, as it is elsewhere in the world. Pacific Society is becoming increasingly concerned with how land is used and distributed. The supply of land is limited and there is increasing demand that it be used wisely and sustainably. Often conflicts arise between groups that hold differing views on proper land use, or the enjoyment of their respective property rights. Prudent land management, grounded in an understanding of land use

planning, real estate principles and geomatics, will ensure that land as a resource will be optimally used and protected for the good of society and future generations.

The Department is responsible for professional and other land management, land use planning, real estate and geomatics education and research in the South Pacific Region. The Department was established in 1981 and has developed an alumnus of property professionals operating in government and private sector through the USP member countries and beyond. The University strongly promotes the Department and offers undergraduates programmes in Real Estate, Land Use Planning and Geomatics, a Postgraduate Diploma in Real Estate and Research Programs at Masters and Doctoral level. With strong emphasis on three pillars of sustainable development, the LMD is involved in all aspects environmental, economic, geographic, legal, spatial and social information for prudent decision making by regional governments, organisation in the South Pacific Region. The Land Management Department educates land and property specialists dealing with identification, planning, acquisition, development, management, investment, valuation/appraisal, land tenure and disposal of land and buildings and real estate appropriate for the region (see figure 1 below).

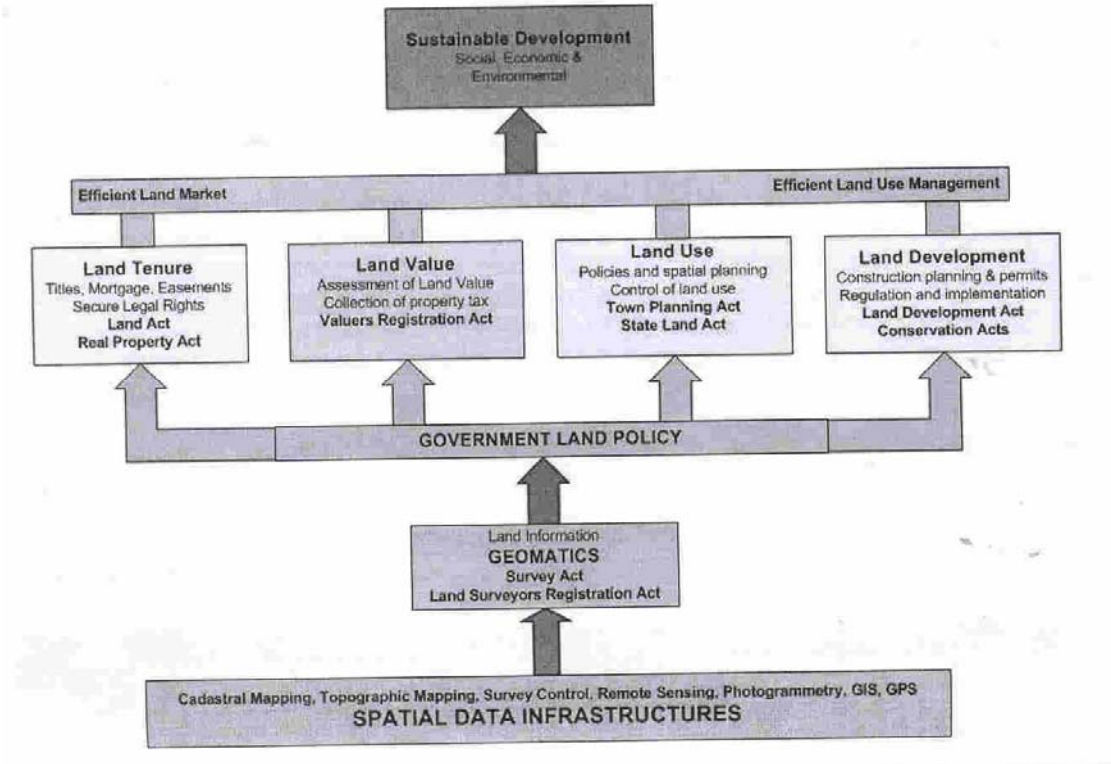


Figure 1

Source; Boydell and Curley (2004)

Given the importance society places on land in the region, the Department has established a high profile and over the last seven years has become research active. The evolution from emphasis on professional qualifications to prioritisation of academic qualifications has catalysed a developing, but thus far modest, research output as departmental staff strives to upgrade their qualifications and research output alongside Graduate Assistants and postgraduate scholars.

**The Place of the Department**

The LMD is one of the founding departments in the new Faculty of Island and Oceans, which will come into being in January 2006. This new Faculty has an essentially Pacific Focus, comprising a synergy of the complementary disciplines of the:

- School of Marine Studies ( including the Marine Studies programme, Marine Affairs Programme, Institute of Marine Resources, Atoll Research unit);
- Department of Geography(including GIS, Population Studies);
- Department of Land Management;
- Department Of Tourism and Hospitality; and
- Oceanic Centre for Arts and Culture

**Academic Programme**

The Department underwent a major review to mainstream its offerings and make them more attractive as 'double major' offering, in response to the External Advisers report in 2001. USP students are largely donors funded, and aid donors and member governments have always emphasised a double major approach to undergraduate studies. In 2004 we commenced a Certificate, Diploma and BA Major Programmes in Real Estate and Land Use Planning. In 2005 a Certificate in Geomatics was added with a Diploma Geomatics undergoing the approval process. The BA double major in Real Estate and Land Use Planning continue to satisfy the academic requirements for the Valuers Registration Board of Fiji, and the Diploma in Geomatics will satisfy the registration requirements for Surveyors Registration Board Fiji. All programmes have been developed in conjunction with respective registration boards and professional bodies (Institute of Valuation and Estate Management and Fiji Institute of Surveyors). Similar bodies are yet to evolve in other countries. The department is an academic

member of the International Federation of Surveyors (FIG) and the Australasian Spatial Information Education and Research Association (ASIERA)

Until 2004, the Department offered a single major in BA Land Management and Development of comprising 20 prescribed subjects with a choice of Urban and Rural Options. Rural option students spent Semester 1 of their 200 level studies at Alafua Campus, the Agriculture School in Samoa. This option resulted in a Fiji Sponsor perception that all students had to study on the Agricultural Campus in Samoa, with associated costs. This resulted in a withdrawal of Fijian Affairs Board, Public Service Commission and Multi-Ethnic Affairs scholarships in 1998/9, which took 3 years to restore. The Department also offered a six course BA Major (LD) in Land Management

The new programmes have attracted significant increases in student enrolments (all course have seen a 50% increase in 2005 (with exception of RE 307), which for 2005 is summarised in Appendix 1.

There are six core courses in the Land Use Planning programs; LP 101, Principles and Problems of Land Tenure, `LP 201, Town and Country Planning, LP 204, Planning and Environmental Law, LP 300, Planning Research Subject, LP 303, Land Economics and LP 309, Property Development.

If we examine the contents of these courses teaching emphasis is on combinations of knowledge, issues, skill, perspectives and values for education in sustainable development. Moreover each of these items are central and discussed together with the three components of sustainable developments, i.e. environments, economy and society. The areas focussed on include issues that affect our environments, such as natural events for example tropical cyclones, droughts, tidal waves, tsunamis, floods, fires and earthquakes, global warming, the breakdown in the earth's protective ozone layer, pollution, nuclear radiation, unsustainable fishing methods etc, squatting, improved understanding of our island environment, natural as well as cultural environments, protection of habitats and the ecosystem. Education materials sometime include traditional and indigenous knowledge.

In addition, this new curriculum complies with the “Strength Model” i.e. lecturers and administrators understand the concept of sustainability and are familiar with its principles. Lecturers had identified potential areas of existing curriculum in which to inset examples that illustrate sustainability, including additional knowledge, issues, perspective, skills or values.

Lecturers have created awareness through discussion at the weekly industry participation four-o clock forum, and via Close Up current affairs programme on Fiji TV show, and these contribute to the larger ESD picture. These contributions were woven together to create ESD programs that are taught overtly to pupils and students. In this approach, the synergistic strengths of combined educational disciplines convey the knowledge, issues, skills, perceptions and values associated with ESD

No one discipline or University Department can or should claim ownership of ESD. In fact ESD poses such broad and encompassing challenges that it requires contribution from many disciplines

At USP, Geography, Economics, Marine Studies, Biology, Chemistry, Earth Science, Centre for Development Studies and the Department of Land Management and Development all offer programme on ESD. Other majors also offer part of their programme on ESD.

Participation on fieldtrips or field exercises and completing associated assignments or tasks, inviting guest lecturer such as those from office of Planning and Environment have all expanded the vision of how to teach for creativity, critical thinking and desire for life long learning- all mental habits that support sustainable societies.

The concept of sustainability continues to evolve as society changes and as or awareness and perception of earth, humanity and human environmental interactions correspondingly evolve. Subtle changes, such as shift in focus or emphasis, will of course be regional in nature and reflect the conditions of local ecosystem and culture. As a result, of the maturing nature of sustainability issues, those educating sustainability should continually adapt the content, scope and methodology with geographic and temporal contexts. This constant adaptation will require flexibility on the part of educators as they work together on local and international projects.

Definitions and practices that are admirably effective in one part of the world can be ineffective or inappropriate in another.

**Challenges and Barriers to Education on Planning and Sustainability**

The seven "Triads of Sustainability" which have been put forward by the Global Development Research Centre have been adopted and include: participation; decision-making; partnership; governance; knowledge and information; continued improvement; and lifestyles.

*Participation*

The participation Triad has commitment, communication and Co-operation as its three defining corners. For an innovative community effective and comprehensive participation enable exchange of ideas and opinions both among themselves and also from external expert and resource person. The community fully participates if they are made aware of issues concerning sustainability. Expert and resource person can also participate if they have the knowledge. It is at USP and more particularly at LMD where they learn to dialogue, co-operate and communicate. When they pass these characteristics onto the wider community they are seen to be contributing to planning and sustainable education.

*Decision-Making*

Decision-Making has consensus building, awareness building and review and hearings as its three defining corners. Therefore taking effective decisions that have positive impact on the environment as a whole- local and global is imperative. Creating collective agreements and opinion reached by the community is important. In addition, it is absolutely essential for teachers to be involved in the process of building consensus concerning ESD. Ministry of Environment needs to work with both formal and informal sectors of the education community to implement ESD (consensus building) for action; initiating action on decisions taken necessitates the overall understanding of the causes and effects (awareness building), and active involvement of all members of the community to discuss and debate the issues concerned (review and hearing). In some SIDS some customary forest owners have taken the decisions not to cut their forests. Similarly, traditional fishing ground owners have prohibited fishing up to certain periods. These are two examples of

collective agreements as a result of awareness of the concept of sustainable developments.

In addition, the first step is to develop awareness within the educational community and the public that orienting education to achieve sustainability is essential. At USP the Council Members, Senate and Board of Studies members are aware of this, and environment has been placed in the USP Strategic Plan as a priority area. Lecturers and program co-ordinators have reoriented their programs in order to focus on priority areas such as the Environment. Some lecturers have even gone to the extent of working with the community in their research to educate and to further achieve the concept of sustainability. In figure 1, it shows that the programme of land use planning fully embraced the concept of "Sustainable Development". The Department has incorporated the concept of "Sustainable Development" in most of their courses.
Educational materials should always try to include some traditional knowledge where appropriate, local language, habitats, places, people and system for using living resources.

*Partnership*

The Partnership Triad has interdependence, networking and clustering as its three defining corners. Partnership is a relationship between individuals or groups that is characterised by mutual assistance and responsibility for the achievement of agreed, specified goal.

The key to effective community partnership is that members of the community bring to the table different resources, skills and knowledge needed to take action. This calls for mutual respect of each member's strength and weaknesses (interdependence), of interacting with people who have similar interest, or concerns or providing support (networking) and bringing together the different skills and resources needed for particular/specific action (clustering). At USP, it has worked in partnership with member countries in order to identify priority areas. This area includes economic development, socio-cultural developments, governance law and order, science, environment and information and communication technology. The LMD have worked closely with Fiji Institute of Valuation and Estate Management and also the Property Industries including the Department of Lands and the Department of Planning and

Environment on the content, delivery and contemporary challenges as well knowledge and skills of the courses that they offer.

Another example of partnership is the Pacific Type 11 initiatives: community planning. This initiative will help governments and communities develop capacity to fully integrate environmental and development planning at the national and sub national level. It primarily focus on community based planning approaches and capacity to use tools covering; integrated legal framework, institutional and policy frameworks, integrated land use planning systems and information enhancement and management. Public participation process whereby stakeholders examine the needs and desires of a community and identify essential elements of basic and secondary and as well as tertiary education can be adopted in many types of communities. Seeking opinions of parents and workers to shape the education of their children will be a totally new idea in some cultures. This should be introduced slowly and in accordance to culture and traditions. Ongoing liaison is done with Fiji Institute of Valuation and Estate Management, Fiji Institute of Surveyors and the Valuer's Registration Board and the Survey Registration Board.

Popular thinking promotes the myth that an informed society is solely the responsibility of the Ministry of Education. In reality, however the Ministry for Environment, Health has also a stake in ESD just as they have a stake in ESD and sustainable development. Ministry of Environment needs to work with both formal and informal sectors of the education community to implement ESD.

*Governance*

The Governance Triad has transparency, accountability, and efficiency as its three defining corners. Good governance occurs when societal norms and practices empower and encourage communities to take increasingly greater control over their own developments, without impinging upon the accepted right of others.

Good governance is enabled by the free flow of information. Process, institutions and information are directly accessible to those concerned with them, and enough information is provided to understand and monitor them (transparency). In an innovative community, empowered and responsible members have more authority and responsibility for decision-making can improve delivery of the city's aim and

objective, and can improve management of human and financial resources (accountability). Making the best use of proximate and available resources to maximise the output achieved is also key ingredient of a community governance system (efficiency)

USP must not only honour its commitment to good governance in its operations but also support member countries in achieving it through training, consultation and research. In addition USP must take the lead role in embracing the triad of Governance in order to stamp out issues of low productivity, inefficiency and corruption.

*Knowledge and Information*

The Knowledge and Information Triad has appropriateness, accessibility and timeliness as its three defining corners. Knowledge and information lies at the core of a community's ability to become innovative- to become aware, to take decisions, to communicate and to act.

In order to be able to carry these out, it is essential that communities have knowledge and information that is appropriate, easily accessible in a form that can be understood and made available in a timely manner.

Knowledge and information also includes such issues as learning, formatting and packaging information, targeting, delivery mechanisms and information sharing, technologies (ICTs).

The flexibility of programs at USP allows the program co-ordinators to decide on the method of implementation whether to create another or "add on" subject or to reorient the entire education programs and practices to address sustainable development. Experimentation will determine what level of ESD will be appropriate and successful to meet the community's sustainable development goal. The introduction of Distance and Flexible Learning have enable knowledge and information to reach such a wide audience in print based video broadcast and electronic resources (e.g. WebCT). USP has dedicated satellites, which facilitates audio video and teleconference communication with students at other centres.

*Continued Improvement*

The Continual Improvement Triad has monitoring and evaluation, needs assessment and feedback as its three defining corners. Continual improvements refers to the setting up of a corrective and preventive action, as well as a learning environment that makes use of lessons learnt and involves all members of the community. The key operational component of continual improvement is monitoring and evaluation put in place that checks the progress of a programme or a project. An efficient needs assessment systems also enable setting up of targets and goals against which progress can be measured and monitored. Feedback from community members helps in increasing efficiency and effectiveness. The roles played by external advisors in reviewing courses and the following up of their recommendation by USP, the staff reviews process and the new enhancement approach all contributes to Quality Management.

The successful implementation of a new educational trend will require responsible, accountable leadership and expertise in both systematic educational change and sustainable development. We must develop realistic strategies to quickly create knowledgeable and capable leadership. Both inservice and preservice training is necessary to human resource development for ESD

*Lifestyles*

The Lifestyles Triad has behaviour, ethics and value as its three defining corners. Sustainable lifestyles are at the core of an innovative community- as goal and as a process.

Building sustainable lifestyles depends externally on the smooth implementation of the six triads discussed above, but intrinsically linked to the behaviour patterns, ethics and value systems adopted by individual members of the community. Ultimately, the success of a local environmental management plan or programme will depend on the lifestyle choices adopted by the community- and the value they place on the environmental resources they consume.

To make a better choice, education is the key to these life styles. One can imagine the type of lifestyle wanted to live without good education and on the other hand a better lifestyle in terms of consumption of resources would result.

## Conclusion

The University of the South Pacific has embraced the concept of sustainable development. By aligning itself with SIDS in the Johannesburg meeting it was to ensure that SIDS were recognised and included in the global discussions on sustainable developments. This commitment is further reflected in its policy documents. Further, the establishment of the Pacific Centre for Environment and Sustainable Developments is an indication of the commitment of USP to the ideals and principle of sustainable development. Sustainable developments have been identified as a key priority area. Similarly the programme on Land Use Planning has embraced the concept of planning for sustainable education; in contents, delivery, the knowledge and skills base, and the challenges. Reorienting of curriculum have enable students to focus on sustainable issues in planning education as a result of the recommendation of the External Advisor. Issues of sustainability pertaining to Small Island Developing States in the Pacific are taken into account and are discussed with students in lectures, tutorial, field trips and exercises, at the four o clock forum and TV Close Up Programme. The seven Triad of Sustainability poses particular challenges to SIDS because of their resources, economy, vulnerability and isolation. Education Institutions such as USP and LMD have responded well to the challenge through the delivery, contents incorporating sustainable issues in its curriculum, including knowledge and skill base.

## References:


Brown, C., Clayton, J. and Vincent, N. (2002) RPTI Education Commission, Background Papers 1-4, Centre for Environment & Planning, University of West England, Bristol.

Boydell, S. (2003) Sustainable Urban Development, Pacific Dream or Reality? A Fiji Case study; in A Journal of Contemporary Fiji in G Chand, Fiji Institute of Applied Studies. p:33-49.

Campbell, S. & Fainstein, S. (1996) Readings in Planning Theory, Blackwell Publishing, Oxford.

Charles, Hopkins; and Rosalyn, Mckeown; (2002) “Education for Sustainable Development: An International Perspective” in Environmental Education for Sustainability: Responding to the Global Challenge, Eds. D. Tilbury, R.B Stevenson, J. Fein, and D. Schreuder. Gland, Switzerland and Cambridge, UK: IUCN Commission on Education and Communication.

Committee of International Development Institutions, ed by Mohan Munasinghe, Environment Economics and Natural Resource Management in Developing Countries

ESCAP, (2004) Environment and sustainable development news, Bangkok, Thailand, in Periodicals, Vol. 4 No. 3 Sept, 2004.

Gilpin, A. (2000) Environmental Economics: a critical overview; John Wiley, New York.

Harris, M. J. (2002) Environmental and natural resource economics: a contemporary approach; Houghton Mifflin, Boston

Harrison, D. (2004) Tourism in Pacific, Journal of Pacific Studies, Vol. 26 no1/2 April

Mckeown, R. (2002) Education for Sustainable Development Toolkit; Energy, Environment and Resources Centre, University of Tennessee, Knoxville.

McClaren, M; (1993) Environmental Literacy. A Critical Element of a Liberal Education for 21st Century, Education Manitoba, Vol 17 n 1 January-February.

Monash Internatinal Pty Ltd; (2005) Training Manual; Capacity Building in Strategic Planning of Urban Centres and Rural areas; Skills Training, Presented in Lautoka, Fiji.

UNESCO (1997) Education for Sustainable Future: A Transdisciplinary Vision for Concerted Action. EPD- 97/ Conf. 401/CLD. 1
.

UNESCO, (2000) World Education Report The Right to Education: Towards Education for all through Life. Paris: UNESCO Publishing
.

Ratcliffe, J; (1981) An Introduction to Town and Country Planning ,UCL Press Limited, London.

University of the South Pacific; (2004) Draft Consultative Report A Regional University of Excellence Weaving Past and Present for the Future. A vision to the year 2020, Suva, Fiji.

University of the South Pacific; (2001) Draft Consultative Report. A Regional University of Excellence. Weaving Past and Present for the Future. A vision to the year 2020. Background Papers, Suva, Fiji.

Thaman, R, R; (2000) Education for Environmentally Sustainable Development in the Pacific Islands: Thoughts and Ideas for Teachers, In Pacific Curriculum Network, vol.9 no.2

Ward, R, Gerrad; & Lewis, Davis, Nancy; 2003, An Overview of Pacific Sustainability- Challenges of People and Institutions; Fijian Studies, Chand, G; in A Journal of Contemporary Fiji; Fijian Institute of Applied Studies p1-14

**Internet References**

Earth Charter. Accessed July 2005. http://www.earthcharter.org

Paris21. 2000 A Better World for All. Accessed 26 July 2005. http://www.paris21.org/betterworld/home.htmhttp://www-esd world bank. Org/Home Page for Environmentally and Socially Sustainable Development. Accessed 24 August 2005.

http://www.unesco.org/education/tslf, Teaching and learning for a Sustainable Future. Education for Sustainable Development. Accessed on 21/6/0

http://portal.unesco.org/education/en/ev.php-URL_ID

The 7 Triads of Sustainability, http://gdrc.org/sustdev/triads/triad.html Accesses on 13/9/2005

## Appendix 1:
## Summary of Courses offered by Land Management and Development Department in Semester 1 & 2 2005 and Students Cohort

| Sem 1 | Courses | No. Students | Sem 2 | Courses | No. Students |
|---|---|---|---|---|---|
| GM 101* | Introduction to Geomatics | 77 | GM 102 | Gematics 1 | 11 |
| LP 101* | Principles and Problems of Land Tenure | 95 | GM103 | Survey Computation 1 | 11 |
| RE101* | Real Estate Principles | 94 | LP 204 | Planning and Environmental Law | 42 |
| LP 201 | Town & Country Planning | 37 | RE205 | Real Estate Finance and Investment Analysis | 37 |
| RE 204 | Real Estate Law | 25 | RE208 | Real Estate Management &Agency | 34 |
| LP 303 | Land Economics | 21 | RE 307 | Estate Valuation 11 | 12 |
| RE 302 | Real Estate Valuation 1 | 17 | LP 309 | Property Development | 36 |
| LP 300 | Planning Research Project | - | LP 300 | Planning Research Project | 17 |
| RE 300 | Real Estate Research Project | _ | RE 300 | Real Estate Research Project | - |
| RE 401 | Urban Land Economics | - | RE 402 | Real Investment and Property Analysis | - |
| Re 403 | Law Relating to Land Management | - | Re 404 | Real Property Management | - |
| DG 400 | Research Methods | 1 | DG 400 | Research Methods | - |
| LM 600 | Masters(SRE) | - | LM 600 | Masters (SRE) | - |
| LM 700 | MA Land Management | 3 | LM 700 | MA Land Management | 3 |
| LM 800 | PhD Land Management | 1 | LM 800 | PhD Land Management | 1 |

Source: LMD Brochure, 2005
*WebCT/VBC Courses
GM 102 & GM 103 first offering 2005

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## Is sustainability an appropriate focus for planning education? A discussion paper

At the University of Otago, both in the planning programme and in the Geography degree programmes sustainable development is arguably, the most used theoretical paradigm. For planning practice, New Zealand's primary legislation the Resource Management Act (1991) and the more recent Local Government Act (2002) are focused on the principle of sustainability, explicit in the former and implicit in the latter. In practice, sustainable development has become the most prominent guiding force, primarily with regard to the physical environment. Certainly, New Zealand since the passing of the Resource Management Act has seen the entrenchment of the dominance of biophysical planning and land use planning, where a environmentally determined 'sustainable management' has been adopted rather than a wider social, economic and environmentally oriented sustainable development. In New Zealand the land use planning dominance is now being challenged and the call for wider, more innovative socially oriented planning approaches being made. For planning education this call has resonance and relevance for those of us responsible for curriculum design and delivery. This paper will explore the role of the sustainable development paradigm in planning, its roots, its attractions, benefits and its limitations.

