

---

# Urban Design Training Courses: *Leading by Design*

Andrew Olszewski  
Zenon J. Pudlowski

UNESCO International Centre for Engineering Education (UICEE), Faculty of Engineering,  
Monash University, Clayton, Melbourne, VIC 3800, Australia

---

Two education and training courses, with the common title *Leading by Design*, concerning urban design, planning and management have been designed, developed and implemented by the UNESCO International Centre for Engineering Education (UICEE) under its Urban Design and Education Programme (UDEP). An *Urban Design Training Courses* project, one of the five individual projects, concentrates on the education and training activities for urban planning, design and management personnel to cater for the specific and critical needs of personnel of councils, government units and private industry. The first course, *Leading by Design: an Executive Level Course*, is intended for the Local Government sector, senior personnel and top practitioners, particularly for those whose decisions impact on the built environment and location of activities, whereas *Leading by Design - a Practitioners Level Course* is intended for practitioners in the Local Government sector and private industry in relation to using urban design in order to achieve better development outcomes for local communities. The paper presents the philosophy, structure, content and execution of the two courses. Feedback from participants obtained on the completion of the courses is also presented and discussed in the paper.

---

## BACKGROUND

The UNESCO International Centre for Engineering Education (UICEE) vigorously pursues research and development activities concerning urban design, planning and management within the Urban Design and Education Programme (UDEP).

The UDEP is a joint enterprise of the UICEE and the Urban Design Unit within the State of Victoria's Department of Infrastructure. The entire programme consists of five individual projects, relevant to the operation of the programme, including an *Urban Design Training Courses* project.

## INTRODUCTION

The establishment of the UDEP was possible because of the recognition by the State Government of Victoria of the importance of such issues as sustainability, sustainable development, environmental protection, urban planning, urban design and management. The Urban Design Unit of the Victorian Department of Infrastructure has identified the UICEE as the best partner for research and development in this critical

area, with the initial emphasis on the process of making cities and their structures more livable [1].

The existing urban areas of our towns and cities experience major social change that manifests itself in decreasing household sizes. This de-population of urban centres and the combined ecological and economic costs of urban sprawl are behind the Government's policy of urban consolidation and a new performance-based planning system.

The resulting re-urbanisation of our suburbs requires a new set of design-based skills from all parties involved in the process. The paramount aim of this programme is to improve design assessment skills in relation to development proposals within the existing urban area [2].

Although, at this stage, the programme mainly concentrates on issues of importance to the Australian State of Victoria, it is envisaged that global issues will also be addressed and tackled. The key objectives of the UDEP include:

- Improvement of urban design skills.
- Development of innovative urban design processes and tools.

- Enhancement of public awareness of urban design issues and opportunities [3].

The paramount objective of the five projects is to address critical issues of importance concerning the process of urban design, planning and management, as well as to carry out research and development in this area. Also, the development of tools relevant to the process is undertaken under this programme. These UDEP projects are:

- Design Assessment Criteria and Methods for Performance Oriented Planning.
- Design Mediation and Community Consultation.
- Urban Design Tools.
- International Urban Design Fellowship Programme.
- Urban Design Training Courses.

It should be mentioned at this point that most of the education effort is being concentrated in the Urban Design Training Courses project. However, each project contains some elements concerning education [4].

## TRAINING

In order to provide the urban design, planning and management personnel in Victoria with the opportunity to expand their knowledge and skills, two comprehensive courses have been developed and carried out under the Urban Design Training Courses project [5].

The *Leading by Design: an Executive Level Course* is specifically designed for councillors and chief executive officers within the Local Government. The *Leading by Design: a Practitioners Level Course* is for council officers and private practitioners. Both courses are aimed at improving urban design skills, and have two key objectives, namely to:

- Provide training opportunities that explore urban management techniques to achieve a vision, introduce public communication concepts and explore the issues of the re-urbanisation experience and planning reform.
- Provide training and professional development to improve design assessment skills in relation to development proposals in existing urban areas.

The more specific project objectives are to:

- Explain the nature of re-urbanisation, experienced by Victoria and the objectives of planning reform.

- Develop skills in setting environmental and built form visions.
- Explore urban management techniques to achieve visions.
- Outline innovative administrative structures.
- Improve design assessment and mediation skills.
- Introduce a number of public communication concepts.

The first course targets councillors and chief executives within the Local Government [6]. It is particularly intended for the Local Government sector and top practitioners and specifically for those, whose decision impact on the built environment and location of activities.

The main objective of the course is to introduce a structured approach to the process of managing the urban environment in consultation with the community - *place management*. Furthermore, the course introduces an innovative approach to urban design by organising so-called *design studios* and placing emphasis on their role in the urban management process [7][8].

The practitioners level course complements the executive course by concentrating on the needs of practitioners from Local Government and private industry in relation to using urban design in order to achieve better development outcomes for local communities [9].