### *The rising dominance of the sustainability ideal*

A quick trawl of some of the international and national Planning Institutes and key organisations involved with planning reveals a profession which has 'sustainability' as one of, if not its key stated objective. The concept of sustainable development is at the forefront in mission statements, career advice, definitions of what planning is, as a focus for future development, as a central research focus and in the case of the Australian Planning Institute forms part of its logo. The following examples taken from the Institutes' own web sites clearly illustrate the centrality of concern around sustainability:

*Commonwealth Association of Planners*: The Commonwealth Association of Planners seeks to focus and develop the skills of urban and regional planners across the Commonwealth to meet the challenges of urbanisation and the sustainable development of human settlements.

*Canadian Planning Institute:* 'Planning' means the scientific, aesthetic, and orderly disposition of land, resources, facilities and services with a view to securing the physical, economic and social efficiency, health and well-being of urban and rural communities…Responsible planning has always been vital to the sustainability of safe, healthy, and secure urban environments. ….

*Royal Town Planning Institute*:

- The RTPI is currently reviewing its own policy on sustainable development. The subject was discussed by the RTPI Council in detail in April 2002. The RTPI frequently addresses the issues associated with sustainable development through, for example, consultation responses to Government and other public bodies, press releases and articles in *Planning*.
- The RTPI has published a new teaching aid entitled "Education for Sustainable Development: A Manual for Schools".
- In November 2002 the RTPI set up a Sustainable Development Think Tank. The Think Tank comprises of 14 members of the Institute, it's aims include; the production of a sustainable development strategy for the RTPI, advice to Management Board on the implementation of the strategy, identification of alliances with other organisations and the production of a topic based policy

*PIA Planning Institute of Australia*: has as its subtitle in its banner 'Creating sustainable communities'.

The notion of sustainable development is one that appears to be of great interest to the planning profession globally. It is central to their research and future development (RTPI), it is part of the first stage of representation of the profession as in PIA's banner, it is in the definition of planning (CPI), and forms a central objective of planning practice (CPA). In New Zealand this centrality is well entrenched in the profession too.

*Sustainability in New Zealand*

In New Zealand, sustainability is similarly at the forefront as the following quote from the New Zealand Planning Institute website indicates:

> Planning in New Zealand is based on the concept of "sustainable management" of natural and physical resources. Global concerns about the gradual loss and destruction of many of our natural resources mean that communities at international, national and local levels must learn to live 'sustainably'. With the passing of its latest integrated planning

> legislation, the Resource Management Act 1991, New Zealand is now at the leading edge of international moves to achieve sustainable management.

New Zealand was an early if not the first convert to the sustainability ideal. Indeed its Resource Management Act (RMA) predates the 1992 Rio Earth summit often taken as the founding stage of sustainability. The RMA places sustainability at the centre of planning in New Zealand. Where this centralising becomes problematic, however, is in the attachment of a specific set of understandings to this term. In New Zealand the full term used is 'sustainable management' which relates to "managing the use, development and protection of physical resources in a way, or at a rate which enables people and communities to provide for their social, economic and cultural well being, health and safety while…." (RMA, 1991,s.5). It can be argued that as New Zealand's legislation plainly defines sustainability so planners should know what they are dealing with it. Nonetheless, there are problems with this definition in that as the Parliamentary Commission for the Environment relates, this has not prevented confusion and has not necessarily resulted in progress:

> The sustainable development story of the 1990s is also one of confusion about what sustainability is all about. New Zealand made a flying start in the late 1980s with the crafting of the Resource Management Act… Ironically, this starting point has contributed to our now being behind many other nations. We are behind in our thinking and the way we interpret the more holistic concept of sustainable development…New Zealand could have been a leading light on sustainable development now – but we are not (PCE, 2002, p.4).

Further the New Zealand definition offers a very limited version of sustainability and one deeply rooted in the 'natural and physical resource' ethos of environmental planning. The focus of 'sustainable management' at the centre of New Zealand Planning is one that it increasingly being questioned. Indeed, Prof. Jenny Dixon in her inaugural address at the University of Auckland stated: "Planning has become more environmentally focused as notions of sustainability have been embraced" and goes on to argue the case rather that "planning as a discipline is about working with communities in creative ways to shape futures" (Dixon, 2001 pages 5 and 7). In New Zealand legislatively and in the general consciousness of planners, sustainability is at the forefront, but it is a limited, environmentally deterministic, land use planning focused interpretation. As sustainability becomes both increasingly used and contrarily increasingly questioned both within and outside planning generally, there needs to be more discussion on what the guiding principle for planning should be and whether sustainability, can assist in moving towards a more creative, future oriented community centred planning of the type Dixon identifies. At this stage, it is perhaps apposite to ask how has planning got to the stage where sustainable development is so central to the professions representation of itself and if offers a suitable vehicle for this wider planning?

***Planning theory and the development of sustainability***

Sustainable development has a recognised set of themes and concepts. Commonly used concepts included in discussions around sustainability would include amongst others, concepts such as inter and intra-generational equity, meeting essential human needs, sustainable levels of growth, conserving and enhancing the resource base, social justice, trans-frontier responsibility, maintaining natural capital and improving the quality of human life. Attached to this plethora of concepts and articulations of sustainability there are a number of generally agreed goals of sustainable development focused around environments that are:

- Clean and healthy
- Resource efficient
- Socially equitable
- Participative
- In harmony with the natural environment
- Vibrant (and some would say spiritual)
  (after Freeman and Thompson Fawcett, 2003, p.15)

These goals are broad in scope and only indicative of the myriad of ways in which sustainability is interpreted and the vast range of contexts within which sustainable development ideals are applied. It is this breadth that causes much of the angst that planners feel in addressing issues through the sustainable development lens. So, what does sustainable development actually mean for planners and how does it relate to planning?

The 'success' of sustainable development in infiltrating planning may well be in part due to the fact that several of its key tenets are deeply rooted within planning and long familiar to planning theory and practice. Over time planning has adjusted its orientation in accord with matters of urgency and the primary issues of the day. As it has done so, it has also sought explanations and provided a rationale to explain why it is doing what it is doing and the manner in which it is being done. Such adjustments are part of the flexible and adaptable nature of planning. Indeed as Friedman (1987), Yiftachel (1988), Taylor (1998) and Allmendingher (2002) amongst other planning theorists demonstrate, there is a range of impressive planning theories developed and indeed borrowed from outside planning that have been used over time. Sustainable development being but one of these. Within this body of planning theory a number of approaches to planning can be detected, some of the key ones being:

- Planning as physical-morphological
- Planning as design-physical planning- master planning
- Planning as social reform
- Systems planning
- Planning as political process-advocacy, public participation…
- Political economic determinism
- Social democracy

To this list I would add

- Planning as sustainable development

These broader approaches encompass a range of more specific approaches, concepts and themes that have direct resonance for any current discussions of sustainable development. If we look at the goals of sustainable development as listed above connections to earlier planning ideas and thinkers whose ideas have had relevance for planning can readily be seen:

- *Clean and healthy* – the early public health focus of planning, Victorian 'philanthropists' Titus Salts, Robert Owen and William Lever, especially the planning focus on developing appropriate building codes to ensure minimal quality housing, the slum clearance movement of the 1960s and 1970s and for planners in developing countries this is still the key concern.
- *Resource efficient* – Mumford's concern (1961) with the descent of cities into crisis, Goodman and Goodman's (1947) essay 'A city of efficient consumption'
- *Socially equitable* - Engels (1845) and Marx, Jane Jacobs (1961) and Delores Hayden (1984) on and the rise of marginalised groups, primarily women, as a planning concern, David Harvey's 'Social Justice and the City' (1973)
- *Participative* - Davidoff's advocacy planning (1965), Arnstein's (1969) 'ladder of citizen participation', Sandercock and Forsyth (1990) on the 'gender' agenda.
- *In harmony with the natural environment*; Olmsted's public parks ideal (1938) Ebeneezer Howard's (1898) 'Garden City', Ian McHarg's 'Design with Nature', and Owen's (1991) 'Planning Settlements Naturally'.
- Vibrant: Louis Wirth (1938) 'Urbanism as a way of life'.

The above list is indicative only, and many more could be included and indeed many of those included under one category indeed were broad thinkers and concerned themselves with broader issues than those encapsulated in the one category. To illustrate, the Victorian philanthropists as they are rather grandly called in planning education, followed many of the tenets of sustainable development. They provided low cost, durable housing made from local materials, and workplaces powered by waterpower based on the productivity of local materials such as sheep and were places where everyone walked to work. They were also concerned for the social and physical well being of the families, provided almshouses for the elderly and parks and allotments were provided to encourage healthy lifestyles. However, the villages were run in a hierarchical, patriarchal top down fashion with no participative input outside their labour from the workers. Still, they were fairly impressive in the context of nineteenth century industrialising Britain. It is important that any new directions in planning builds on those that have positively shaped planning to date. The sustainable development idea incorporates issues and concerns around spatial planning and physical design, planning as social reform and democracy, it recognises interrelationships (systems), the political process in planning and indeed sustainable development has had a strong presence in political thinking. Though it eschews economic

determinism, it recognises the importance of economic well-being and appropriate levels of economic growth and development. Within planning, there is then much understanding, that can contribute to a planning appropriate approach to sustainable development.

***Sustainable Development: is it an appropriate paradigm for planning?***

Does sustainable development, therefore, provide any new direction for planning, if it can be argued that in fact the tenets of sustainable development are long familiar to planning and planners. Sustainable development differs from many of the earlier planning ideas, approaches and theories in that it is diffuse and subject to ongoing debate. It is a highly contested notion. It has been distorted by a whole range of disciplines, professions and in various practice contexts to mean whatever the user wishes it to mean. As such it has lost coherence and for many even validity as a term. To quote Welch: "Because of the widespread and often indiscriminate use, the term sustainability is not unequivocal; the gulf between the Brundtland Commission 'definition' and practicality is as great as ever" (Welch, 2003, p.23). Then again, sustainable development it could be argued, provides a coherent interface bringing together many of the ideas already central to planning, placing them in a setting appropriate to the 21st century. This debate is important to the question that needs to be asked, which is; whether sustainable development is indeed an appropriate guiding principle for planning now and is so what does sustainable development actually mean?

Sustainable development like many 'paradigms' used by planners, emanates from outside of planning but has, nonetheless, been eagerly adopted by them. A strength of such an adoption is that it enables planners to converse at both a practical and theoretical level with other theorists and practitioners from outside planning and it gives the planner entry into wider planning contexts, such as the Earth Summit process, the development of national sustainable development strategies and the creation of the wider development vision involved in urban regeneration. With strength though comes weakness and one weakness is that an external paradigm has been adopted that is not rooted within planning. It does not focus on what planners do or on planning processes. Neither is the drive for sustainable development located within the arenas within which planners mainly work. Local authority sustainable development strategies, for example, may include planners in the consultation and development process but rarely are planners central players in the process. If the potential that sustainable development offers for positive environmentally appropriate planning is to be realised then as I stated in an earlier paper on sustainable development in New Zealand:

> Planners need to be key players in the evolution towards sustainable development. In doing so they need to stand firm against the current tendency towards regulatory planning focused on land use and reassert their role as promoters of the social, economic and environmental well-being of their constituents (Freeman, 2004, 324).

Can planners embrace sustainable development when in fact much of the movement in planning is actually towards narrower more bureaucratic planning that is at odds with the wider integrative vision encompassed in the notion of sustainability? Sustainable development confronts planners with challenges. It is a diffuse concept, it has been hijacked by a whole range of disparate professions and for equally disparate ends, it is quite likely impossible to achieve, it is a highly debated and contested notion and it lacks the certainty common to other theories and approaches. Given these challenges can sustainable development be of value in planning education?

***Sustainable development and planning education***

Just as in earlier eras design, public good and other themes were central to planning education I would argue that currently sustainable development occupies a similar centrality. In New Zealand the centrality of sustainable development comes in large part from the external environment. Sustainability or at least the 'sustainable management' version is the defining concept for New Zealand legislation and planning practice. When students undertake planning employment as casual employees whilst studying, or as graduating planners they become immersed in the whole process of planning as 'sustainable management'. This then raises questions of what the role of sustainability is in planning education and the wider purpose of planning education. Most planning academics would concur with the view that it is not the responsibility of planning education to produce planners able to just work within any one theoretical paradigm or in practice that references itself primarily by one piece of planning legislation. There is pressure from practice for academics to produce planning graduates able to slot into the immediate work environment and to have the skills applicable to that work environment. In New Zealand that work environment is one dominated by land use planning under a 'sustainable management' philosophy. Whilst such a pragmatic view has some validity it needs to be tempered with the need to produce students with a broad vision of planning able to work across different practice regimes and in different planning contexts. In her inaugural lecture Jenny Dixon identified a set of skills that planning education needs to provide for its students:

- An ability to understand" the bigger picture" and to critically engage in issues with colleagues and communities
- A strong professional and personal identity
- Confidence in their own discipline and of their contribution as planners
- A high level of critical, analytical, design and communication skills
- Commitment to ensure that issues are addressed in terms of social and physical sustainability, equity and democracy (2001, p. 7)

Sustainable development does provide a vehicle through which the widening social and economic vision of planning can be engaged with whilst retaining the environmental component of planning so fundamental to planning practice in New Zealand. Planning education needs to engage, in New Zealand and elsewhere with sustainable development. This must not, however, be to the

exclusion of other theories, approaches and paradigms important to the developing skills of planners and which provide students with an understanding of core planning ideas and practices.

Sustainable development is an appropriate tool in planning education. If it is to retain its current high position it does need to be carefully presented and considered. Planners and planning educators need to be clear about what sustainable development is for them. Is it just the Brundtland definition, is it environmental planning or is it something wider? The actual definition does not matter so much as some common agreement on, not so much what sustainable development is, but what its limits are so that its essence for planning is not compromised by its continual appropriation and misuse in the wider world. The roots of sustainable development and its links with planning's theoretical and historical development need to be explored and meshed. Its strength in planning comes from its building on and affirmation of some long standing planning principles, principles of enjoining the natural and built environment, concern for providing healthy physical environments conducive to enhancing people's well being and the principle of participation and inclusion in decision making. Such an approach demands broad thinking within planning education and from practice. It is an exciting approach and one that enables planners to talk to others whose jobs also influence the quality of the physical and social environments in which we live. It is too late for planners to retreat to the familiar fortress of land use planning. As planning academics it is incumbent on us to prepare students to engage with this challenging context of sustainable development, but it is a preparation that needs to be deeply rooted in a profound sense of what planning itself is, where it comes from and where it is heading.

**References**


Allmendingher, P. (2002) Towards a post-positivist typology of planning theory, *Planning Theory*, 1(1) 77-99.

Arnstein, S. (1969) A ladder of citizen participation, *JAPA*, 8:3.

Davidoff, P. (1965) 'Advocacy and pluralism in planning', in LeGates, R.T. and Stout, F. (Eds) 1996: *The City Reader*, Routledge, London.

Dixon, J. (2001) Post modern paradigms and the planning quest, *Planning Quarterly*, 143, 4-7.

Engels, F. (1845) 'The great towns' in LeGates, R.T. and Stout, F. (Eds) 1996: *The City Reader*, Routledge, London.

Freeman, C. and Thompson-Fawcett, M (2003) *Living Space: Towards sustainable Settlements in New Zealand*, Otago University Press

Friedman, J. (1987) *Planning in the Public Domain*, Princetown University Press.

Goodman, P and Goodman, P (1947) 'A city of efficient consumption', in LeGates, R.T. and Stout, F. (Eds) 1996: *The City Reader*, Routledge, London.

Harvey, D. (1973 ) *Social Justice in the City,* Edward Arnold, London.

Hayden, D. (1981) 'What would a non-sexist city be like?' in LeGates, R.T. and Stout, F. (Eds) 1996: *The City Reader*, Routledge, London.

Howard, E. (1898) ‘Garden cities of Tomorrow’, in LeGates, R.T. and Stout, F. (Eds) 1996: *The City Reader*, Routledge, London.
Jacobs, J. (1961) *The Death and Life of Great American Cities*, Random House, New York.
Mcharg, I. (1969) *Design with Nature*, Doubleday and Co, New York.
Mumford, L.(1937) ‘What is a City?’ in LeGates, R.T. and Stout, F. (Eds) 1996: *The City Reader*, Routledge, London.
Owen,O. (1991) *Planning Settlements Naturally*, Packard Publishing, Chichester.
Sandercock, L and Forsyth, A. (1992) A gender agenda: new directions for planning theory, *JAPA*, 58:1.
Taylor, N. (1998) *Urban Planning Theory Since 1945*, Sage, London.
Wirth, L. (1938) “Urbanism as a way of life’ in LeGates, R.T. and Stout, F. (Eds) 1996: *The City Reader*, Routledge, London.
Yiftachel, O. (1988) Towards a new typology of urban planning theories, *Planning and Design*, 16: 23-39.

# ANZAPS 2005

# PLANNING AND SUSTAINABILITY


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**Curricula in Planning Schools in Latin America and Sustainability**


## Abstract

*The foundations of planning education in most Latin American countries, (known as education in urbanism), was first taught at the schools of architecture as optional courses to the senior level for those interested in this field. The first Graduate Program in Urbanism in Latin America was created in 1949 at the Universidad de Buenos Aires, Argentina.*

*Mexico has had in Latin America a renowned tradition in planning education ever since planning educator Domingo Garcia Ramos pioneered the field with his book Urbanismo, a prospective of urban development in Mexico for the decades of the 60s and 70s.*

*In Venezuela in 1967, the Instituto de Urbanismo opened as a Research Center pertaining to the College of Architecture and Urbanism (FAU) at Universidad Central de Venezuela with focus on land use, transportation, as well as social and economic issues. Within the Institute's structure the first graduate program in urban planning in Venezuela was created in 1969.*

*In 1974 at Simon Bolivar University was created the first undergraduate program in urban planning. A year later, Universidad Autonoma Metropolitana (UAM) in Mexico City created the program Urban Planning and Design of Human Settlements. Since then seven more undergraduate programs have appeared in the region of about the 60 graduate programs in planning that exist in Latin America.*

*This paper analyzes the curricula of the three countries' five urban planning programs that have initiated the undergraduate planning programs' movement in Latin America as a response to the need to start planning education at an earlier stage (Bachelor's degree[1]) where students are more sensitive and open minded to the understanding of the foundations in planning sciences.[2] It also analyzes to what extent sustainability is attained to these programs.*



Key words: Planning, pedagogy, curricula, sustainability


[1] Latin American universities follow the French model of five-year educational training. This prepares the graduate to perform at a professional level, equivalent to that of a Master's degree in the United States.

[2] XXII Encuentro RNIU; *Congreso Latinoamericano sobre la Formación de Posgrado en el Análisis Territorial*. Septiembre 1999, Tijuana, México

# Curricula in Planning Schools in Latin America and Sustainability

## Introduction

The accelerated urban growth that Latin American countries have experienced in the last fifty years has not had the expected impact on the creation of planning schools to tackle the increasing problems that appear when high rates of population growth and migration are the common trend.

This is the case in most countries such as Argentina, Brazil, Colombia, Mexico and Venezuela - to cite the most distinctive - with an annual rate of urbanization bordering on 90% (CEPAL 1998).[3] Although urban problems have been increasing in recent decades, planning education shows key differences among these countries.

Latin America scores one of the highest worlds′ urbanization annual rate (bordering 90% according to CEPAL[4]), a rate that clearly determines the need for training programs and planning schools to tackle the issues associated with accelerated urban growth. The spread of planning education could make a difference to improve functionality to distress cities in Latin America if a body of well trained officials take positions whether at government agencies or in consulting firms specialized in planning.

### Background

Although urban plans have been developed formally in several Latin American capital cities[5] during the 30s, modern planning education in Latin America appeared after the Second World War as optional courses in architecture school programs

In 1949 at the Universidad de Buenos Aires, Argentina, there appeared the first graduate program in urbanism in Latin America, now called urban and regional planning. It was in the late 70s after the 1976 Vancouver Habitat Conference that graduate programs in urban planning began to take off in several Latin American countries. In 1975 Mexico and Venezuela pioneered the first undergraduate programs in urban planning, which by now have granted almost 1000 professional degrees altogether.

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[3] CEPAL, (1998). Ciudades Intermedias en América Latina y el Caribe: Propuesta para la Gestión Urbana". Ministero degli Affari Esteri. Italian Agency for Cooperation. Rome, Italy.

[4] CEPAL, (1998). Ciudades Intermedias en América Latina y el Caribe: Propuesta para la Gestión Urbana". Ministero degli Affari Esteri. Italian Agency for Cooperation. Rome, Italy.

[5] Almandoz, A., (1997). Urbanismo Europeo en Caracas. Equinoccio, Universidad Simon Bolivar. Caracas, Vla.

*The Question*

To answer the question, "Are there any universals in planning education in Latin America?" We need to know the general background that gave rise to the foundations of planning education. In this sense, it has to be said that the main influence on modern planning in Latin America has been "*French urbanism,*" or the École Supérieure d'Urbanisme, which features the ideas of Le Corbusier. The influence of these ideas on the first general plans of Buenos Aires, Montevideo, Rio, Sao Paulo, and later on Caracas is clear evidence of this.

Urban and regional planning in Latin America is taught at the undergraduate level in leading universities. These were created in the late sixties (Universidad Autonoma Metropolitana and Universidad Simon Bolivar) as a response to a new model for universities in Mexico and Venezuela respectively.

Later more traditional universities joined this group in an effort to update their studies with the times and new emerging career fields. This is the case of Universidad Nacional Autonoma de Mexico, Benemerita Universidad Autonoma de Puebla, Universidad de Guadalajara and Universidad Autonoma del Estado de Mexico. Universidad Autonoma de Aguascalientes (Mexico) and Universidad Nacional de General Sarmiento in Argentina are among the youngest institutions in this group.

*Why does this study address undergraduate programs?*

On the one hand, we must bear in mind that Latin American universities follow the French model of five-year educational training. This prepares the graduate to perform at a professional level, equivalent to that of a Master's degree in the United States. Nevertheless, students may follow postgraduate courses with the intention to specialize in areas of their interest.

On the other hand, there is growing evidence among graduate planning schools that those students with a Bachelor's degree in urban or environmental planning sciences have a better understanding of the urban problems and are more sensitive to urban needs than those with a different background[6]

The following is the first attempt that analyzes the Curricula of Latin American planning institutions that are educating the planners for the 21st Century in this Region.

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[6] XXII Encuentro RNIU; *Congreso Latinoamericano sobre la Formación de Posgrado en el Análisis Territorial*. Septiembre 1999, Tijuana, México

Names of Institutions reviewed and year founded:

| | |
|---|---|
| Universidad Autónoma Metropolitana, UAM. México City. | 1975 |
| Universidad Autónoma de Aguascalientes, UAA. México. | 1980 |
| Benemérita Universidad Autónoma de Puebla, BUAP. México. | 1992 |
| Universidad Nacional de General Sarmiento, UNGS. Argentina. | 1998 |
| Universidad Simon Bolivar, USB. Caracas, Venezuela. | 1974 |

## PLANNING EDUCATION IN MEXICO

*Universidad Autónoma Metropolitana, UAM. Mexico City*

Background and Degree Name

Mexico has had in Latin America a renowned tradition in planning education ever since planning educator Domingo Garcia Ramos pioneered the field with his book Urbanismo, a prospective of urban development in Mexico for the decades of the 60s and 70s.

Accordingly in 1975 Universidad Autonoma Metropolitana (UAM) in Mexico City started the first five-year training planning program in Mexican higher education.

The original degree name, up to 1998, was “Human Settlements Designer” (Diseñador de Asentamientos Humanos). In 1999 the degree name changed to the more generic “City and Regional Planner” since the denomination in Spanish “Planificador Territorial” covers both levels (urban & regional).

The educational aim of this program is to train future planners with an interdisciplinary vision to solve problems concerning community, political and economic issues in urban centers or regions. The program covers various topics such as demography, housing, transportation and utilities.

Student Enrollment and Degrees Granted

The 2000-2001 academic year enrollment was 261 students. The degrees granted since 1980 have been 542. Of these, 94 are City and Regional Planner (Planificador Territorial)

Faculty Composition

Fifteen full-time and five part-time. Of these, five of the full-time professors have doctoral degrees.

The five-year program in Urban Planning

- Structure

The program of this University is, together with USB's (Venezuela), a pioneer in urban planning education in Latin America (1975). It is organized into three main academic modules or academic stages for planning learning:

1) Foundations in planning learning
2) Human Settlements interdisciplinary learning
3) Planning the city and its regional setting

- Contents

1) Foundations in planning learning

This is an introductory first year dedicated to establishing the conceptual framework delivered to all new students in planning and related fields. The courses in this first year are concerned with planning and societal needs, the city in history and its relation with regional networks, the inter-disciplinary nature of planning studies and the interweaving between city and social development.

2) Human Settlements interdisciplinary learning

This module is concerned with the theory and practice of planning in the following environments:

a) Urban space and the urbanization process
b) Environment and its relation with urban development
c) The production of the urban fabric: social dynamics and city management
d) Housing and urban development
e) Commercial activities within the city and land use marketing
f) Mobility, land use and forecasting development growth

3) Planning the city and its regional setting

In this stage the student is confronted with real-life case studies on three levels:

a) Community planning
b) City Planning
c) Regional Planning

Employment

After a student graduates from a five-year program in Latin America he is considered a professional capable of performing independent work. The UAM graduates

work mostly in the federal and state governments due to the fact that the school is located in Mexico City where most federal agencies are. There are also a great number of professionals who pursue postgraduate studies at the same University (UAM).

Lately, after having built a good reputation, graduates from UAM establish their own firms as consultants nationwide.

*Universidad Autónoma de Aguascalientes, UAA*

Background and Degree Name

The University Executive Board first approved the Universidad Autonoma de Aguascalientes, UAA (State University of Aguascalientes) five-year training planning program syllabus in 1980. The first urban planning degrees were granted in 1985.

The degree name is Licenciado en Urbanismo (certified urban planner). The aim of this program is to train planners who will deal with the management of urban and regional issues in order to enhance the urban quality of communities through envisioning creative policies of an interdisciplinary nature. The program includes urban structure analysis, morphology, community development and public policy.

Student Enrollment and Degrees Granted

In the 2000-2001 academic session, student enrollment has been 75. Degrees granted since 1985 number 120.

Faculty Composition

Seven full-time faculty hold Master's degrees, as well as eight part-time (one doctoral degree). Interesting is the fact that 65% of the faculty members have completed undergraduate and graduate studies in urban planning, while the other 35% have done so in architecture and the social sciences.

The five-year program in Urban Planning

- Structure

The academic structure of the UAA program in Urbanismo is set in three main areas:

a) Theory
b) Technology
c) Urban laboratories and studios

- Contents

a) Theory groups urban planning, environment, sociology, law, economic theory and foundational concepts.

b) Technology features all those courses that serve as the tools used to study and analyze urban phenomena such as statistics, demography, accounting, photogrametry and GIS.

c) Studios, case study seminars and computer labs are used to simulate real-world case studies that sometimes relate to faculty research and consulting. The focus of this school tends to the physical-design approach, with some concern for community development and city planning regulations.

Employment

Evaluating what graduate urbanistas can do to practice their careers is an important indicator of what they have been trained to do at school.

Aguascalientes is a small state compared with its neighbors. The capital city of the same name is the only city that counts (others are only small poorly developed towns). Therefore, most of the graduates stay in the city of Aguascalientes to take jobs within the city and state government frameworks (83%), while 12% work in neighboring states and 5 % abroad for postgraduate studies.

*Benemerita Universidad Autonoma de Puebla, BUAP*

Background and Degree Name

The urban planning program at Universidad de Puebla has focused on environmental issues and the design approach to solve urban problems.

The program denomination is *Licenciado en Diseño Urbano Ambiental* (certified Environmental Urban Designer). It was approved by the Academic Provost in 1992 and initiated in 1993. The first degrees granted were issued in 1998.

The training develops skills in urban processes including urban history, urban morphology, urban design, advocacy planning, and environmental planning. In this sense, Geographical Information Systems play a crucial role as the technique to deal with remote sensory images used for forecasting and thus better planning solutions.

A special area of concern at this school is dedicated to the interweaving of utilities and construction costs.

Student Enrollment and Degrees Granted

The 2000-2001 student enrollment has been 328; 42 degrees have been granted since 1998.

Faculty Composition

Seventeen full-time and nine part-time. Of these, only three full-time professors have doctoral degrees. Twelve have done postgraduate studies in different fields, mainly urban and environmental planning.

An important indicator of the school's orientation is the fact that most faculty have, as a first degree, architecture (28) and civil engineering (4).

The five-year program in Urban Planning

- Structure

- The emphasis of the urban planning program at BUAP is centered on environmental design.
- The course's structure of the Environmental Design program at BUAP is organized within the framework of the following fields of knowledge:
    a) Theory and methods
    b) Technology
    c) Environmental Design Studios
    d) Design Applications Laboratory

- Contents

a) The section responsible for teaching theory involves the foundations of planning and design concepts. The methods area involves research foundations, multimedia techniques, planning techniques, ordinance surveys and regulations.
b) Technology comprises courses related to quantitative methods such as statistics, urban cartography, remote sensing and urban programming. It also involves urban administration to address managerial issues for urban growth financing.
c) The main framework for this career is based on several studios as part of environmental design studies, deriving from basic design training, multimedia techniques and complex urban design projects.

d) This section is dedicated to obligatory optional courses (from a set of ten) that give the student the opportunity (based upon courses available) to apply theoretical background knowledge to practical exercises in real-life problems. This is the lab where case studies may use GIS, multimedia techniques, discussion seminars or studios on specific problems.

In order to obtain diplomas, students must serve an internship, whether in a government agency or in a consulting firm. There they should exercise their training skills in planning. Failure can result in repeating the internship.

Employment

Graduates from Benemérita Universidad Autónoma de Puebla, BUAP go to jobs offered mostly by the state and local governments (60%). Universities (30 %) and the private sector (10%) account for the rest.

Professional Certification

In Mexico, the right to practice professionally is certified directly by the Department of Public Education (Secretaría de Educación Pública, SEP). Its Office of Professional Registration maintains records. Every graduate with a degree granted by a Mexican University can then practice the profession for which he/she earned a diploma throughout the country.

## PLANNING EDUCATION IN ARGENTINA

*Universidad Nacional de General Sarmiento, UNGS. Argentina*

Background and Degree Name

Argentina was the first country to initiate postgraduate studies in urbanism in Latin America[7] (1949) when the Institute of Urbanism was created at Universidad de Buenos Aires. Nowadays postgraduate studies in urban planning or related fields have proliferated throughout Argentina.

In 1993 Jose Luis Coraggio, a renowned social scientist in Latin America who has long worked in development issues in Mexico and several other countries in the hemisphere, joined the experts' group which had established the foundations for the

[7] Randle, Patricio. (1977). *OIKOS, Asociación para la Promoción de los Estudios Territoriales y Ambientales.* Argentina

creation of Universidad Nacional de General Sarmiento in the Metropolitan area of Buenos Aires, Argentina.

In 1995, university activities were initiated. They followed the principles for a Center of studies dedicated to the needs for industrial development in conjunction with urban growth. This is the first university in Latin America (and most probably in the hemisphere) that was born as a university center for urban studies since the programs, research, and major fields careers offered are all related to urban issues (urban ecology, urban sociology, local government and urban planning).

In this sense, Universidad Nacional de General Sarmiento and its academic programs offer an important response to problems of community development. It also offers mediation techniques for the different social groups and interests contending in local governments while implementing plans for political feasibility, environmental sustainability and urban growth management.

All the above is supported by a strong commitment to research, community work and teaching. These are considered strategically related activities to serve people's needs, leading to national development.

The UNGS adopted an academic structure based upon Institutos or colleges, where academic programs find their home for teaching, and Centers for research and community work activities for the Northeastern part of the Metropolitan area (circa two million inhabitants) from which 84% of the students ranging in age from 18 to 40 come. One particularity at this University is that most students (70%) are between 20 and 30 years old, and more than 50% are women. The urban planning program at UNGS began in 1998.

## Student Enrollment and Degrees Granted

Due to the fact that studies in urbanism are just beginning, there are currently only 27 students enrolled in urban planning. However, local government studies have 59 students, urban ecology, 53, and urban sociology, 63.

Overall enrollment in the academic year 2000-2001 at the Instituto del Conurbano (College for Urban Studies) was 202 students. The urban planning program at UNGS began activities in 1998 and so does not yet have graduate students.

Faculty Composition

There are 34 faculty members, of which seventeen have tenure. Eleven are full-time (1 professor, 3 associate professors, 2 lecturers and 5 readers) and six are part-time. The educational level of the faculty is as follows: 4 Doctors or PhDs, 9 with Master's degrees and 21 with undergraduate diplomas from different disciplines.

The primary disciplines that faculty hold are mostly architecture (18%), economy (15%), sociology (15%), political science (15%), biology or natural sciences (15%), anthropology (9%), geography (6%), one professor from psychology (3.4%), and one from literature (3.4%).

These percentages show a faculty composition between architecture, economy, sociology, political and natural sciences.

The five-year program in Urban Planning

The academic structure at UNGS is organized on two levels. The first level comprises the first three years of studies, defined as foundational knowledge, which lead to a diploma emphasizing the background for the major field that the student will further study. The following fields are offered at UNGS:

- Structure

1) Basic Sciences (Physics and Mathematics)
2) Humanities (History and Philosophy)
3) Social Sciences (Sociology and Economy)
4) Management (Administration and Mathematics)
5) Technology (Technology and Mathematics)

The second level comprises two years of professional studies after completion of the first level (three-year) courses. There are four majors offered for study:

1. Local Government
2. Urban Ecology
3. Urban Planning
4. Urban Sociology

- Contents

The urban planning program core areas include:

a) Urban Geography
b) Urban Ecology
c) Growth Management, and
d) Technology (Systems approach, Statistical methods, GIS)

The capabilities developed by urban planning training at UNGS are dealing with local government issues such as growth management, group negotiation and working with interdisciplinary teams.

Those graduated from UNGS should be able to analyze and evaluate city problems and produce alternative solutions to upgrade the quality of life. All of these responses should be made within a framework of financial feasibility to guarantee sustainable development over time.

Employment

Universidad Nacional de General Sarmiento, UNGS from Argentina will have its first-degree candidates in the year 2003.

Professional Certification

Not yet available

## PLANNING EDUCATION IN VENEZUELA

*Universidad Simon Bolivar (USB), Caracas*

Background and Degree Name

Simon Bolivar University introduced the urban planning program at the undergraduate level in 1974, pioneering in this way the five-year training programs in Urban Planning in Latin America (first degrees granted in 1979).

Modern Urban Planning in Venezuela arose under the influence set by the French urbanism tradition, the most notorious expression of which was developed in 1939 with the "Monumental Plan for Caracas," better known by its author: Plan Rotival. Rotival was an alumnus of the Ecole Centrale in Paris and belongs to the generation of Le Corbusier. Moreover, he was a professor at Yale[8] prior to 1930 and was hired by the firm of Henry Prost, who was the CEO of one of the most renowned French firms of the 1930s which were designing urban plans for several countries in northern Africa, the

[8] Maurice Rotival (1892-1980). *L'Architecture d'Aujourd'hui*, 208 Paris: April 1980

Middle East and Latin America. They were in charge of the urban renewal of Caracas as well.

Nevertheless, in 1920 private developers started building the first socially oriented subdivisions in Caracas[9]. In 1928 there appeared the first Housing Act[10]. This created the first Housing Agency (called Banco Obrero), and this in turn was responsible for the first public housing developments in Venezuela.

As in most Latin American countries, education in urban planning (better known as education in urbanism), was first taught in the schools of architecture as optional courses at the higher levels for those interested in this field.

The first Center dedicated to the broader issues in national planning and development research in Venezuela, called Centro de Estudios para el Desarrollo, was founded in 1961 as an initiative from the academic vice-chancellor's office at Universidad Central de Venezuela (UCV). UCV later opened postgraduate studies for development sponsored by the United Nations' educational program. Six years later, in 1967, the Instituto de Urbanismo opened its doors as a Research Center pertaining to the College of Architecture at UCV (Universidad Central de Venezuela) with an orientation on specific urban problems at the local and city scale. This Institute created the first postgraduate program in urban planning in 1969.

In 1971 a new Research Center was created at Simon Bolivar University (a new center for higher education created in 1969), as a response to the country's development needs for a new generation of professionals. Professor Omer Lares (who also founded the Instituto de Urbanismo at UCV) headed this Research Center. Featuring a broader scope, the Institute for Urban and Regional Studies (Instituto de Estudios Regionales y Urbanos, IERU) was the place where the idea for a program on undergraduate studies in planning was generated.

The professional commissioned to develop the first program was an architect graduated from UCV who held a Master's degree in planning from the graduate school of design at Harvard. This man was Alberto Morales Tucker, who in 1979 graduated the first generation of urban planners (as a professional career) in Venezuela.

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[9] El Banco Obrero en Caracas, 1928-1945. INAVI, 1985

Student Enrollment and Degrees Granted

The 2000-2001 student enrollment was 19. Degrees granted since 1979 number 448 over a span of 21 years.

Faculty Composition

There are 18 full-time faculty and 11 part-time. Of the full-time faculty, nine hold Doctoral degrees and nine Master's degrees. Among the eleven part-time faculty, nine hold a Master's degree.

The five-year program in Urban Planning

The studies structure in urbanism at USB mandates a first year in common with architecture's syllabus. After the students successfully get done this first year of foundational knowledge, professional studies follow in the second level, comprising four more years in three core areas.

- Structure and contents

The second level comprises four years of professional studies after completion of first level courses. During these four years, students have the opportunity to be trained in three areas that have been defined as core areas for the professional in urban planning. These areas are:

a) Planning theory, social and demographic aspects and local government. This area groups courses which explain the foundations of planning theory viewed from the historic and evolutionary concepts approach. It also includes the research foundations courses developed by the social sciences where the relation of society to planning is explained. Understanding of local government is explored in courses which draw on insights from public policy theory and public management practice.

b) Land use and comprehensive planning. This area comprises most of the studio courses including environmental analysis, physical and local planning, community development, small town and city planning, transportation, GIS, and plan implementation.

c) Growth management. This area includes courses in statistics, economy at city and regional scale, urban project evaluation, real estate, operational planning, utilities programming investment and housing project feasibility assessment.

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[10] Ley del Banco Obrero, Caracas: Gaceta Oficial, June 30, 1928

Graduates from USB receive professional certification and are qualified to work with interdisciplinary teams to develop land use plans, local government planning, growth management, and group negotiation. They should be able to evaluate urban projects meant to guarantee sustainable development over time.

Employment

Universidad Simon Bolivar has granted 448 degrees over a span of time covering 21 years. Of these graduates, 30% work in the public sector (federal or local government), 40% in the private sector (consulting firms) and 30% as freelance consultants. Here it is interesting to observe that most USB graduates are working in the private sector where they are highly regarded (mostly in firms working on large government projects), whether as freelancers or as consulting firm members.

Professional Certification

In Venezuela, university graduates desiring to practice their career must register their granted degree with the professional collegiate institution. In the case of urbanistas (the degree conferred upon urban planners in Venezuela), they register with the College of Engineers.

## CONCLUSIONS

*Planning Education and Sustainability in Latin America*

Mexico and Venezuela pioneered undergraduate planning education in 1975. Nonetheless, some graduate programs began in the early 70's. Today almost every country in Latin America has urban planning programs at the graduate level ranging from urban planning, transportation, environmental planning, housing, urban design, and urban governance to public policy.

In Mexico there are six universities offering undergraduate urban planning training. Venezuela is the home of the oldest (25 years) undergraduate program in urban planning in Latin America. It is taught at the school of planning at Simon Bolivar University. Today the University offers two graduate programs, one in transportation and one in environmental planning.

Although Latin American social patterns seem different, some similarities can be

found based on the international influence of Western society now called globalization. The educational model at most planning schools is based on Western planning education standards[11].

Accordingly, planning education tends to be the indicated instrument to establish common ground for negotiation among the different social, economic and political forces that evolve within a city. An effort to deal with local problems in social, economic and environmental terms has led us to conclude that although these problems are very particular to Latin American settings, there remain some common features that can be considered *universals* from the theoretical point of view if adapted to the specificity of local trends.

The curricula in Planning Education in Latin America show a great concern for environmental issues. Most schools include environmental planning courses and awareness for the social factors that interweave the urban fabric. However the term *sustainability* has economic and political implications too. Planners can not build cities without the needed political feasibility to ensure a workable plan. Nor can a planner draw growth ideas into the city without knowing how much the plan may cost.

Latin America has become in the last decades a very volatile Region in social and economic terms. Countries that have a tradition as long standing democracies (Venezuela) are becoming a foothold to spread the influence of Cuba in South America. Others (Argentina and Mexico) whose economies ten years ago followed the principles of new liberalism and were the example of the free market are now in great trouble to achieve a decent rate of economy growth.

Central America countries after a long internal struggle have a rebirth from the ashes at the cost of national identity, since their economies are becoming a resemblance of a Puerto Rican like-State highly dependent from the U.S. Only Chile can be portrayed as a successful democracy with a healthy economy, but we all know the cost of it.

What I am trying to address in these conclusions is that planning education Latin America has the ingredients to create good planning practices, including sustainability. The main problem that Latin America faces is uncertainty. This uncertainty is highly related to sustainability and the big question is: How we can build sustainability in a highly volatile environment?

[11] In fact, all the pioneer faculty at these schools were educated at European or U.S. Schools of Planning.

The conclusion at this point is that planning schools should build the basic principles by which planning education would be a feasible instrument for development within an acceptable political framework that should lead to the next stage of development in Latin America. To make this possible, there must be a change in the political attitude towards the planning field where political feasibility and a sustainable economy are the key words to achieve these goals.

To conclude, it must be said that the main issues for planning education and sustainability in Latin America are defined by the following principles (which can be defined as *universals* in planning training), these are:

a) Social Sensitivity, in order to address needs in a socially appropriate manner according to local problems.
b) Economic Feasibility, always bearing in mind that funding resources are always very limited and that priorities should be made to achieve primary concerns when working in highly volatile economies.
c) Environmental concern, as part of the balance that maintain appropriate standards of living conditions that preserve nature as an asset to secure quality in urban environs.
d) Staying up to date on new technologies to solve problems fast and accurately.

Appropriateness, feasibility and adaptation to local realities are a *must* to achieve the four pillars for sustainability:

a) Socially Accepted
b) Politically Feasible
c) Financially Sustainable
d) Ecologically Balanced

**References**


Almandoz, A. (1997) **Urbanismo Europeo en Caracas,** Caracas: Equinoccio.

Benevolo, L. (1975) **Storia della Città,** Milan: Laterza.

CEPAL, Report. (1998) **Ciudades Intermedias en América Latina y el Caribe: Propuesta para la Gestión Urbana.** Rome: DGCS (Italian Agency for Cooperation), Ministero degli Affari Esteri, Italy.

El Banco Obrero en Caracas, 1928-1945., (1985) **Ley del Banco Obrero**, Caracas: INAVI, Gaceta Oficial, June 30, 1928

Marcuse, P. and Van Kempen, R. (1999) 'Is there a New Spatial Order?' In **Globalizing Cities,** Oxford: Blackwell.

Nweihed, K. (1999) **Globalización: Dos Rostros y una Mascara**. Caracas: IAEAL, (Instituto de Altos Estudios de América Latina).

Randle, P. (1977). **Asociación para la Promoción de los Estudios Territoriales y Ambientales**. Buenos Aires: OIKOS.

Rotival, M. (1980) 'Maurice Rotival', Paris: *L'Architecture d'Aujourd'hui, 208*

XXII Encuentro RNIU (1999) Tijuana: Proceedings *Congreso Latinoamericano sobre la Formación de Postgrado en el Análisis Territorial.*

# Appraisal of Planning School Curricula as a Tool for Influencing Sustainable Settlement and Societies in Nigeria.

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*Abstract*

*Sustainable settlement and societies can be taken to mean the creation of the conditions of good environment for habitation while improving at the present state without compromising the attainment of good habitable environment for the future.*

*Policy makers, planners, environmentalist etc have brainstormed on the best way to make that sustainable settlement achievable but things seem to be getting worse. However, planning school curricular to contain key issues on the environment for the consumption of our education systems is a very recent approach. Thus would ensure that the pupils, students and in fact everybody would have the opportunity of starting early to be environmentally aware or conscious which is very central to the attainment of that desired sustainable settlement and societies.*

*Though the issue of sustainable development, and environment started earlier in the developed countries with the establishment of the National Environmental Protection Act in the United States in 1969, Nigeria soon embraced the scene and has continued.*

*The main contributions of planning curricula to aid the imperatives of planning for sustainable settlement are:*

- *In areas of early education on the environment for early appreciation of environmental issues for planning.*
- *Better health, hygiene and basic sanitation education help to prepare a person for precautionary measures.*
- *Proper adaptation to environmental quality guidelines have helped to minimize cases of deaths from environmental degradation activities etc.*
- *In addition, people are prepared early to take to simple environmental management approaches that all help to yield the sustainable settlement desired.*

*Planning school curriculum and its implementation require the involvement of Government, Policy makers, teachers, students and the generality of the people to ensure the planning for a better settlement and societies through appropriate positive behavior to pressure the quality of the environment. Thus can be given impetus by ensuring that teachers education curriculum emphasized environmental concepts, skill, values and prepare teachers to transfer this knowledge with ease and also the use of inter-disciplinary and multi-disciplinary approaches to environmental education*

***Key words**: Curriculum, Societies, settlement, education*

# Appraisal of Planning School Curricula as a Tool for Influencing Sustainable Settlement and Societies in Nigeria

## Introduction:

Sustainable settlement /societies can be said to mean the creation of the conditions of good environment for habitation while improving on the present state without compromising the attainment of good environment for the future. In education, proper curricula development can help achieve this.

The word curricula simply means the courses of study. Curricula are usually prepared in schools –primary, secondary, and tertiary institutions, and other formal educational areas. According to Anyiam and Onwe (2001) curricula simply means the contents, the subject matters and all experiences that are planned for the education of the child. He emphasized that curricula consist of those essential things the child must learn in school if he is considered as educated person.

In drawing school curricula, curricula activities (school subjects) and co- curricula (e.g. sports, debates) are integrated to ensure an all round development of the child.

As a matter of fact, the problem is on proper planning of the school curricula to have weight and bearing on important areas of human development –school subjects, sports, tourism\recreational, environmental preservation and management, settlement, and problems and the like.

Planning per se, is a future oriented action or a process of making a rational decision for the future. Thus, Mba et al (1992) summarized that planning is an anticipation, prediction, and pre-emption of the future with a view of preparing for it, and aimed at solving future problems. Therefore, the curricula is planned so as to include ways to meet the imperatives of planning for more sustainable settlement and societies. One thing is clear, that is that as the curricular are well planned and important diverse issues of our societies included, the pupils and students starts early to adapt to any requirement (s) for better results included in the curricular. The environment is a very important companion of man hence the saying ‘man and his environment. It is in the environment that all mans activities take place. Currently, the environment in which we live is everyday degraded by activities from industry, commerce, agriculture domestic, settlement etc as man struggles for food and comfort on earth. Thus all these activities impinge negatively on the environment by changing its tranquil and original state resulting to pollution, ozone layer depletion, climate change, adverse health problems, environmental degradation etc. It has

therefore become necessary that the environment, society, our settlement etc have to be protected and preserved. One way of achieving a better result than present would be to redefine and readjusts our school curriculum to address these issues Nwafor (1998) has found that environmental education through proper curriculum development for schools and other measures are important component of the global general concern for the protection of the environment. According to Igwe (1998) curriculum developers and planners have vital roles to play in this regard by helping to inculcate course & environmental education so as to help guarantee sustainable settlement and societies.

The state of the environment which we settle and on which the society is existing has been deteriorated In a tropical environment like ours, the implication of development, and interference with there ecosystem is immense and according to Arunsi (1998) include the acceleration of rate of erosion, flood, drought, desertification, degradation, pollution, landslide, climatic change, biodiversity loss, deforestation, land, water, air and energy resources depletion and utilization, problem of transportation, housing and industrialization, waste generation, collection and disposal, education, medicine, health and sanitation, politics, ecological hazards etc. Above are the major issues confronting the environment, settlement and the society. Sustainable settlement and societies require significant changes in the philosophical religions and educational orientation of the people. This write up is based mainly from an environmental and planning angle/perspective.

**Efforts at General Environmental Awareness**

The disintegration of ‘Torrey Canyon’ in 1967 and the accidental striking of oil by an offshore drilling crew in the region of California in 1969, caused large spillage leading to enormous aquatic and marine damage. These two events led to consciousness of people concerning the quality of the environment. Consequently the National Environmental Policy Act (NEPA) was enacted and passed in 1969. The Act also created the Council on Environmental Quality (CEQ).

Subsequent environmental quality preservation measures followed suit and in 1972 a governing council for environmental program, United Nations Environmental Programme (UNEP) was set up. Different countries later on set up their environmental quality monitoring agencies and started environmental quality awareness enlightment. Global environmental quality seminars/workshops were

organized to sensitize everybody, but especially the environmental managers on the need for a quality environment. For example, the Centre for Environmental Management and Planning (CEMP) was established in 1972 and had organized more than 15 annual International Seminars/workshops on Environmental Assessment and Management sponsored by WHO and UNDP (Umeh and Uchegbu 1997).

In Nigeria, the environmental quality awareness campaign was facilitated via the establishment of the former Federal Environmental Protection Agency (FEPA) in 1988. The main task of FEPA among others included the protection and development of the Nigerian environment plus policy incitation with regard to environmental research and technology. A rectional policy on environment (NPE) came into being in 1989 which provided standards and guidelines for the establishment of industries or carrying out of project to minimize environmental harm.

Various states and local governments started setting up state and local governments environmental agencies.

The federal government during the leadership of Buhari and Idiagbon introduced a compulsory monthly sanitation exercise for the nation. A kind of environmental quality preservation was the objective of the government. The general populace then became environmentally aware of the need for good environment. People later saw this need and supported the government. Later governments however were not aggressive the like Buhari government. Emphasis on environmental sanitation was merely theoretical and not practical. The Federal Environmental Protection Agency (FEPA) was later changed to become part the Ministry of the environment. The State governments on their own set up their individual state environment protection agencies. In Lagos for instance the Lagos state Waste Management Authority is in charge while in Enugu State, the Enugu State Waste Management Authority (ESWAMA) is in charge. General environmental education has been passed by these agencies through workshops/seminars. Establishment of new industries were to undergo a mandatory environmental impact assessment (EIA) while existing ones should be undergoing periodic environmental auditing (EA). Through radio jingles and televisions many people are now aware of environmental issues and the need for preservation.

**Some Hindrances**

Some problems militate against the Planning for the sustainable environment and societies. The problems range from improper teacher orientation to inadequate environment education in our educational levels. A study by Nwakoby (2004) showed a lot of things. According to her, teachers who are predominantly women lack the requisite scientific and technological knowledge and skill to competently educate and train on environmental issues. However, the issue is whether the teachers (whether male or female) got enough training or not. This is because when a teacher is properly trained that he/ she will be in a position to impart knowledge. Another issue is whether such teachers imbibe environmental issues in themselves and the students.

It has been noted that improper teacher orientation, for example, has repercussion for environmental education and perseverance. The Planning, Research and statistics Department of the Ministry of Education Awka (1995) revealed that the number of teachers trained in the primary and secondary levels were greater than at tertiary level

**Table 1.0: Trained and Untrained Teachers at Three Educational Levels**

| Primary School level | | | | | Secondary School Level | | | Tertiary level | | |
|---|---|---|---|---|---|---|---|---|---|---|
| S/No | Year | Trained | Untrained | % of Untrained | T | U | % of u | T | U | % of u |
| 1 | 1991 | 12802 | 198 | 1.5 | 5553 | 818 | 14.7 | 20 | 19 | 95 |
| 2 | 1992 | 15505 | 128 | 0.8 | 6693 | 958 | 14.3 | 73 | 38 | 52.1 |
| 3 | 1993 | 19045 | 185 | 0.9 | 6556 | 862 | 13.1 | 44 | 51 | 115.9 |
| 4 | 1994 | 17905 | 124 | 0.7 | 6092 | 587 | 9.6 | 42 | 50 | 119.0 |

**Source: Planning, Research and statistics, Dept Ministry of Education, Awka,**

Note:

T =trained

U =Untrained

% of u =% of Untrained

The table shows that an appreciable number of teachers are trained in the primary school level in relation for the number of untrained teachers. For example in 1991, the percentage of untrained teachers was 1.5%, only to decreases to 0.8% in 1992: 0.9% in 1993 and 0.7% in 1994 the story was not the same in the secondary school level

where the percentage of untrained teachers were 14.7%, 14.3%, 13.1% and 9.6% for the years from 1991-1994. At the tertiary level, the number of untrained teachers in the technical colleges rose appreciably reaching an all time high of 119% in 1994. With those results, it becomes imperative that teachers be adequately trained for the task of imparting science and technology knowledge and skills for fighting environmental problems and hazards towards sustainable environment and settlements. According to Nwakoby (2004), teachers and lecturers are expected to intensively and sustainably trained in the concepts, organization and management of a new curricula that is expected to cover relevant environmental issues.

The issue of inadequate environmental education is a mater for debate (Igwe 1998; Nwafor 1998 etc.) Some authorities believe that environmental education starts from primary school to tertiary level since environmental issues were supposed to be integrated in the general syllabus. Others wanted a situation where environmental issues were boldly marked out for teaching in the schools instead of merely being integrated.

In any case all these views may be accommodated; the next discussion may make the issue clearer.

**How Has Curricula Planning Helped?**

Curricula planning it has been observed has a great role to play in imbibing the culture of conscious environmental protection in our educational set up for the consumption of both pupils and students. According to Igwe (1998), this onerous task of disseminating environmental concepts, skills, attitudes and participation and in aiding to maintain equilibrium between the quality of human life and human environment is a major task for curriculum developers. However, most school curriculum at all levels was yet to be environmentally oriented as at late 80s (Igwe 1991).

The advent of environmental protection globally helped to raise awareness on environmentally issues at least at the governmental level. Agency like the former Federal Environmental protection Agency (FEPA) and the states environmental protection agency (SEPA) were established. Generally, therefore, general environmental awareness of the citizenry was helped or facilitated by the then FEPA, (see preceding section).

The inclusion of environmental issues in the curriculum of our educational system has been gradual in aspect. Before now, environmental issues were contained in the social studies for junior secondary schools JS1 – JS3. The problem was that it may be difficult to separate environmental issues from the core subject of social studies. However environmentally conscious teachers would always differentiate such environmental issues and teach same. A marginal positive effect was expected to be imbedded on the students/pupils. Even basic primary science courses have environmental issue such as sanitation tips and basic hygiene tips. These tips have helped in no small way in ensuring sanitation in our homes. This is because some of these students and pupils at their level carry such educational tips home to practicalise them. Though the developers of these early textbooks or curriculum could not emphatically called them environmentally topics that is why it is important to train teachers for environmental education because by so doing, such teachers would easily note environmental issues and teach them adequately. According to Igwe (1998), an effective teacher needs environmental knowledge, skills, attitudes and participations, which are essential ingredients in environmental education, and which can then put in a better position to impact same if by extension. It is contained in the school curriculum.

Environmental education is also contained in the course in geography from senior secondary 1 to 3. Here issues on environmental hazards like deforestation, soil erosion, environmental pollution etc are extensively discussed in terms of definition, causes, effects and control. This environmental topic is a recent inclusion in the curriculum. The aim was to raise awareness on environmental issues at the pupils/students local environmental and elsewhere. Of course universities have their curriculum embellished with courses on environmental such as Geography, urban and regional planning, survey etc.

Recently, a new field on the environment came into existence called environmental management and is now fully in corporated in the curriculum of our institutions of higher learning which teach environmental courses. Presently there is the department of environmental management at the Enugu state university of Science and Technology (ESUT) the university of Nigeria Nsukka (UNN) and elsewhere.

All these planned school curricular on the environment have been adequately adapted towards meeting the imperatives of planning for sustainable settlement and societies. The true essence of planning for man to be better off. The awareness gotten

from the improved environmental curriculum has helped students to note the basic principles and apply them to the settlement or areas where they are. In such a case, it is now easier for planners to implement their plans because a greater percentage of the utizenry are environmentally aware and prepared to implement the contents of any given plan. According to Nwafor (1998) environmental education (as may be contained in the planned curriculum) is important because it will expose beneficiaries to variety of environmental issues and strategies that would help to restore the environment, so as to realize the objectives of planning from our planners.

The school curriculum so we fashioned to highlight the importance of quality environment has helped in the area of health. Sustainable settlement and societies are got because youth awareness on environmental diseases (got from environmental education) has wiped out ignorance and raise sensitivity to environmental protection for the child's survival. Thus some preventable diseases like malaria, river blindness, dysentery etc are minimized because the people have learnt how to control them.

Planning school curricular has helped in planning for a better settlement and societies in several other ways if it is borne in mind that the essence of the planning school curricular was to impart environmental education for better settlements.

It has helped in the planning of the environment and provision of policies to reduce the number of children and people who die from a degraded environment. According to the state of the environment (1990,p9) some 14 million children under the age of 5 die annually in developing countries as a result of lack of safe drinking water, poor sanitation, environmental pollution, common diseases and malnutrition. But planning school curricular which contain details on self management of the environment and opportunities there in would have helped in the reduction in the misfortune since the knowledge acquired by the people via the environmental issues integrated in the school would help then adapt. Any such other environmental planning would easily be usefully implemented.

Again, qualitative life could be realized for everybody through genuine environmental quality preservation, also realization largely from fully integrated environmental issues in school curricular. If about 30% of the Nigerian population attend schools yearly then a major impact would have been made on environmental awareness.

Environmental education imbibed in school curricular planning promotes a greater awareness of the joy and beauty of nature. According to Igwe (1998)

integrates many subject areas and promotes sensitivity to their relatedness. It inculcates the acquisition of complex skills for making decision inducing values and problem solving. Accordingly “the goals of planned school curricular on environmental education are to foster a clear awareness and concern on economic, social, political and ecological interdependence, provide opportunities for the acquisition of knowledge, values, attitudes, commitment skills and the creation of new pattern on behaviour toward the environment, settlements and the societies at large (the inter governmental conference on Environmental Education, 1977).

Planning school curricular has also been used to plan for better settlement and societies by virtue of its educational content on the environment. It is only when you read or are educated that you become aware of something. Ignorance on the environmental issues or ecosystems would worsen the environmental quality for Igwe has stated emphatically that ignorance of the working of the ecosystem/environment leads to the destruction of the environment.

Planning school curricular would help especially the children to be involved in policies affecting them directly since they have a right to life, health education shelter water good settlement etc. Thus planning for the environment should also take the interest of the children along because through proper orientation in schools on environmental issues, they would be expecting their rights.

Also basic duties of the people toward environmental perseverance could be planned for such as a forestation measures and measures to control other environmental degradation problems,

- Application of simple waste management techniques such as sorting, recycling etc
- Garner knowledge and apply same on simple composting methods
- Gather knowledge and apply same on the safest means of disposing problematic waste such as polythene etc.
- Application of basic erosion/flood control methods such as afforestation and tree planting
- Provide knowledge on the management of drinking water in the urban and rural areas
- Application of measures in handling waste management equipment and in measures to be taken while working in any place to protect him/herself.

In these ways, the planning of school curricular can contribute in planning for a more sustainable settlement and societies.

Thus it is recommended that curriculum planning should be enforced on the curriculum developers for areas that there are lapses, to include courses in environment settlement and how to make there sustainable.

In order to achieve the objective, teachers should be trained to be environmentally aware and conscious to be able to impart environmental knowledge to others. According to Igwe (1998) efforts should be made in sensitizing policy makers and implementers. Parents and all socializing agents on the need for sustainable development for sustainable environment and settlements.

All said and done, the environment can be plunged back to a qualitative state for that call for sustainable settlement and societies.

**CONCLUSION**

The importance of planning school curricular for adaptation into planning for a sustainable settlement and societies cannot be over-emphasized. That would be the basic step if we hope to preserve our environment. This is because perception of the danger of inherent in environmental abuse is one step towards solving any problem on the environment. The essential steps entail the splitting of major environmental issues into bits and integrating item in the course of study spanning from the necessary to primary, secondary and tertiary institutions. Arrangements are required even to get people who are not in regular schools like nomadic herders, apprentrees businessman without or with education background and other such peoples. There is need to disseminate information about the environment.

Luckily for us, there is now nomadic education for cattle nomads. What would be required is to train teachers on environmental issues to train those people. It involves a lot of commitments from the government and the entire people. For the businessmen and others, workshops/seminars may be intermittently organized where environmental issues are treated by experts. I am emphasizing on environment because that is where settlements and the societies are located. If the environment is sustainable, then settlements and societies would be sustainable.

As a matter of necessity, teachers education curriculum should emphasize environmental concepts, skills, values etc and prepare teachers to transfer those

knowledge to pleasures with ease. Therefore school curriculum and teachers by extension should be exemplars in environmental management (Igwe, 1998).

If the curriculum on environment at any levels of our education is yet to be integrated. It should be done without further delay. And if the curriculum at all levels is already overcrowded, there would be a consideration to use interdisciplinary and multi-disciplinary approaches to environmental education.

**REFERENCES**


Anyim J and Onwe S (2001) Principles and Practice of Education Global Rays Academic Publishes

Arunsi, S. I (1998) Towards a Sustainable Environment and Development in Abia State in Arunsi SI and George N C (eds) Sustainable Environment and Development in Nigeria Whytem Publishers, Nigeria.

Igwe, M. M. (1998) Implication of Theories of Cognition in the Development of Environmental Education Curriculum for Pre-service Teachers in Nigeria, in Arunsi, S. I, and George W. C (eds) Sustainable Environment and Development in Nigeria, Whytem Publishers Nigeria.

Igwe, M M (1998) Environmental Education for Child Development, in Arunsi S I and George N. C (eds) Sustainable Environment and Development in Nigeria, Whytem Publishers, Nigeria.

Mba H C (1992), Ogbazi J U, Efobi K. O (eds) Principles and Practice of Urban and Regional Planning Nigeria, Mekslink Publisher Nigeria.

Nwafor J.C. (1998) "Waste Management as a Contemporary Environmental Education Issue in Enugu State" paper presented in a Workshop as Training Programme in Environmental Education Curriculum, UNN and NERDC 20 – 22 October.

Nwakoby F. U. (2004) " The Girl Child: Her Education and Training for Sustainable Environmental Management and Development" in Mba, Uchegbhu S. N., Udeh C.A. and Muoghalu L. N. (eds) Management of Environmental problems and Hazards in Nigeria, Ashgate Publishers Company USA.

Umeh L C and Uchegbu S. N (1997) Principles and Procedures of Environmental Impact Assessment (E.I.A) Computer Edge Publishers, Lagos Nigeria.

# Climate Change: Exploring the Literature and Research Opportunities

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## Abstract

*Scientific opinion is now unanimous that global temperatures are likely to continue to rise with concomitant extreme weather patters and events. There is a protean body of scientific literature available on global warming and climate change, modelling techniques for estimating 'heat island' effects, continuous light and related effects in urban areas and building design for more environmentally sustainable cities. The urban science related to climate change and its implications for human settlement is in its early stages. Nonetheless, climate change is already becoming a concern of insurance and actuarial industries as they begin to assess risk to human settlement, construction and other risks associated with atmospheric conditions that cannot be anticipated and modelled in relation to the built environment to the degree that previous weather patterns could.*

**Key words**
*Climate, global warming, extreme events, human settlement, insurance risks.*

## Introduction

In this paper we look at the current scientific knowledge on climate change in the planning and design of cities to provide a prospectus on the areas where research is needed to assist and craft better urban planning systems. There is little research available on the impact of rising tides, cyclones, high temperatures, severe wind storms, fires and floods in highly settled areas with mild climates. Within the next few decades most people in the world will live in metropolitan areas that will be subject to new and possibly traumatic climatic conditions. Many metropolitan areas historically lie in low areas near the sea or rivers where the damage from climate change will be most dramatic. There is little urban planning research that combines scientific knowledge about climate change and its likely effects on the planning and design of cities or suburbs. We believe an integrative research framework is needed for developing new and robust public policies, urban design guidelines and implementation measures because cities are under real not imagined threats from global climate change.

The recent Tsunami, while not directly attributable to climate change, is a graphic illustration of the devastation that changes in natural systems can have on densely populated coastal urban areas. Subtle impacts of climate change are already occurring that potentially present major problems for many cities around the world. Most of the world's largest cities, for example, are clustered around coastlines with fragile and vulnerable eco-systems. In fact London is already acting with the establishment of a climate change office for analysing empirical data to deal with the future threat of extreme sea level rise and its impacts on the city. In Australia, another illustration is that the last 15-20 years have seen erratic changes in weather patterns which are already impacting on major population centres— storms and wild fires in Sydney and Canberra and extreme heat in Brisbane. We explore the need to better understand climate change issues by reviewing some of the key literature and its impacts on urban areas. And we then suggest a research agenda to future planning scholars interested in climatic change for applied theoretical and policy research.

**Climate change**

The *Third Assessment Report* of the 'Intergovernmental Panel on Climate Change' (IPCC) brought world attention to the likely impacts of climate change (Metz 2001). Climate change is now at the forefront of debate with dire warnings that worldwide temperatures may rise from 5 to 11 degrees C. over the next 50-100 years (Stainforth et al 2005). In relation to human influences and human-induced changes in atmospheric composition, Karl and Trenberth (2003) observed that these changes are large enough to be considered outside the bounds of natural variability and that anthropogenic climate change is likely to continue for many centuries changing human and animal life patterns (See Adger et al 2003; Adger et al 1999). Crowley (2000) predicts that temperature increase in the late 20th century northern hemisphere has already established itself above the level of natural variability in the climate system and Hoffman (2005) argues that the 21st-century global warming projection has far exceeded the natural variability of the past 1000 years and is greater than the best estimate of global temperature change for the last interglacial period. If these predictions are correct and the current trend of a 3 degree C. rise in temperature continues, the Greenland ice-sheet will melt faster and could be all but eliminated except for residual glaciers in mountainous areas of that land mass (Gregory et al 2004). An occurrence such as this could raise global average sea-level by 6 metres which will require mega cities such as London and New York to start planning for the re-development of vulnerable low lying areas (See Friends of the Earth 2004). If these changes do occur they are likely to create

extraordinary wind and wave conditions, which are characteristic of climatic transition, and provide a continued rise in the atmospheric concentration of carbon dioxide ($CO_2$) largely because of anthropogenic emissions (Cox et al 2000; Rignot and Thomas 2002). Other data by Cox (2000) shows that regional variation in changes will lead to marked drying, most likely occurring in mid-USA and southern Europe and significantly wetter conditions in South Asia, with evidence of the ecological impacts of recent climate change from polar terrestrial to tropical marine environments. Hughes (2003) writing on climate change and its impact on Australia's ecological systems concludes that the continental average temperature is in the order of a 0.8 degree C increase since 1910 and that this rise has mostly taken place after 1950 (1998 being the warmest year). More significantly, however, Hughes raises as a major concern the night time temperature increase and concomitant decrease in the diurnal range. Hughes suggests that by 2030 an average of .07-4.8 degrees C. will lead to "…continued declines in rainfall with extreme events such as fires, floods, droughts and tropical storms" (Hughes 2005a). She also notes that this is a vexing issue for Australia with a large nocturnal animal population (Hughes 2003).

The decrease in the diurnal temperature range has been linked to human health with a high death rate during Europe's heat wave in 2003. Daytime temperatures in Paris rose to 40ºC, which was further exacerbated by night time temperatures at 25.5ºC plus for several nights. These temperature exposures are possible in Australia where air conditioning could fail in extreme events because of power surges. Those without air conditioning were the most vulnerable in Paris (Dorozynski 2003; Haines and Patz 2004). Kalkstein and Greene (1997) estimate that a net rise in weather-related summer mortality will dramatically increase if the climate warms as the models predict. One scenario suggested by Australia's major national research institute the CSIRO (2003) is that the average days in summer over 35 degrees C. in Brisbane would rise from three to thirty by 2070, which is well within the lifetime of existing homes and other built form. Many cities across the world are going through energy shortages as temperature soars with homes built for mild climates unable to cope even with insulation.

Although acknowledging that there is opposition from the fossil fuel lobby and some skepticism in the scientific community about anthropogenic climate change impacts (See Lomborg 2001) and that scientific opinion could turn out to be wrong, there is, neveretheless, a broad consensus in the scientific community that global warming and climate change is happening outside the predicted range of natural variability (See Singer

2002). If we reflect on Rittel and Webber's seminal work on 'wicked problems' a strong argument can be made to suggest that the risk of the doing nothing option far outweights the risk of taking preventative actions to mitigate possible effects on the urban form even if the impacts of climate change are not as significant as predicted[1]. In respect of risk, the insurance industry provides a reasonable guide to the probability and frequency of extreme events. In fact we speculate that the planning legislation may require climate change to be included in impact assessments for future development applications in areas of high climate change risk.

**Climate change and the Insurance Industry**

The Association of American Geographers (1997) published an article on the implications of climate change for the insurance industry predicting a significant increase in major windstorms worldwide and pointing to the growing importance of climate change to the industry particularly with respect to risk. Hence the industry is now beginning to treat climate change as a long-term strategic issue by focusing its actuarial muscle on climate change as a threat to its investments (ibid). Insurance executives speaking on behalf of almost 60 insurance companies addressed delegates of the climate change negotiations at Geneva in 1996 by calling for early and substantial reductions in greenhouse gases. Dlugolecki (1999) argues that at present few insurance companies are treating climate change as a strategic issue because of insufficient information about future weather patters, the lack of direction by politicians internationally on the issue and that most businesses are faced with more immediate priorities. He considers the initiative to form the Insurance Industry Initiative on Sustainable Development under the aegis of the UN Environmental Program (UNEP) is a way forward, although it is still poorly represented in the US and developing countries. This initiative saw executives present a position paper highlighting the industry's concern that while the effect of climate change on the frequency and severity of extreme weather events remains unknown, it is clear that even small shifts in regional climate zones or storm patterns could lead to increased property damage. The insurers point out that climate change could potentially have large implications for investment activities as societies anticipate and adapt to a new climate regime. A significant issue raised here is risk assessment as insurers "…know from experience how expensive it can be when people fail to protect themselves adequately from risks." (ibid: UNEP Executive Director Elizabeth

[1] Rittel gives the following example of 'doomsdaying'. 'Is the growing ozone hole, global warming or changes in weather patterns an indication that our atmosphere is undergoing dramatic, maybe incorrigible change at our hands? Or are these simply random fluctuations? Should we just sit back and watch or should we act now? Rittel's position is that we should act now because even if this turns out to be wrong, it is a far better option in the long run.

Dowdeswell). Some striking examples of heavy losses that can occur from storm damage are Typhoon Mireille, September 1991 and Hurrican Andrew, August 1993, which recorded losses of $5 Billion and $17 Billion respectively (ibid).

**Climate Change and Sustainable environments**

Sustainability is now firmly part of the lexicon of planning and is the best grounding for climate change research. Writing on sustainable communities, Blakely (2004) puts the case for innovative and forward thinking planning. He offers some planning principles to inform practice: viz—merging land use, social and governance planning into one framework for creating a new and innovative creative economy. Beatley and Manning (1997) and Beatley (1998) describe new patterns of settlement that might well overcome climate change issues. Newman's (2004) analysis of Vancouver, Canada is an example of how innovative transport and urban form policies have been enacted over the past decade which might serve as a benchmark for climate change work on cities. But even the most robust of these approaches is still less than adequate for the large scale transformations needed to deal with changes to the urban environment brought about by wild fires, extreme winds, hale storms, loss of sea coasts and rising oceans. This suggests radical changes to how cities and suburbs are planned, designed or re-designed.

In response to the problems of clear guiding principles and values that can steer cities to desired long-term social and economic outcomes, Godschalk **(**2003) puts forward a comprehensive urban hazard mitigation aimed at creating *resilient cities*. He argues that hazard mitigation policy, practice and knowledge fail to deal with the unique aspects of cities under stress, strongly emphasising, in a similar way to Blakely (op cit), that more expanded urban systems research, education and training with collaboration among professional groups involved in city building and hazard mitigation is urgently needed. A recent research proposal FINADPT (2005*)* explores the potential for dynamic interaction between the natural and socio-economic systems. This research will view natural and socio-economic systems as developing in a co-evolutionary way, rather than regarding them as independent of each other. For example, the biogeophysical effect of sea-level rise will be studied for its potential socio-economic impacts. Hence *impact potential* is considered as the socioeconomic equivalent of the natural system's susceptibility, although unlike susceptibility, it is dependent on human influences. The research hypothesizes that

*socio-economic vulnerability* is caused by the impact potential and society's technical, institutional, economic and cultural *ability to prevent or cope* with these impacts.

There is a large body of planning literature dealing with various aspects of the poor performance of modern urban settlement patterns (Layard, et al 2001; Kenny and Meadowcroft 1999; Ericksen et al 2004). In addition, scientific literature is emerging that focuses on the need to revalue nature and find better ways to live by integrating the long-term welfare of the Australian people and its plants and animals with climate and energy resource requirements (See Flannery 1994, Archer and Beale 2004). Writers such Calthorpe (1993) and Duany et al (2001) have focused attention on rethinking the planning of new suburbs to make them more environmentally sustainable. While some of these ideas have been incorporated into planning policies and strategic plans in many American and European cities including Australia, none of the strategies adequately considers the radical changes to urban design needed to account for severe climatic change.

**Climate change and urban design**

There are several studies on what constitutes an environmentally friendly urban form. But again there are none that have responded to the challenges presented by the possibility of extreme events. For example, considerable research work has focused on the differences between the temperature of vegetated urban parks and their surrounding built environment (Spronken-Smith and Oke 1998) and observations have been made about surface and air temperature relationships. In Vancouver, British Columbia and Sacramento, California it has been found that during summer conditions of large surface 'park cool island' (PCI) are present by day and at night and that while Vancouver's parks are 1-2 C cooler, larger PCI were found to be possible in Sacramento where irrigated green space is 5-7 C cooler. Trees were also found to play an important role during the day in establishing a cool park effect, perhaps through a combination of shade and evaporative cooling. At night the surface geometry and moisture status of parks were considered to be important controls on surface cooling. These findings are in Arnfield's (2003) review of progress in urban climatology over the last two decades on the conceptual advances made in microclimatology and boundary-layer climatology (See also Wenga et al 2004). This research indicates is it is possible to alter the role of scale, heterogeneity, dynamic source areas for turbulent fluxes and the 'heat island' complexity introduced by the roughness sub-layer over the tall, rigid roughness parts of cities. The Australian Government in 1995 published *AMCORD 95: A*

*National Resource Document for Residential Development* to induce the states to implement urban design guidelines. But they are really little more than a set conceptual ideas.

A different approach to engineered works identified in the literature is that of Mileti (1999) and Brown (2001). They suggest incorporating sustainable technologies in the design of communities to make them more self-reliant and independent from outside infrastructure and servicing in times of natural disasters. The U.S. Senate Subcommittee on Natural Disaster Reduction has explored the link between natural hazards and climate change as a part of its mission citing the fragmented approach to natural hazard mitigation and disaster management (Geis 2000). In sum, the works of Mileti (1999), Britton, Burby et al (2000), Cutter, Tierney, and Beatly (1998) acknowledge the connections that must exist between the built environment and the disastrous effects of natural disasters. However their ideas do not get close to developing a normative theory of planning and urban design specifically directed at those effects (See Mitchell 2003).

There is a considerable literature dealing with general concept and ideas about how to create environmentally sustainable environments, but little recognizes the enormity of the coming problems. The literature on the connection between climate change, the threat of natural hazards for human settlements resulting from climate change, and urban design is rather scant.[2] Although several scholars (Burby et al 2000; 1999; 1998; Beatly and Berke 1997; Beatly 1998, Geis 2000; 1998; 1987; 1994ab; Sanderson 2000) have raised concerns about the need for serious examinations of climate change integrated with the planning and urban design process, the only work in urban planning that directly addresses the design of cities in relation to climate change disasters is that of Donald Geis (2000). Geis' work consists of a general urban design, planning, and local government guidelines to design such communities, although more detailed and graphic urban design guidelines that may serve as blueprints for designing disaster resistant communities are still missing in his published work. His Disaster Resilient Communities (DRCs) are a set of generic guidelines which are not specific to actual geographic locations or climatic conditions. Natural disasters seldom respect general urban design prescriptions. This requires specific geographical location initiatives based on the anticipated hazards (i.e. whether the

[2] This literature review does not concern climate change, or natural hazards, and the design of individual buildings. In contrast with the literature on climate change and urban design, the literature related to he design of buildings is very abundant, specially in the field of structural engineering.

community is coastal area, a flood plain, etc.) and scale (i.e. whether it is a large city or a small community).

**Urban location and natural disasters**

Antecedents of the literature that relates urban location to natural disasters can be traced back to **the** geographer Gilbert White (1936) in an article published in *Planners Journal* (the predecessor of the *Journal of the American Planning Association*) and to Hewitt (1997) in his *Regions at Risk: a Geographic Introduction to Disasters*. Although natural disasters indicate the connections among land use, urban form, urban design, public infrastructure and the community's vulnerability to the impacts of extreme natural events, more is known about building codes and methods of making buildings safe than about the these connections (Ceniceros 1997). Geis suggests that while there is great concern about the safety of buildings, it is not possible at this stage to have a safe building "if you don't have a safe community to put it in" (Geis 2000: 3). We would add that the 'safe community' must also include a safe social and economic environment.

The International Decade for Natural Disaster Reduction, established by the UN for the 1990-2000 decade raised global concerns about disaster-safe communities and produced a series of studies to address this issue. According to Boulle et al (1997), most of these papers dealt only with the effects of natural disasters with little on climate change mitigations and management. Burby, Beatly and others (Burby et al 1999) stress the connection between federal land use regulations and policies and the losses caused by natural hazards. Their work emphasised how land use planning can be a powerful tool to revalue the way cities are designed to avoid the risks of natural disasters in developed areas. Other related works that identified the relationship between land use planning and natural hazards are the American Red Cross' *Disaster Resistant Neighbourhoods* (2000) and Bahrainy's 'Urban Planning and Design in a Seismic-prone Regions' (Bahrainy 1998).

A strong advocate of disaster resistance communities in the U.S. has been the Federal Emergency Management Agency (FEMA) and its Project Impact Program in 1996-97. FEMA-sponsored studies that advocate and recommend land use planning adequate to mitigate the effects of natural disasters by constructing area-wide protective works such as hazard-control structures (e.g. flood-control and hurricane-protection levees and

flood-control reservoirs) channel alterations, tide gates, pumps, among other engineered measures and building away from floodplains, from seismically active areas, and from wetlands and hillsides (Burby 1998; Geis 2000; Godschalk 1999; Britton 1998; Olshansky). FEMA also advocates so-called "safe development" practices through modification of building and site design. A major shortcoming of the FEMA approach, however, is the assumption that one federally-defined safety plan will fit all localities. Sociologist Dennis Mileti (1999), for example, rightly points out in *Disasters by Design, the Second Assessment of Natural Hazards in the United States,* that one overarching guidance to inform development in hazard prone areas is still missing from FEMA, i.e.: "Instead, a patchwork of innumerable federal, state and local regulations creates a confusing picture and often mitigates short-term losses while allowing the potential for catastrophic losses to grow" (Mileti 1999: 7).

A publication that addresses the relationship of natural disasters in urban planning is Beatly and Berke's *After the Hurricane: Linking Recovery to Sustainable Development in the Caribbean* (1997). This study draws on three years of field research that examined the effects of hurricanes in the Caribbean in 1988 and 1989. Berke and Beatley lay the basis for sustainable development and growth in the areas affected by the hurricanes. When focusing on post-disaster recovery, the authors explore the opportunities offered by the recovery period for strengthening local institutions to provide for long-term social, economic and physical development. Nonetheless, like similar studies, their research does not cover specific guidelines for comprehensive disaster resistant development. The importance of Geis (2000; 1998; 1994a; 1994b; 1987), who coined the term 'Disaster Resistant Communities' (DRCs), is that he provides the only structure for understanding how climate change responses might be conceptually modelled. Geis points out that "While traditional emergency management programs and planning, viz—mitigation, preparedness, response and recovery—are essential, the only real way to reduce the growing human and property losses from earthquakes, hurricanes and severe flooding is rooted "… in how we design and build our communities in the first place in these hazard prone areas" (Geis 2000, 3). The DRC concept is explicitly created to provide a vision of an "overarching guidance that informs development in hazard prone areas" (ibid).

The DRC concept was introduced in a symposium in 1994[3] and evolved from a perceived need for a more integrated approach to address natural hazard disasters, human and property losses, and associated socioeconomic disruption costs resulting from extreme natural events such as earthquakes, hurricanes and severe flooding (Geis 1994a). A major concern to arise from the symposium was the recognition that the design of the affected community was essential for an approach that would include mitigation policies. Another major influence in the design of the DRCs was a study sponsored by the National Science Foundation on the architectural and urban design lessons learned from the Mexico City earthquake of 1985 (Geis 2000; Geis et al. 1989; Geis and Arnold 1987). Geis advanced the DRC concept with the view to apply it to the U.S. and to other countries (Geis 1995; Geis 1996). In Geis' own words, a DRC

> represents the safest possible community that we have the knowledge to design and build in a natural hazard context. It is a means to assist communities minimize their vulnerability to natural hazards by maximizing the application of the principles and techniques of mitigation to their development and/or redevelopment decision-making process. While theoretically possible, a Disaster Resistant Community is in reality a model and a process, an optimal set of goals to work toward, and a set of guidelines to get there. It is also a means for envisioning these goals and a practical framework for implementing them. … The DRC approach must obviously address the structural aspects of a community's buildings and infrastructure through effective building codes, and location considerations through general land use plans. These two aspects, however, represent only one dimension of the multi-dimensional sphere necessary for creating such communities. It also recognizes that numerous other non-structural and functional considerations of the overall community are just as important. The DRC approach is based on the premise that it is impossible to have a truly 'safe building' without also having a safe overall community and region in which to build and support it (Geis 2000, 3-4).

Geis proposes design principles to be implemented through urban planning regulations and mechanisms to include:

- The relationship between the built and natural environments.

[3] The term "Disaster Resistant Community" was first introduced at a Central United States Earthquake Consortium (CUSEC) Natural Hazards Research Symposium in 1994

- The configuration, hierarchy, location, and scale of transportation systems and other public infrastructure.
- The design and patterns of open space.
- Housing, neighborhood, and community buildings design.
- The design and location of community felicities such as hospitals, fire and police stations, and certain administrative offices (Geis 2000)[4].

The notion of New Urbanism and DRCs has been linked in a master's thesis (Mitchell 2003) which tries to produce a blueprint for cities threatened by the devastating effects of natural hazards. Mitchell's study is based in the apparent natural relationship between Disaster Resistant Communities and "quality of life" or "sustainable communities." It starts from the assumption that all sustainable community proposals—such as Calthorpe's Transit Oriented Developments, Duany's Traditional Neighborhood Developments (Op cit) and Australian Liveable Neighbourhood Structure communities (Western Australian Planning Commission 2000)—are based on development patterns that address all DRC principles[5].

Mitchell claims that New Urbanism may embody the principles advocated by Geis because the street grid pattern in New Urbanist communities is the best for evacuating people in emergencies. The reason he gives is that the central locations of most public buildings and facilities in New Urbanism lend themselves easily to a government response to mitigate natural disasters with the preservation and location of open space serving as buffers and spaces for the gathering of people in post-disaster situations etc.

**A research agenda to design climate change responsive cities**

From the above review it is evident that a significance body of literature exists in urban planning about what constitutes an environmentally sustainable urban form. The literature,

[4] The DRC concept continued to change in 1994 through a series of presentations at various professional meetings in the U.S. The first comprehensive paper on DRCs was presented in Tel-Aviv in 1994 at the 1st International Congress of Local Authorities Confronting Disasters and Emergencies (LACDE) (Geis 1994b). This work stresses the role of local governments and further developes the connection between natural hazard mitigation, disaster resistant communities and sustainable development (Geis 2000).

[5] Mitchell tries to merge Geis' design guidelines with the urban planning and design precepts of New Urbanism to suggest what he calls Disaster Resistant New Urbanism. Mitchell's work seems to arise out of the coincidences between paradigms, his study remains rather superficial and schematic.

however, is not adequately informed by scientific knowledge about likely climate change scenarios. Thus research is needed to bring current knowledge about temperature rises and 'heat island effects', air pollution, sea level rise, storms, flooding and wild fires to bear on the design DRCs that are much better able withstand extreme events. A critical issue, therefore, is to collate the various strands of scientific knowledge so as its implications can be modeled and understood in the urban context, which will then allow new scenarios for planning the urban form to proceed on a solid knowledge base rather than the well intentioned but often misleading 'feel good' policies and statements about sustainable urban forms that abound in statutory planning policies and instruments. This is important for many on coastal cities that are highly vulnerable to the climate change predictions. Recent climate events could be considered as early warnings of what is to come and stay for hundreds of years. Hence there is an urgent need to inform planning practice with current scientific information to develop better methods and procedures for designing the urban form.

Most works that point to the problems of interconnecting land use, urban development, and government policies to withstand the negative effects of natural hazards fall short in prescribing specific and robust planning policies and urban design guidelines that can face the impacts of climate change-induced natural disasters. In response to the above gaps in the literature, we suggest that research on the relationship between climate-change induced natural hazards and the design of cities must respond to the scale of the development under study, its geographical location, and to an assessment of new natural hazards threatening the settlement with climate changes.

**Type of Urban Research Needs**

| | Residential | Commercial | Institutional | Open Space |
|---|---|---|---|---|
| Flood | Land use and tidal basin research | Building size, and building foot prints where surfaces add to flood damage via run off | Risk assessments of prolonged floods and droughts on ground cracking or softening. Impacts on animal life of floods | Better design to carry water—examination of old stream beds and movement channels that may re-emerge in flood periods and across open space causing more damage Retarding basins for flood mitigation |
| Rising sea level | Coastal community, beach erosion and tidal change scenarios | Building locations near water, with piling and footings as well as underground facilities such as car parks | Examining coastal building regulations, moving residential areas away form high risk locations | Coastal and beach areas Studies of flora and fauna as sea level rises Studies into unstable dune systems |
| Heat Waves | Impact of continuous heat on energy systems; building materials, house orientations to the sun, roofing materials and construction | Building energy use, roof materials and elevator systems as well as evacuation | Long term city government plans to replace roofing material and invest in energy wise materials and regulatory practices | Cooling sink research on open areas-looking at type of tree and performance of open areas-like ball fields in heat periods |
| Wind and Rain Storms | Building design, street trees and other materials in residential areas as protectors or dangers | Building foot prints and wind tunnel effects | City wind research units to measure impacts of winds and storms on city | Open areas as wind carriers—open area wind tunnels or wind shields |

Specific designs solutions tied to particular types of extreme event occurrences to withstand the negative effects of climate change may also prove cost-ineffective for most cities. Each city region must be evaluated for its potential risks to prescribe corresponding urban design guidelines as the above figure shows. Climate change

research will need to be targeted in relation to the particular type of climatic events and to local geographic areas where they may strike. Obviously, many large cities in the developing world are at great risk. Most of these cities have poor infrastructure for urban living and will be disastrously impacted by major climate changes. The World Bank and other agencies must take stock in this situation because the implications of the Asia-Pacific Tsunami in 2005 show how devastating such events can be. Although most cities have some form of disaster mitigation structures or area-wide protective works such as flood-control reservoirs, flood retention basins, hurricane-protection levees, and the like, these precautions do not consider the unexpected and new potential hazards that the current trends in climate change may bring about to the same city. Therefore an agenda for research must include not only the contingency of hazards occurring in cities, but also the devastating impacts on nearby cities with economic and social linkages.

**References**


Adger W.N, Brown, K. Fairbrass, J. Jordan, J.A , Paavola, J. Rosendo, S. Seyfang G. (2003) 'Governance for sustainability: towards a 'thick' analysis of environmental decisionmaking' *Environment and Planning A*, volume 35, (6) June, pages 1095 – 1110.

Aguirre, Benigno E. (2002) 'Can Sustainable Development Sustain Us?', *International Journal of Mass Emergencies and Disasters*, 20, 2, Apr, 111-125.

Allen, P. A. and Hoffman P. F., (January 2005) 'Extreme winds and waves in the aftermath of a Neoproterozoic glaciation' *Nature* 433: 123 - 127 (13).

Australian Government (1995) *AMCORD 95: A National Resource Document for Residential Development*, Australian Government Publishing Service: Canberra.

American Red Cross. 2000, *Disaster Resistant Neighbourhoods*, Capital Area Chapter of the American Red Cross.

Andrews C. J. (Feb. 2000) 'Analyzing Quality-of-Place', Working Paper, Department of Urban Planning and Policy Development, Rutgers, The State University of New Jersey: New Brunswick, NJ 08901 USA.

Archer M. and Beale B. (2004) *Going Nature: Living in the Australian Environment*, Hodder Headline Australia Pty. Limited: Sydney.

Arnfield A. J. (2003) 'Review: Two Decades Of Urban Climate Research: A Review Of Turbulence, Exchanges Of Energy And Water, And The Urban Heat Island'

*International Journal of Climatology, Vol* 23: 1–26. Published Online in Wiley Interscience (www.interscience.wiley.com).

Association of American Geographers (1997) 'The Insurance Industry and Global Climate Change: Various positions of insurance companies on the issue of climate change' *Global Change and Environmental Hazard*.

Atkinson A. (May , 2001) 'International cooperation in pursuit of sustainable cities' in *Development in Practice*, Volume 11, Numbers 2-3: 273 – 291, Carfax Publishing Company. Beatley T. (2000) *Green urbanism : learning from European cities*, Washington, DC: Island Press.

Australia. Dept. of Housing and Regional Development. (1995) *AMCORD : A National Resource Document for Residential Development*, Commonwealth Department of Housing and Regional Development Canberra, A.C.T. : Dept. of Housing and Regional Development.

Bahrainy. 1998. The case of Rasht in Northern Iran. Journal of urban Planning and Development, 124, 148-182.

Battle, Guy. 2000. Kyoto or bust: climate change. World architecture (Oct.), n.100, p.64-67.

Beatley T. and Manning K. (1997) *The ecology of place: planning for environment, economy and community* Washington, DC : Island Press.

Beatley, T. (1998) 'The vision of sustainable communities' in Burby, ed., *Cooperating with nature: Confronting natural hazards with land-use planning for sustainable communities,* R. J. Joseph Henry Press: Washington, D.C.: 233–262.

Beatley, T. (1998). The Vision of Sustainable Communities, in Burby Cooperating with Nature …

Beatly T. and Berke P.R. 1997. *After the Hurricane: Linking Recovery to Sustainable Development in the Caribbean*, The John Hopkins University Press.

Beatly, T., Deyle R. E., French, S. P., Olshansky, R. B., & Paterson, R. G. (1998). Hazard assessment: The factual basis for planning and mitigation. In R. Burby (Ed.), Cooperating with nature: Confronting natural hazards with land use planning for sustainable communities (pp. 119-166). Washington, DC: Joseph Henry/National Academy Press.

Berke P. R. and Beatley T. (1997) *After the hurricane : linking recovery to sustainable development in the Caribbean*, Baltimore : Johns Hopkins University Press.

Berke, P. R. (Aug 2002) 'Does Sustainable Development Offer a New Direction for Planning? Challenges for the Twenty-First Century', *Journal of Planning Literature, Vol. 17, No. 1*. 21-36: SAGE Publications.

Blakely, Edward J. "Suburban Bias" *Planning Magazine* Viewpoint, March 2, 2003.

Blakely, Edward J. "Sustainable Infill" *Urban Land*, May 2003 pp 60-69 with Douglas Porter and Alexander Kalamaros.

Blakely, Edward J. "Suburbs as Sustainable Communities: A Paradigm for the Future" *Australian Planner* vol 40. No.4 January, 2004.

Boulle, Philippe; Vrolijks, Luc; Palm, Elina. (1997) 'Vulnerability Reduction for Sustainable Urban Development', *Journal of Contingencies and Crisis Management*, 5, 3, Sept, 179-188.

Brown, Valerie A.V.U.I. (2001) 'Planners and the Planet: Reforming the People/Planet relationship: Do planners have a Role' *Australian Planner: Journal of the Royal Australian Planning Institute* V. 38, n. 2, pp. 67-73.

Burby, R. J. (1998) 'Natural Hazards and Land Use: An Introduction' in Burby, *Cooperating with Nature…*

Burby, R. J. (1999) 'Unleashing the Power of Planning to Create Disaster-Resistant Communities' *Journal of the American Planning Association*, 65, 247-258.

Burby, R. J. (ed.). (1998) *Cooperating with Nature: Confronting Natural Hazards with land-Use Planning for Sustainable Communities*, Washington, DC: Island Press.

Burby, R.J. (2001). 'Urban Containment Policy and Exposure to Natural Hazards: IS there a Connection?'. *Journal of environment Planning and Management*, 44, 475-490.

Burby, R.J., Deyle, R.E., Godschalk, D.R. and Olashansky, R.B. (2000). 'Creating Hazard Resilient Communities Through Land-Use Planning', *Natural Hazards Review*, 1, 99-107.

Burby, Raymond, Timothy Beatley, Philip R. Berke, Robert E. Deyle, Steven P. French, David R. Godschalk, Edward J. Kaiser, Jack D. Kartez, Peter J. May, Robert Olshansky, Robert G. Paterson, Rutherford H. Platt (Summer1999), 'Unleashing the power of planning to create disaster-resistant communities', *Journal of the American Planning Association*, v65 i3 p247(1).

Calthorpe P. (1993) *The Next American Metropolis: Ecology, Community, and the American Dream*, Princeton Architectural Press: Princeton USA.

Calthorpe, P. and William Fultin. (2001) *The Regional City: Planning for the End of Sprawl*, Washington, D.C.: Island Press.

Campbell S. (Summer 1996) 'Green Cities, Growing Cities, Just Cities? Urban Planning and the Contradictions of Sustainable Development',*Journal of the American Planning Association.*

Carter, T. & Kankaapää, S. (2003) 'A preliminary examination of adaptation to climate change in Finland', Suomen ympäristö 640, Suomen ympäristökeskus, Edita Prima, Helsinki.

Ceniceros, Roberto, (May 1997) 'Institute Creates incentives for Disaster Planning', *Business Insurance*, 31, 1-2.

Commonwealth Scientific Industrial Research Organisation (CSIRO) (2003) 'Climate change projections for Australia' ( http://www.dar.csiro.au/publications ).

Congress of New Urbanism (1998) 'Charter f the New Urbanism', San Francisco: Congress of the New Urbanism.

Cox, P. M., Betts, R. A. Jones, C. D., Spall S. A. and Totterdell I. J. (Nov. 2000) 'Acceleration of global warming due to carbon-cycle feedbacks in a coupled climate model' *Nature* 408, 184 – 187.

Crowley (T.J. (July 2000) 'Causes of Climate Change Over the Past 1000 Years' *Science*, Vol 289, Issue 5477, 270-277.

CUSEC (1997) 'Disaster Resistant Communities: Final Report on Evansville-Henderson Workshop: To Develop a Model Disaster Resistant Community Program' in Evansville, Indiana: Central Unites States Earthquake Consortium.

CUSEC (1998), "Rejuvenating the Earthquake Program Through Project Impact." The Central United States Earthquake Consortium (CUSEC) Journal (Vol. 5, No 3, winter 98.

Cutter, Susan L. (1996) 'Vulnerability to environmental hazards. Progress' in *Human Geography* 20:4, s. 529-539.

Cutter, Susan L., Boruff, Bryan J. & Shirley, W. Lynn (2003) 'Social Vulnerability to Environmental Hazards', *Social Science*, Q 84: 2, s. 242-261.

Deakin M. (2002) 'Modelling the Development of sustainable communities in Edinburgh's South East Wedge', *Planning Practice and Research*, Vol 17, No3: 331-336: Routledge.

Deakin M., Huovila ,P. Rao S., Sunikka M. and Vreeker R. (March, 2002) 'The assessment of sustainable urban development' *Building Research & Information* Volume 30, Number 2, pp. 95 – 108: Routledge.

Dieleman F. M., Dijst M. and Burghouwt G. (March 2002) 'Urban Form and Travel Behaviour: Micro-level Household Attributes and Residential Context' *Urban Studies*, Volume 39, pp., 507 – 527: Number 3: Carfax Publishing Company.

Dlugolecki A. F., (Edited) (1999) 'Climate Change and the Insurance Industry: The Changing Risk Landscape: Implications for Insurance Risk Management', Proceedings of a Conference sponsored by Aon Group Australia Limited.

Dorozynski A. (August 2003) 'Heat wave triggers political conflict as French death rates rise' *BMJ* : (23 ) 327:411.

Duany A. Plater-Zyberk E. and Speck J. (2001) *Suburban nation: the rise of sprawl and the decline of the American dream*, New York : North Point Press.

Ericksen N.J., Berke P.R., Crawford J.L., and Dixon J.E. (2004) *Plan-making for Sustainability: The New Zealand Experience*, Ashgate Publishing Limited: Aldershot, England.

FDCA, Florida Department of Community Affairs (2001) *Handbook for Hazard Mitigation Projects*, Tallahassee, Florida: Bureau of Recovery and Mitigation.

FEMA. (1995) *National hazard mitigation Strategy: Partnerships fr Building Safer Communities*, Washignton, DC: Federal Emergency management Agency.

Fisher F. (Sept. 2002) 'Widening the Definition of Environment for Responsible Urban Commuters', *Urban Policy and Research*, Volume 20, Number 3: 309 – 312: Carfax Publishing Company.

Flannery, T. F. (1994) The Future Eaters: An Ecological History of the Australasian Lands and People, Chatswood, N.S.W.: Reed Books**.**

Geis, D. E. (1994b), 'Planning Disaster Resistant Communities: Lessons for Local Authorities.' In Proceedings: Local Authorities Confronting Disasters and Emergencies International Conference, Tel Aviv, Israel: International Union of Local Authorities.

Geis, Donald E. 1994a, 'Envisioning a Disaster Resistant Community.' Presented as a working paper, at the Central United States Earthquake Consortium (CUSEC) Natural Hazards Research Symposium, 'Translating Research into Practice.' Louisville Kentucky, May 31, 1994.

Geis, Donald E. (ed.) (1988), *'Architectural and Urban Design Lessons From the 1985 Mexico City Earthquake*.' Funded by the National Science Foundation. Washington, D.C.: AIA, ACSA Council on Architectural Research.

Geis, Donald E. and Arnold, C. (1987), 'Mexico City as Seismic Laboratory: A Multinational Team Draws Lessons From the 1985 Tragedy.' Architecture. (July) Vol. 76, No. 7,.

Geis, Donald, (2000) 'By Design: The Disaster Resistant and Quality of Life Community', *Natural Hazards Review*, vol. 1, 151-161.

Godschalk D. R. (August 2003) 'Urban Hazard Mitigation: Creating Resilient Cities', *Natural Hazards Review*, Volume 4, Issue 3: 136-143.

Godschalk, D. R., Brower, D. J. and Beatley, T. (1989) *Catastrophic coastal storms: hazard mitigation and development management*, Durham: Duke University Press.

Godschalk, D. R., Kaiser, E. J., & Berke, P. R. (1998) 'Integrating hazard mitigation and local land use planning' in Raymond Burby (Ed.), *Cooperating with nature: Confronting natural hazards with land use planning for sustainable communities* (pp. 85-118), Washington, DC: Joseph Henry/National Academy Press.

Godschalk, T. Beatly, D.R, , Philp Berke, David Brower, Edward Kaiser, Charles Bohl et al. (1999) *Natural Hazard Mitigation: Recasting Disaster Policy and Planning*, Washington, DC: Island Press.

Gregory J.M., Huybrecht P. &. Raper' S. C., (April 2004) 'Climatology: Threatened loss of the Greenland ice-sheet', *Nature*.; Vol 428(6983):616 (Also see Centre for Global Atmospheric Modelling, Department of Meteorology, University of Reading, Reading RG6 6BB, UK, Hadley Centre for Climate Prediction and Research, Met Office, Exeter EX1 3PB, UK Department of Geography, Vrije Universiteit Brussel, 1050 Brussels, Belgium, Alfred-Wegener-Institute for Polar- und Meeresforschung, 27515 Bremerhaven, Germany).

Haines A. and J. A. Patz J.A. (Jan. 2004) 'Health Effects of Climate Change' *JAMA*; Vol. 291(1): 99 - 103.

Hemispheric Congress on Disaster Reduction and Sustainable *Development*. (1997), Miami Declaration on Disaster Reduction and Sustainable Development, Miami: International Hurricane Center, Florida International University.

Hewitt (1997) *Regions at Risk: a Geographic Introduction to Disasters*

Hill, Kristina, (2003) 'Green good, better, and best: effective ecological design in cities', **Harvard Design Magazine,** Spring-Winter, n.18, 37-40.

Hughes L. (2003) 'Climate change and Australia: trends, projections and impacts' *Austral Ecology*, Vol. 28: 423–443.

Impact of climate change on urban planning, transport and pollution in Australia (1992), Department of the Arts, Sport, the Environment and Territories. Canberra: Australian Govt. Pub. Service.

Ingersoll, Richard (2003) 'A post-apocalyptic view of ecology and design: thirteen recent books', *Harvard Design Magazine,* Spring-Winter, n.18, p.12-17.

IPCC (2001) 'Climate Change 2001: Impacts, Adaptation, and Vulnerability' Contribution of Working Group II to the Third Assessment Report of the Intergovernmental Panel on Climate Change, Cambridge University Press: Cambridge and New York.

Johns, T. C. Gregory, J. M. Ingram, W. J. Johnson, C. E. Jones, A. Lowe, J. A. Mitchell, D. L. J. F. B. Roberts, D. M. H. Sexton, D. S. Stevenson, S. F. B. Tett, M. J. Woodage (April 2003) 'Anthropogenic climate change for 1860 to 2100 simulated with the HadCM3 model under updated emissions Scenarios' *Climate Dynamics,* Volume 20, Number 6, pp: 583 – 612: Springer-Verlag.

Kalkstein L.S., and Greene J.S. (Jan 1997) 'An evaluation of climate/mortality relationships in large U.S. cities and the possible impacts of a climate change' *Environ Health Perspect* Vol 105 (1): 84.

Karl T. R. and Trenberth K. E.(Dec. 2003) 'Modern Global Climate Change', *Science*, Vol. 302, Issue 5651, 1719-1723.

Kenny, M. and Meadowcroft J. Eds. (1999) *Planning Sustainability*, Routledge: London, New York. Khamsi, R. *(2003)* 'Human activity implicated in Europe's heat wave', *(www.nature.com/news/2004/041129).*

Layard A., Davoudi S., Batty S., (Eds.) (2001) *Planning for a Sustainable Future*, Spon Press: New Fetter Lane, London. Miles, R. and Roger Stone *Sustaining Regions with a Changing Climate paperInstitute for Sustainable Regional Development,* Central Queensland University. Newman P. (2004) 'Sustainability and Global Cities' *Australian Planner*, Vol. 41, No 4: 27. News Target (Feb 2005) 'Global warming may be worse than previously estimated', (http://www.newstarget.com/003977.html ).

Lomborg B. (2001) *The Skeptical Environmentalist,* Cambridge: Cambridge University Press.

Menoni, S. 1996, 'An Attempt to Link Risk Assessment with Land use Planning: A recent Experience in Italy', *Disaster Prevention and Management*, 6, 6-21.

Metz B. (2001) *Climate Change 2001: Mitigation: Contribution of Working Group III to the Third Annual Assessment Report of the Intergovernmental Panel on Climate Change*, Cambridge, New York: Cambridge University Press.

Mileti, Dennis S. (1999) *Disasters by Design: A Reassessment of Natural Hazards in the United States*, Washington, D. C.: Joseph Henry Press.

Mitchell, Gregory D (2003) *Disaster-resistant New Urbanist communities: The merging of New Urbanist and Disaster-Resistant Community paradigms to create better communities,* Queen's University at Kingston (Canada) (Master's Thesis unpublished)

Nicholls, R. (1998) 'Coastal Vulnerability Assessment for Sea-Level Rise: Evaluation and Selection of Methodologies for Implementation', Technical Report (TR 98002), Component 6: Coastal Vulnerability and Risk Assessment, Publication of the Caribbean Planning for Adaptation to Global Climate Change (CPACC) Project.

Olshansky, R. B. and Jack Kartez. 1998. Managing Land Use to build Resilience. In Burby. Cooperating with Nature.

Pearman, Graeme I. (1987) 'Climatic change and Coastal Planning' *Australian Planner,* Journal of the Royal Australian Planning Institute *(June), v.25, no.2, p.23-28*

Peatling S. *SMH*, February 17, 2005, http://www.smh.com.au/text/articles/2005/02/16/1108500156846.html?oneclick=true.

Rignot, E. and Thomas, R. H. (August 2002) 'Mass Balance of Polar Ice Sheets', *Science*, Vol. 289, Issue 5586: 1502-1506. Satterthwaite D. (1997) 'Sustainable Cities or Cities that Contribute to Sustainable Development?' *Urban Studies* Volume 34, Number 10 / October 1; 1667 – 1692: Carfax Publishing Company, Taylor & Francis Group.

Rittel H. and Webber M.M. (1973) 'Dilemmas in a General Theory of Planning', *Policy Sciences*, pp. 155-69.

Sairinen R. & Peltonen L. (Circa 2005, paper undated) 'Adaptation Strategies for Climate Change in the Urban Environment' in *FINADAPT/Appendix 13 WP 13: Urban planning*, Centre for Urban and Regional Studies, Helsinki University of Technology.

Sanderson, David, (2000) 'Cities, Disasters and Livelihoods' *Environment & Urbanization*, 12, 2, Oct, 93-102.

Saunders, William S. (2003) 'Building nature's ruin?: realities, illusions, and efficacy of nature-sustaining design' *Harvard Design Magazine,* Spring-Winter, n.18, p.[2-3],

Spronken-Smith R.A. and T. R. Oke T.R. (1998) 'The thermal regime of urban parks in two cities with different summer climates' *International Journal of Remote Sensing*, Volume 19, Number 11 / July 20, 19982085 – 2104: Taylor & Francis.

Stainforth, D. A. et al (January 2005) 'Uncertainty in Predictions of the Climate Response to Rising Levels of Greenhouse Gases', *Nature* Vol. 433: 403 – 406.

Stone B. (C.2002) 'Residential Land Use And The Urban Heat Island Effect: How The American Dream Is Changing Regional Climate', Department of Urban and Regional Planning, University of Wisconsin-Madison. (Also See Urban Heat Island Summit, Agenda and Presentations, Metro Hall Council Chambers, Street, John Toronto, Ontario: http://www.cleanairpartnership.org/agenda.htm)

Sustainable Communities in Edinburgh's South East Wedge' in *Planning Practice & Research*, Vol. 17, No.3: pp. 331–336. Vol. 289, Issue 5477, 270-277.

United Nations International Strategy for Disaster Reduction (2003) 'Natural Disasters and Sustainable Development: understanding the Links Between Development, Environment and Natural Disasters'.

Wenga, O., Lub, D., Schubringa J. (2004) 'Estimation of land surface temperature–vegetation abundance relationship for urban heat island studies' *Remote Sensing of Environment* Vol 89: 467–483 ( www.elsevier.com/locate/rse).

Western Australia Ministry of Planning (2000) 'Pedshed Mapping', Perth, Australia, Western Australia Planning Commission.

Western Australia Ministry of Planning (2000) *Introducing Liveable Neighbourhoods*, Perth, Australia, Western Australia Planning Commission.

Willows, Robert & Connell, Richenda (Eds.) (2003): 'Climate adaptation: Risk, uncertainty and decision-making', UK Climate Impacts Programme, Technical Report. UKCIP, Oxford.

Zolkos, Rodd, (1998) 'FEMA touts loss mitigation efforts.' *Business Insurance*, Oct 12, v32 n41 p16(1).

# Multiple Objectives in Planning School Performance Measurement: Can the Diversity of Planners' Scholarship be Usefully Assessed at the National Level?

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*Abstract:*
Urban Planning School Performance Measurement can be useful to realistic self assessment by faculties, to assist schools in internal university competitions for resources, and to improvements in visibility of the profession. Yet, historically, U.S. planning schools have resisted efforts to compile and release school performance data. This analysis relays the history of unit performance measurement internationally and in the U.S. and describes efforts currently underway to develop a U.S. national system for collection and dissemination of comparative data on planning school performance.

Various national systems collect and openly report data on university programme performance in the U.S., but none of these include programmes in urban planning. These relatively decentralized efforts stand in contrast to the government-run university performance measurement systems in place or proposed in other English-speaking nations. Notable also is the distinction between performance measurement systems that conduct *de novo* assessments of quality and those that rely on measurements resulting from independent decision contexts. A current ACSP initiative proposes a Planning School Performance Measurement system that could capture the breadth of what planning schools do. The paper discusses principles for conduct of such a study and evaluates candidate measures in each of the broad areas of school activity: social science modelled research, design, outreach, teaching and reputation.

**Multiple Objectives in Planning School Performance Measurement: Can the Diversity of Planners' Scholarship be Usefully Assessed at The National Level?**

The past fifteen years have seen increased attention to university programme performance measurement in the interests of promoting quality in research and teaching, as well as cost efficiency. In some countries, including the UK, urban planning programmes have been directly affected by decisions resulting from these measurement systems; in others, including the US, planning programmes have been affected indirectly in terms of visibility and competition for resources. This paper reviews the development of university unit performance measurement internationally, examines the US record, and suggests a new US approach intended to benefit the development of planning education.

University performance measurement in general, and urban planning school performance measurement in particular, prompt wide disagreement. Institutions are quick to claim status positions from the results of performance studies. Perusal of university promotional materials quickly shows prominence given to the results of any ranking scheme that might be plausibly interpreted as showing the institution in question in a favourable light. Yet, by their nature, performance measurement programmes must focus on limited yardsticks, leading Thomas (2005, 241) to suggest that the British assessment exercise "poses great dangers of narrowing and distorting the purpose and scope of university life." When the ranking schemes in question are based on controversial performance measures, or where the performance measures used are not revealed fully, criticisms can be widespread and heated.

Central to the criticisms is the mismatch between the tendency to base unit performance assessments on a narrow list of measures, and the diversity of objectives served by urban planning education and scholarship. There are fears that while any performance measurement scheme must practically focus on a limited number of indicators, effectively assessing the quality of teaching and research at planning programs requires a very large number of variables, many of which are hard to measure. At the same time, there is recognition that university administrations and national governments are increasingly demanding unit performance measurements as the basis of resource allocation decisions, and that student and faculty recruitment is,

in part, a function of the publicity generated by unit performance measurement. There is also the expectation that good national comparative data will facilitate better internal policy decisions by faculties.

## The Introduction and Use of University Unit Performance Measurement in Industrial Countries

The United Kingdom initiated a national program of unit performance measurement in the mid-1980s. This program is divided into two parallel activities: the Research Assessment Exercise (RAE) and the Teaching Quality Assessments (TQA), the latter of which is now a matter of individual university responsibility. Of central importance is that the RAE leads directly to re-allocations of funding to university programmes by the national government.

The system undergoes revision in each 5-7 year cycle. In the most recent RAE cycle in 2001, units were graded on a 6-point scale (1-5, and 5*) based on papers published, grants awarded, number of staff ("faculty" in U.S. usage) and of research students, the unit's research strategy, and measures of esteem including prizes, research roles, and advisory posts. (Jamrozik, Weller and Heller 2004; Punter 2001). Most important among the measures is the proportion of papers written by staff whose work is judged to be of "international or national quality" by a disciplinary peer panel who read up to four papers by each staff member at each school. Each school is allowed to "select", or prepare its own list of staff deemed "research active" to be included in the assessment, so there is some school discretion in the development of the faculty census. Larger staff is a positive in the ratings, but larger selection may lead to lower proportion of international or national quality papers.

The UK RAE is heavily dependent on direct peer review, leads to a single overall rating for each school, and directly affects unit funding. Proposals for changes to be implemented in 2008 call for greater reliance on independently-determined measures of performance, such as bibliometric measures, but the most important components of the ratings will still be based on direct peer review. The single overall scores assigned to each unit and the direct affect on funding will be retained. (Punter 2003).

In order to retain research funding, a unit must obtain a grade of at least 3a, and units earning 4 (virtually all work at national standard, with ten percent international), 5 (10-49 percent international) or 5* (majority of papers international) ratings enjoy increases in research funding, with some differences in proportional allocations as determined by national bodies in England, Scotland and Wales. Nationally in 2001, 80 percent of staff were in units earning ratings of 4 or higher. (Punter 2003).

In 2001, the Town and Country Planning peer panel included 13 people: 9 senior academics and four senior professionals. 28 British planning schools participated, submitting 1,440 pieces of research. The panel defined research quality as exhibiting, "substantive research content...quality of argument, and...contribution to the advance of theory and/or methodological development/policy development/good practice" (Punter 2003, 8-9).

Two schools (7%) earned grade "5*", 6 (21%) earned grade "5", 7 (25%) earned "4", 8 (29%) earned grade "3a", 3 (11%) earned grade "3b", 1 (4%) earned grade "2", and 1 (4%) earned grade "1" (Punter 2003, 29). So, 82 percent of the schools qualified for research funding, and 18 percent did not, but a subsequent decision by the English authorities led to reductions of funding for grade 3a and 4 schools. 11 of the planning schools improved their rating over the prior 1996 exercise. Planning had lower percentages of staff in the higher grade schools, 69 percent in schools with 4, 5 or 5* grades, compared with 80 percent across all fields nationally, and as a result, planning schools have suffered relative to those in other disciplines.

The RAE system is clearly intended to promote research accomplishment by concentrating university resources on those with the best research track records, and it has increased attention to research and publication in British universities. It has been the subject of considerable criticism, however, with the responsible national body concluding, "the amount of discrimination provided by the exercise is less than the length of the rating scale would suggest" (U.K. Higher Education Funding Councils 2003, 57). There is belief by some that faculty and schools now concentrate on grant getting and publishing to the detriment of teaching and professional relevance (Jamrozik, Weller and Heller 2004), and there is the fear that faculty cooperation and collegiality may have suffered (Thomas 2005).

The UK RAE has stimulated somewhat similar exercises in various countries including Australia, Canada, Belgium, Hong Kong, Ireland, New Zealand, the Netherlands, Poland, Slovakia, and Taiwan. Indeed, an OECD report characterizes evaluation of research as a "rapid growth industry" (Organization for Economic Cooperation and Development 1997). von Tunzelmann and Mbula (2003) find that Ireland and New Zealand are more oriented toward unit formulation of strategy, rather than summative evalation of prior proformance; that Taiwan is adopting the RAE model in order to promote publication by academics; that Belgium is adopting a system relying heavily on bibliometric measures; and that Poland, Slovakia, Hong Kong and Australia all use national research evaluations to distribute funding to institutions, while Ireland, France, Switzerland, Denmark, Japan and New Zealand rely more on self evaluation by units, within proscribed national structures and with oversight and concerns about "puffery". It appears that interest in intense models of national evaluation requiring direct review and assessment of scholarship by peer panels are limited to smaller countries and may be difficult to implement in larger ones (von Tunzelmann and Mbula 2003).

Netherlands undertook an RAE-like assessment of geography, planning, demography and cartography with results released in 2001. According to Voogd (2001), the exercise was intended to maintain and improve quality through feedback, rather than through funding reallocations, although it paralleled the UK system in producing a single measure of performance for each unit. Peer panellists in the Netherlands were required to read five research outputs per unit, selected by the unit director. There was some concern over selection of panellists exacerbated by the small size of the country, and as a result a high proportion of foreign panellists were appointed. The Dutch system was intended to base evaluations on the mission statements of individual research units, but according to Voogd (2001) there is little evidence that this took place. He is also critical of the direct peer review scheme, arguing that such reviews are not better than those of the best peer reviewed journals, only different.

New Zealand's Labour party promised greater accountability for research funding in 1999. The government's Performance-based Research Fund (PBRF) was designed to reward research excellence. Half of the nation's higher education institutions elected to participate in the initial round of Quality Evaluation (QE), some 22 institutions,

including 8 universities and 2 polytechnics. In all, 310 academic units were assessed. The QE process, modelled after the UK RAE, involved two phases: evidence portfolios prepared by staff and assessment by 12 peer review panels consisting of 165 leading researchers, 33 from abroad. Three principle sets of measures were used: number of research degree completions, external research income, and expert panel review of research quality. Results were complimentary of much about research in the nation, finding strengths broadly spread across many institutions. 5.7% of staff received the highest possible rating ("A"), while 39.9% were rated below the "C" level. Questions were raised about the extent of post-graduate education in institutions that did not perform well. In response to the study results, the government decided to increase research funding by NZ$33 million over the subsequent four years. (New Zealand, Tertiary Education Commission 2004).

Eight New Zealand universities participated in the review of units in the subject area of Architecture, Design, Planning and Surveying with 175 eligible staff and 114 staff reviewed. Across these units, 3.1 percent of staff were rated "A", 20.7 percent "B", 39.4 percent "C", and 36.8 percent below C (referred to as "R")(New Zealand, Tertiary Education Commission 2004, 110). Two of the schools earned overall ratings of 6 on the systems' 10-point scale; five earned ratings between 2.3 and 3.5; and three earned ratings of 1.0 or less (New Zealand, Tertiary Education Commissions 2004, 111). Individual staff ratings are not released to protect confidentiality, but unit ratings are published.

Australia has been basing university research funding on measures of performance since the early 1990s, and has recently decided to create a national research assessment system, but implementation has not yet begun (Butler et al. n.d.). The country's Department of Education, Science and Technology convened a conference in June 2004 intended to advance discussion of the form of the system. Sir Gareth Roberts, a key actor in the UK RAE, keynoted that conference attributing increases in research quality and funding in the UK to the RAE. Australia's Chief Scientist warned of strategies that demand too much detail, but expressed the hope that demonstrating the accomplishments of Australian researchers would lead to greater funding for research from government and industry (Batterham 2005). Braithwaite (2005) argued that assessment of the policy sciences must be based on peer reviewed

accomplishments, primarily publication in refereed journals, rather than attempting to gauge impact on policy, which is difficult to fairly assess.

Iain McCalmann (2005), president of the Australian Academy of the Humanities discusses measurement of excellence in the humanities and creative arts. He identifies four broad methods for measuring research excellence in such fields: peer review, self-assessment, historical ratings and quantitative measures (citation indices, research grant income, numbers of post-graduate students, esteem measures including keynote lecture invitations, editorial board memberships and memberships on panels of learned societies and government bodies).

Outside the U.S., governments of industrial nations are increasingly using university unit performance measurement to provide feedback on the quality of research and to inform resource allocation decisions. These measurement exercises are most often based on a very limited set of measures, frequently utilize new judgements of quality made by peer review panels assembled for the purpose, and lead to single measures of unit quality. Preliminary evidence suggests that urban planning schools have not fared particularly well under these programmes, likely as a function of their multi-objective and interdisciplinary nature, which is hard to capture in a system that produce single overall scores of performance, leading Balducci (2005) to call for richer measurement schemes to be developed by planning school associations.

Unit Performance Measurement in the U.S.

In 1995, the (U.S.) National Research Council published results of a wide-ranging study of research-doctorate programs in the United States (Goldberger, Maher and Flattau 1995). The most recent of a series of such studies, it has widely been used as the basis of rankings claims by departments and universities. The NRC study included only disciplines in which there were more than fifty doctoral programs nationally, and as a result Urban Planning was not included.

The 1995 NRC study was the latest of five studies of performance in university departments published by the American Council on Education and the National Academy of Sciences Press beginning with the Cartter Report in 1966, and tracing routes to earlier national assessments that go back to 1927 (Ostriker and Koh 2003; Webster 1988). 29 variables were analyzed pertaining to 3634 academic programs in

41 disciplines at 274 universities at a cost of over one million dollars (Hargens 1996, 730). In contrast to university performance measurement programmes in other countries, the U.S. system is operated by an association of scholarly societies, independent of the government.

The variables used by Goldberger, Maher and Flattau (1995) were in three groups: (1) Reputation; (2) Students; and (3) Faculty. The **Reputation** variables were based on a survey of graduate faculty conducted by the NRC. The **Student** variables concerned graduate student headcounts and demographics, student support and time span of study. The **Faculty** variables differed somewhat for major disciplinary groupings, with all programs assessed on faculty size, seniority, and research support; and then Social and Behavioural Science programs assessed on publications and citations, while Arts and Humanities programs were assessed using honours and awards. This was the first of the NRC studies to report citation data made feasible by computerization of the *Current Contents* information on citations in journal publications (Hargens 1996, 732).

The results of the 1995 study have been intensely scrutinized, with many universities using the performance of their units in that study as the basis for internal decisions about resource allocations. In some institutions decisions about strategic investments have been tied to the potential to increase placement in the next NRC study, with the result that those disciplines not represented in the NRC study, including Urban Planning, have been ineligible for such investment.

A great deal of re-analysis has been done using the NRC data, including many studies that show reputational rank correlates with objective measures (e.g. Ehrenberg and Hurst 1998; Toutkoushian, Dundar and Becker 1998); studies that demonstrate concentration of publishing among small numbers of departments (e.g. Hodgson and Rothman 1999); and criticisms of behaviours directed to padding numbers of publications and citations without real intellectual merit (e.g. Berry 2000; Brunn 1996).

Among the NRC's own assessments of its work, the most comprehensive analysis is reported in Ostriker and Kuh (2003) who praise the effects of the 1995 study in terms of wide acceptance, comprehensiveness, transparency, and temporal continuity. They

go on, however, to find fault with the study's emphasis on exact numerical rankings, confounding of research reputation with educational quality, emphasis on reputational measures of scholarly quality, and inadequate review of data accuracy by schools. They also criticize the difficulty students face in accessing the data, the length of the ten-year interval between studies, and the groupings used to categorize fields.

Planning School Performance Measurement in the U.S.

Among U.S. planning educators there had been a long-standing reluctance to publication of comparative performance measurements. Results of a national reputational survey included in the first printing of the first edition of the *Guide to Graduate Education in Urban and Regional Planning* (Susskind 1974) were deleted from the second printing, and such a study has never been replicated. In the years since, when the Planning Accreditation Board and the Executive Committee (now Governing Board) of the Association of Collegiate Schools of Planning have considered school rankings, the weight of opinion has always been against undertaking such an endeavor[1].

Other fields closely related to planning have had various studies: *Design Intelligence* (Cramer 2004) has ranked programmes in Architecture, Landscape Architecture and Interior Design since 1998 using employer surveys. Architecture and Public Affairs are ranked bi-annually by *U.S. News and World Report* using surveys of academics2. Groop and Schaetzl (1997) assessed geography departments based on teaching productivity indicators, placement of graduates, and publications counts that include books written and books edited. Strathman (1992) ranked 33 U.S. urban studies and urban affairs graduate programs based on a reputational survey and citation data.

Meanwhile the landscape of American higher education has changed. Disciplinary rankings have become widely used in the internal reward structures of universities as well as in the decisions of national bodies about such matters as invitational memberships and peer group identification (Hargens 1996, 730; Webster 1988).

[1] In a colloquy on the PLANET listerve (planet@listserve.buffalo.edu), former PAB chair Linda Dalton (24 April 2003) and former ACSP president Michael Tietz (28 April 2003) each recalled prior decisions against official ranking projects.

2 Notably, the Public Affairs ranking of programmes in public policy and public administration (but not city planning) includes separate treatment of a City Management category.

Potential students and faculty often use publicized rankings in making decisions about institutions and about fields of study. Legislators and trustees have become accustomed to assessing accountability in significant part through national comparative studies of performance.

Urban planning programs may be losing visibility and resources because they do not participate in comparative performance measurement. Many students learn about graduate fields through rankings and their subsequent publicity, and many universities now base internal allocations and other decisions on results in national performance comparisons. These concerns were partly responsible for the creation of the A.C.S.P. Institutional Data Project in 1999 (see Rosenbloom 2002). Agreement to go forward on that project, however, required stipulation that data on individual schools would not be made public. So, the IDP allows schools to assess where they place in comparison to national averages, but individual school performance data is not available to persons outside of the institution in question.

In 2004, Stiftel, Rukaman and Alam (2004a) published an application of methods from the NRC study to the 84 U.S. urban and regional planning graduate programmes that were full members of ACSP and/or accredited by the U.S. Planning Accreditation Board. They expressed the hopes of: (1) advancing the debate among planning educators concerning appropriate performance measures; and (2) providing data to faculties concerning the relative performance of their school among planning schools generally. The study was limited to those faculty variables used by the NRC for which national data were readily available: principally faculty size, publication rates and citation rates, with the last two drawn from the ISI *Web of Science* database (Institute for Scientific Information 2003). There was no consideration of reputational data or student data. Nor was there consideration of honours or awards, since no national source existed for these data. The authors expressed the hope that others would undertake subsequent studies using other measures, cautioning that their data presented at best an imperfect partial picture of school performance biased toward social science models of planning scholarship and virtually ignoring design, outreach, and teaching.

Findings of the Stiftel, Rukmana and Alam (2004a) study showed that America's planning schools were most often at public research universities, were typically quite

small (mean faculty size = 10), and with seniority similar to that in other university fields. While scientific models were shown to substantially influence U.S. planning faculty work, only about one-half of faculty published an ISI-indexed article in the five-year study period. About two-thirds were cited during the study period. There was considerable concentration of activity among those who do publish, with fourteen schools and eight-six faculty (out of a total of 844) accounting for half of all publications, and five schools and nineteen faculty accounting for half of all citations. There were substantial differences among accredited and non-accredited schools, doctoral degree-granting schools and master's-only schools, publicly-supported schools and private schools.

Comments came quickly, including praise for the study's uses in promoting discussion of the field's paradigm and standards (Tietz 2004), and for the value offered schools in justifying themselves within universities (Myers 2004). Criticisms focused on the lack of measures of design scholarship, practice, teaching and non-English language materials (Forsyth 2004; Myers 2004; Albrechts 2004), as well as the methods of faculty census and the completeness of the publication outlets considered (Fainstein 2004).

Current U.S. Developments

In response to the discussions surrounding the Stiftel, Rukmana and Alam (2004a) study, ACSP assembled a Planning School Performance Measurement Working Group charged with proposing a programme of school assessment intended for implementation by the Association. Working Group membership consists of:

- Linda Dalton, Executive Vice Provost at California Polytechnic State University, San Luis Obispo;
- Ann Forsyth, Professor of Urban Design at the University of Minnesota, Twin Cities;
- Frederick Steiner, Dean of the School of Architecture at the University of Texas at Austin;
- Bruce Stiftel, Professor of Urban and Regional Planning at Florida State University;
- Dawn Terkla, Executive Director of Institutional Research at Tufts University; and
- Nohad Toulan, Dean Emeritus of the College of Urban and Public Affairs at Portland State University.

The Working Group, while cautious about predicting feasibility, quickly agreed to the desirability of assembling national data on school performance. We see three key reasons why U.S. planning schools would benefit from a national program of performance measurement:

1) ***A national system of comparative data on school performance would provide faculty with realistic gauges of the relative quality of our work.***

It is easy to form opinions about how one's work fits into a peer group or a national comparison, but accurate opinions require good information. The same principles that lead us to recommend quality evaluation research for public planning programmes suggest that we should want good evaluation of our own efforts. Such evaluations would require cross-sectional and longitudinal comparisons.

2) ***A national system of comparative data on school performance will allow schools to make believable strategic arguments to the administration of their universities.***

In the increasingly competitive resource-allocation decisions on campuses and within university systems, units that have believable comparative data are in stronger positions to make claims. It is inaccurate to think that only a small number of schools would benefit in this way, since a strong system of performance measurement will show many schools to be leaders in various areas and among different comparison groups, and will also show where resource allocations are tied to the quality of outcomes, allowing school administrators to make arguments for the benefits of increased resources. It is perhaps useful to know that 42 schools (50% of the schools studied) appear in the top 10 on at least one of the nine measures examined in the Stiftel, Rukmana and Alam (2004a) study.

3) ***A national system of comparative data on school performance would improve the visibility of our profession and lead to stronger recruitment.***

As a small profession with limited public profile, city planning struggles to present itself to potential students and to help those students see potential in planning careers and in the schools that could prepare them for those careers. Especially when national data on performance are widely circulated for the fields of Architecture, Landscape Architecture and Public Affairs, the absence of data on Urban Planning schools reduces our comparative visibility. National school performance data would be promoted by universities and by our profession. They would garner media coverage

and web links, leading to greater profile for our schools and a stronger recruiting position for all planning schools.

While we easily agreed to the desirability of national performance measurement, the Working Group has had considerable challenge to develop operating principles for conducting the work. The most difficult issue we have grappled with concerns the treatment of design work and outreach.

The overlapping nature of planners' views for distinguishing research from practice on the one hand, and social science forms of scholarship from design-based forms of scholarship on the other, proved to be difficult to work through. Certain universities embrace artistic accomplishment as the equivalent of research and readily understand arguments that planners as designers need to engage in practice to vet their accomplishments and to influence the evolution of the art. This view is quite different, however from the ethos of community engagement often expressed as an effort, valued on its own, to bring the results of classroom and faculty work into the real world, and conversely, to bring the real world into teaching and research (Checkoway 1998). Certain universities prize community engagement and want to promote it without specific attention to whether the engaged work is research- or design-based. Measures that conflate design and outreach run the risk of not being persuasive in institutional environments which prize one but not the other.

We benefited from Crewe and Forsyth's (2004; 2003) analyses of scholarship in design in which they distinguish creative work that conforms to the standards, practices and sensibility of research, from creative work that stands above the typical through the production of prototypes, and from design practice that can have high artistic or technical merit. We have also drawn from Clay's (2003) discussion of the need to assess the impact of faculty work in moving a professional field, and from Steiner's (2005) enumeration of the mechanisms of judgment for design accomplishment, including design awards, publication of work, exhibitions, and competitions.

We also face considerable challenge in the need to create a system that will fairly measure all schools' performance despite differences in record keeping and tendencies to engage in gaming behaviour. The ACSP Institutional Data Project experience has

shown that data from national sources is generally more reliable, but a paucity of sources suggests that outreach and teaching data will most often have to come directly from the schools, and that certain design data will have to as well. But, we want to be careful not to burden the schools, especially small schools, with unrealistic data collection requirements, and we must design a system that ACSP can afford to implement.

Finally, we have to choose a method of faculty census that will capture the great preponderance of school accomplishments while responding effectively to differences in faculty appointment arrangements across institutions. The difficulties here include planning programmes that are housed in non-departmentally organized colleges, as well as large multi-disciplinary faculty groups that are affiliated with urban planning PhD programs but have no direct reporting lines within urban planning administrative units.

After considering these challenges, the Working Group agreed to the following six **principles**:

- The Planning School Performance Measurement (PSPM) system would be *broadly based*, intending to capture a wide range of planning school activities, including activities in research, design, outreach, and teaching, and including measures derived from both objective and reputational sources.

- Schools with *PAB-accredited bachelor's and master's degree programs would be included* in the PSPM system; non-accredited ACSP-member schools would not participate;

- Analyses and reports would *identify and report data by bachelor's degree and master's degree groupings, as well as by Carnegie category of institution.* Ph.D. programs would be identified, but would not be used as a separate category for display of results, since there is no clear method of determining what is, or what is not, a doctoral program in our field, and since determination of the faculty census for PhD programmes is especially problematic.

- The census of faculty to be included in analysis of faculty productivity measures would *include those faculty identified by the schools as "50% or greater in planning"* in the most recent submission of faculty lists to ACSP. This census would include faculty of any rank in which the word 'professor' appears in the title, so those with the job titles Assistant Professor of Practice or Research Professor would be included, while Instructor, Assistant Scientist, and Research Associate would not. Additional data counting "less than 50%

in planning" faculty will be collected and reported, again with the caveat that 'professor' appear in the job title, but such faculty will not be included in the main faculty productivity analyses.

- Wherever possible, the PSPM system should *rely on independently collected national sources of data*, in preference over data provided directly by the schools.

- The *number of indicators included in the PSPM system should be kept relatively small*, preferably less than 20.

The Working Group went on to envision **a six-year PSPM cycle, with three studies conducted during each cycle**, a first concerned with reputation; a second concerned with faculty scholarship, design and outreach; and a third concerned with teaching performance. Release of the three studies might be spaced two years apart, so that the reputational study might be released in 2007; the faculty scholarship, design and outreach study might be released in 2009; and the teaching performance study might be released in 2011.

*Reputation*

The reputational study would consist of results of a survey of faculty.

The population to be sampled for this survey would consist of persons included in the faculty census as outlined above. The sample would be sufficiently large so that, with each respondent rating 40 programmes, there would be 150 ratings requested for each programme. It is expected that a sample of about 315 faculty would facilitate this result. The sample would be constrained to ensure that the overall sample proportions approximately reflect the size of the various school faculties, and that at least one faculty member is chosen from each school.

Each rater will be assigned a randomly pre-selected group of 40 schools to rate, with the constraint that the rater's current school will not appear on the list. No faculty member will be permitted to rate his current school, nor any school affiliated with a university where s/he has previously worked or studied. Questions in the survey form would confirm which universities these are, and the returned questionnaires would be crosschecked to delete any answers reported for inappropriate schools. A list of census faculty for the schools will be included with the survey to facilitate recall by respondents. While we do not wish to over-specify the administration of the survey,

we believe a web-based survey may both lead to a high response rate and be cost efficient.

For each school, the raters will be presented with a 7-point Likert scale for assessing quality of the program's faculty in each of eight areas of study. The eight areas will include Planning Theory, Planning Methods, and six areas of specialization chosen based on frequency of listing in the current round of data collection for the *Guide To Undergraduate and Graduate Education in Urban and Regional Planning.* Results would be reported as interquartile ranges or as medians rather than as means in order to minimize the effects of outliers on results.

*Faculty Scholarship, Design and Outreach*

This study would be based on national data drawn from the Institute of Scientific Information, the Library of Congress, a group of foundations making fellowship awards, and a group of professional associations making design awards and invitational memberships, as well as from a survey of faculty, and a survey of schools.

A survey of census faculty would be conducted to ensure that national data collection properly distinguishes identities and recognizes former names and affiliations. Each faculty member identified in the most recent ACSP census will be asked their current institution, and rank, as well as the names of all former employers, and any prior names they used professionally.

Then, in a separate survey, each school will be asked to report key outreach, research and design data, for a five-year interval, such as:

- the number of times census faculty testified before local, state, national and international legislative bodies or investigative commissions;
- the number of projects initiated for public- or private-planning clients and the total dollar value of those projects;
- the number of faculty memberships on local, state, national, and international boards and commissions, and
- the number of exhibitions in which faculty work appeared, away from their home campus.

The intent is conduct web-based surveys and to stimulate high response rates through multiple reminders by letter, e-mail and phone.

Finally, name and employment histories provided in the faculty survey will be the basis for remaining data collection from the national sources. While final determination of variables to be included will be the responsibility of the study team, it is expected that variables would include measures like:

- density of ISI-listed publications,
- density of ISI-listed citations,
- new books authored or edited by faculty assigned ISBN numbers by the Library of Congress,
- total number of fellowships to faculty from a fixed list of granting institutions (such as: Fulbright program, Guggenheim Foundation, MacArthur Foundation, U.S. Presidential Fellowships, APA, etc.), and
- total number of national and regional awards to faculty from a fixed list of awarding institutions (such as: AICP Fellows induction, American Planning Association, American Institute of Architects, American Society of Landscape Architects, Environmental Design Research Association, etc.).

Outreach, research and design data will be reported by school (not by individual faculty member).

*Teaching Performance*

Data collection for the teaching performance study would be conducted in conjunction with data collection for the next edition of the *Guide to Undergraduate and Graduate Education in Urban and Regional Planning.* In addition data on degree completions would be collected from the U.S. Department of Education, National Center for Education Statistics, and data on AICP Exam attempts and pass rate will be collected from the Institute. While final determination of variables to be included would be done by the study team, the expectation is that data will include information on:

- the numbers of students admitted to each degree program in each of several recent years,

- the numbers of students first enrolling in each degree program in each of several recent years,

- the interquartile range of GRE verbal and quantitative scores of entering graduate students,

- the interquartile range of undergraduate Grade Point Averages for entering graduate students,
- the demographic makeup of entering students including race, gender and US v. foreign status,

- the percentage of full-time graduate students appointed to graduate assistantships, to non-service fellowships, and to tuition waivers,

- the number of degrees awarded in each of several recent years at bachelor's, master's, and doctoral levels,

- the number of attempts at the AICP Exam and the resulting pass rate by graduates of the school.

*Logistics*

The Planning School Performance Measurement system would be conducted under the oversight of an ACSP committee. Staff would be chosen through a national Request for Proposals. Different RFPs would be used for each of the three studies in the cycle, and different staff might well be chosen for each of the three studies envisioned.

Funding would be provided by ACSP sufficient to reimburse materials and student and contract labor, but faculty labor would be expected to be provided without cost to ACSP.

The Future of Planning School Performance Measurement

The internationally-growing practice of assessing unit performance through systems that lead to single overall scores is difficult for planning programmes that are designed to serve a wide range of multiple objectives and that draw from a wide range of disciplinary traditions. Especially when original panel assessments are used, there is the danger that the work of planning academics will not be evaluated by true peers, but rather by scholars who disagree with the approaches undertaken. Moreover,

planning education's need to be connected to practice through outreach and grounded research and teaching is not likely to be respected and rewarded.

To grow and prosper in an era of rising unit performance measurement, planning schools need to develop credible national or regional systems of assessing quality. These systems should utilize wide ranges of measures intended to capture social science modelled research, design work, outreach and teaching. To be credible, they will have to come from learned societies or professional associations, most promisingly, from associations of planning schools.

In nations that do not have a government-sponsored assessment scheme, such school association-based assessments could provide the evidence school administrators need to make credible claims for resources. In nations that base national-level funding decisions on the outcomes of narrower assessments, the more broadly-based assessments may offer units some ability to argue for discretionary funds at the institutional level. In all contexts, they will provide feedback to faculties about the perceived success of their own work, and they will be of recruitment value by increasing publicity for the field.

In the United States, the ACSP now has a proposal before it that intended to serve these goals. The ACSP Working Group on Planning School Performance Measurement has proposed a system of school assessment involving three separate studies, to be carried out on a six-year cycle, which measure school performance in teaching, social science-modelled research, design work, and outreach, utilizing 25 distinct measures, including eight measures of teaching performance, nine measures of scholarship and other creative work, and eight measures of reputation. This system would provide a great deal of useful information to faculties, would enrich student awareness as they choose fields of study and schools, and would allow unit administrators to argue more effectively for resources within the mission contexts of their individual schools.

## REFERENCES

Albrechts, Louis. 2004. A challenge for the global planning community? *J Planning Education and Research*. 24(1):26-27.

Australia, Department of Education Science and Training. 2004. AMeasuring excellence in research and research training.@ Proceedings of a conference held at the Shine Dome, Canberra, 22 June. Canberra.

Balducci, Alessandro. 2005. Collegiality within a mass university system: reflections from Italy. *Planning Theory and Practice*. 5(2):249-251.

Batterham, Robin. 2005. Measuring excellence: a Chief Scientist perspective. Pp. 3-9 in *Measuring Excellence in Research and Research Training: Proceedings of a conference held at the Shine Dome, Canberra, on 22 June 2004.* ed. National Academies Forum and Australia, Department of Education, Science and Training. Canberra: Australian Academy of Science.

Berry, Brian J.L. 2000. "Citations as measures of worth." *Urban Geography* 21:283-284.

Braithwaite, Valerie. 2005. Excellence in social sciences in the context of impact on public policy. Pp. 44-50 in *Measuring Excellence in Research and Research Training: Proceedings of a conference held at the Shine Dome, Canberra, on 22 June 2004.* ed. National Academies Forum and Australia, Department of Education, Science and Training. Canberra: Australian Academy of Science.

Brunn, Stanley D. 1996. "Quality research performance: issues of splitting, cloning, citing, significance and judging." *Professional Geographer*. 48: 103-105.

Butler, Linda, Grit Laudel, Claire Donovan, Frank Jackson, David Siddle, and Ian Lucas. n.d. Strategic assessment of research performance indicators: an ARC linkage project. http://repp.anu.edu/au/Linkage. (accessed 4 May 2005).

Checkoway, Barry. 1998. Professionally-related public service as applied scholarship: guidelines for the evaluation of planning faculty. *J Planning Education and Research*. 17(4):35-360.

Clay, Philip. 2003. Scholarship reconsidered. Plenary address to the ACSP Administrators Conference, Amelia Island FL, 21 October 2003.

Cramer, James P. 2004. America's Best Architecture and Design Schools. *Design Intelligence*. 10(11):2-39.

Crewe, Katherine and Ann Forsyth. 2004. Research in design: definitions and limits. Manuscript. Minneapolis: University of Minnesota, Twin Cities.

_____, and _____. 2003. LandSCAPES: a typology of approaches to landscape architecture. *Landscape J*. 22(1):37-53.

Ehrenberg, Ronald G. and Peter J. Hurst. 1998. "The 1995 ratings of doctoral programs: a hedonic model." *Economics of Education Review*. 17:137-148.

Fainstein, Susan. 2004. Letter to the editor. *J Planning Education and Research*. 24(2): .

Forsyth, Ann. 2004. The view from design. *J Planning Education and Research*. 24(1):24-25.

Goldberger Marvin L., Brendan A. Maher and Pamela Ebert Flattau, eds. 1995. *Research-doctorate Programs in the United States: Continuity and Change*. Report of the Committee for the Study of Research-doctorate Programs in the United States, sponsored by the Conference Board of Associated Research Councils, and conducted by the Office of Scientific and Engineering Personnel, National Research Council. Washington, DC: National Academy Press.

Groop, Richard E. and Randall J. Schaetzl. 1997. "Productivity profiles of Ph.D.-granting geography departments in the United States: 1980-1994. *Professional Geographer*. 49:451-464.

Hargens, Lowell L. 1996. Review of RESEARCH DOCTORATE PROGRAMS IN THE UNITED STATES: CONTINUITY AND CHANGE, ed. M.L. Goldberger, B Maher and P.E. Flattau. *Contemporary Sociology*. 25:729-732.

Hodgson, G.M. and H. Rothman. 1999. "The editors and authors of economic journals: a case of institutional oligopoly?" *Economic Journal* 109:F165-186.

Institute for Scientific Information. 2003. *Web of Science*. http://www.isi4.isiknowledge.com/portal.cgi/wos (accessed January through March 2003).

Jamrozik, Konrad, David P. Weller and Richard F. Heller. 2004. Research assessment: there must be an easier way. *Medical J of Australia*. 180(11):553-554.

McCalmann, Iain. 2005. Excellence in the humanities, creative arts and media. Pp. 20-25 in *Measuring Excellence in Research and Research Training: Proceedings of a conference held at the Shine Dome, Canberra, on 22 June 2004.* ed. National Academies Forum and Australia, Department of Education, Science and Training. Canberra: Australian Academy of Science.

Myers, Dowell. 2004. How can planning schools be usefully compared? *J Planning Education and Research*. 24(1):25-26.

New Zealand, Tertiary Education Commission. 2004. APerformance-based research fund: evaluating research excellence: the 2003 assessment.@ Wellington, April.

Organization for Economic Cooperation and Development. 1997. *The Evaluation of Scientific Research: Selected Experiences*. OECD/GD(97)194. Paris.

Ostriker, Jeremiah P. and Charlotte V. Kuh, eds. 2003. *Assessing Research-doctorate Programs: a Methodology Study*. Report of the Committee to Examine the Methodology for the Assessment of Research-doctorate Programs, Policy and Global Affairs Division, National Research Council of the National Academies. Washington DC: The National Academies Press.

Punter, John. 2003. "The UK research assessment exercise: the evaluation of planing research and its implications." Paper prepared for presentation at the Joint Congress of the Association of Collegiate Schools of Planning and the Association of European Schools of Planning, Leuven, Belgium, 8-11 July 2003. Cardiff, Wales CF10 3WA UK: Cardiff University. punterj@cardiff.

_____. 2002a. "Reflections on the 2001 United Kingdom research assessment exercise for town and country planning." *Town Planning Review*. 73:333-349.

Rosenbloom, Sandra, ed. 2002. "Report of the ACSP Institutional Data Project." Association of Collegiate Schools of Planning.

Steiner, Frederick. 2005. Assessing design productivity. Presentation made to the ACSP Administrators Conference, Cincinnati OH, 2 April 2005.

Stiftel, Bruce, Deden Rukmana and Bhuiyan Alam. 2004a. Faculty quality at U.S. graduate planning schools: a National Research Council-style study. *J Planning Education and Research*. 24(1):6-22.

_____, _____, and _____. A reply to graduate planning school study responses. *J Planning Education and Research*. 24(2):

Strathman, James G. 1992a. "A ranking of U.S. graduate programs in urban studies and urban affairs." *Journal of Urban Affairs*. 14:79-92.

Susskind, Lawrence. 1974. *Guide to Graduate Education in Urban and Regional Planning.* 1st ed. Cambridge, MA: Association of Collegiate Schools of Planning.

Thomas, Huw. 2005. Pressures, purpose and collegiality in UK planning education. *Planning Theory and Practice*. 5(2):238-247.

Tietz, Michael B. 2004. Assessing the quality of U.S. planning schools: a comment. *J Planning Education and Research*. 24(1):23-24.

Toutkoushian, Robert K., Halil Dundar and William E. Becker. 1998. "The National Research Council graduate program ratings: what are they measuring?" *The Review of Higher Education*. 21:427-443.

von Tunzelmann, N. and E. Kraemer Mbula. 2003. Changes in research assessment practices in other countries since 1999. Working paper. University of Sussex, Science and Technology Policy Research.

United Kingdom, Higher Education Funding Councils. 2003. *Review of Research Assessment*. Report by Sir Gareth Roberts to the UK Funding Bodies. Bristol. www.hefce.ac.uk.

_____. 1999. *Research Assessment Exercise 2001: Assessment Panels Criteria and Working Methods*. Bristol.

Voogd, Henk. 2001. Comment. *Town Planning Review*. 73(3):350-352.

Webster, David S. 1988. "Reputational rankings of colleges, universities and individual disciplines and fields of study, from their beginnings to the present." Pp. 234-303 in *Higher Education: Handbook of Theory and Research*, vol. 8, ed. J. Smart. New York: Agathon.

# Report from the Planning Profession

**Liz de Chastel – National Policy Officer**
**Planning Institute of Australia**

**Report to ANZAPS – October 2005**

Planning Institute Australia
'Creating Livable Communities'

# Report will cover:

- Introduction of Certified Practising Planner
- Continuing Professional Development
- PIA National Inquiry into Planning Education & Employment
- Policy Focus 2005-06

**BUT FIRST A FEW  WORDS ABOUT THE INSTITUTE & PLANNERS……**

Planning Institute Australia
'Creating Livable Communities'

# Information on PIA……..

- The Planning Institute of Australia (PIA) is the only national body representing planning professionals & has Divisions in each State/Territory
- PIA supports members working in Australia and overseas.
- PIA currently represents over 4300 members and is growing at a rate of 15% per annum.
- PIA has been serving planning professionals and promoting planning since its establishment in 1951.

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# What does PIA do?…..

**PIA's pivotal role is to represent the planning profession, support its development, and serve the public interest of Australian communities. It aims to do this through:**

- Promoting the professional interest of our members
- Establishing and administering standards of professional competency
- Developing and communicating planning knowledge to the profession
- Supporting and promoting developments in planning education, training and research
- Providing a forum for professional networking and exchange of views on planning issues
- Promoting debate and increasing recognition of planning within the community, government, industry and academia

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# PIA Strategic Priorities

PIA has seven equally important strategic priorities:

- Policy & Agenda Setting
- Member Services
- Profile, reputation & influence
- Education & Professional Development
- International
- Chapters and Organisational Change
- Operations & Financial Management

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# PIA University Accreditation

- Planning Courses accredited for 5 years by visiting board (Academic Chair from another State + 2 State reps)
- Planning School provides a written report
- Two Day review – visiting & talking to staff/students
- Visiting board provides report with recommendations to the University, for input/comment
- Final report provided to PIA National Council for endorsement
- Provisional accreditation can be given to new courses

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# Profile of the Planning Profession…….

- Planning graduates are one of the top 9 professions to have the highest employment rate (over 92%)
- In 2005 there were an estimated 8 200 planners in Australia, representing a 60% growth in the profession over the last 5 years
- 58% of planners are male and 42% female
- Planners are rated on the highest level for future job prospects over the next 5 years (Source: DEWR: Australian Jobs 2005)
- Around half of planners work in Local Government, 30% in the private sector and 20% in State/Commonwealth and Universities
- There is a substantial “drop-out” of experienced women planners 35+ years (Source: 2001 Census)
- Planning positions have an average vacancy rate of 16% over the last 3 years (Source: Nat Inquiry survey)

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# Update on Certified Practising Planner……

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# Why Certify Planners?

- Over the last few years there have been various debates and concerns expressed within PIA and beyond about planner qualifications, the need for lifelong learning or training of planners, the need to enhance the professionalism of planners, and planners standing in the community

- Certification responds directly and indirectly to a number of key recommendations of the PIA *National Inquiry into Planning Education and Employment* relating to improving the professional standing, training and recognition of planners

- Certification gives the community, governments, fellow professionals and the development industry an assurance that a Certified Planner has the appropriate qualifications, experience and training considered appropriate for a practising planner by PIA

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# What is Certification? – Introduced in July 2006

- Certification is an assurance to the community, governments and fellow professionals that a planner has recognised qualifications, an appropriate level of experience and has maintained a programme of continued professional development
- A Certified Practising Planner is entitled to use the honorific CPP, in addition to MPIA (Member of the Planning Institute of Australia)
- CPP status will be renewable annually upon demonstrating that continuing professional development requirements for the preceding period have been met

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# Overview of PIA Certification Requirements

- Corporate Member of PIA
- Complete 4 compulsory units of training
- Demonstrate commitment to CPD
- CPD documented & audited
- Certification fee

The certification proposal will not diminish the status of PIA Corporate Membership

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# Planning Practice Course

**1. Legislation & Governance**

- *Planning law*
- *Planning governance & best practice updates*

**2. Professional Ethics**

- *Ethical foundations of planning, PIA Code of Conduct*
- *Ethical perspectives & case studies*

**3. Project Management**

- *Project life cycle, role of project managers, working with teams*
- *Case studies*

**4. Effective Communication, Negotiation and Mediation**

- *Understanding conflict, approaches to resolving conflict*
- *Assessment of personal styles, role plays*

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# How can ANZAP members be involved in CPP?

- ANZAPS members can bid on the development and delivery of one or more Planning Practice Course units. Requests for tenders were sent to all Planning Schools on 9th September 2005. Submissions close on 7th October. Contact Rosalie Roberts at the PIA National Office or at education@planning.org.au

- ANZAPS members are encouraged to become CPPs.

- Let planning students know about CPP

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# How PIA is improving training for planners after graduation…….

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# Continuing Professional Development

- New CPD Policy to take effect from 1st July 2006
- Compulsory CPD has been confirmed and compliance will be audited
- Range, type and accessibility of CPD expanded – for PIA and non PIA sponsored activities
- Web based system being developed for on-line records

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# PIA's response to planner shortages, workplace issues and training…….

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# National Inquiry into Planning Education and Employment

- Inquiry completed in August 2004
- Found a critical shortage of planners – especially in major cities and sea change communities
- Long term problem exists within rural and regional communities
- Planners working in development assessment within Local Government often experienced difficult working conditions
- Planners often too busy to get time off work to attend training

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# PIA's response to findings……

- National Committee established to oversee implementing recommendations
- Lobby Government to recognise urban and regional planners as an "occupation in demand" for visa purposes
- Setting up cadetship agreements with state govts
- Increasing student intakes & fostering new courses
- Developing a Code of Conduct to guide the relationship between elected representatives and the profession
- Seeking local government workplace flexibility
- Introducing mentoring schemes for final year planning students

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# How ANZAPS can support Inquiry:

- Supply student enrolment and and graduation statistics on an annual basis so PIA can monitor the trends in the supply of planners (as per the recent request to all heads of planning schools)
- PIA seeks feedback on impact of fees on student numbers
- PIA seeks feedback on the disparity of length of presently accredited postgraduate planning programs, to determine whether changes are required to the PIA Education Policy
- Liaise with PIA National Education Convenor (a.siksna@uq.edu.au)

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# PIA active in policy development……

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# Some PIA policy initiatives…….

- Lobbying for Commonwealth involvement in planning
- An inter-governmental agreement to improve the efficiency of our cities and regions & address the need for infrastructure renewal
- Developing a suite of policy statements on issues such as metropolitan planning, water, energy, congestion costs, etc
- Working closely with POG (planning officials group)
- Involved in ACIF, BDP and ASBEC
- Seeking simplification of planning regulation & systems

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# Potential collaboration with ANZAPS on Policy Development

- Opportunities for ANZAPS members to work collaboratively with PIA to undertake research on significant planning issues and bid for available grants (such as ARC grants)

- Members of ANZAPS can provide input and help shape PIA Policy development (ANZAPS members already involved with shaping CPP policy & Inquiry implementation)

- ANZAPS members can contact the PIA Policy Officer – Liz de Chastel at National Office or at policy@planning.org.au to discuss any of these issues further.

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# A few final words……

- Thank-you for the opportunity to talk to ANZAPS about PIA initiatives
- PIA looks forward to strengthening this important relationship with ANZAPS, as the primary educators of the planning profession
- The planning profession is embarking on an exciting new era with the introduction of CPP – we look forward to your continued support

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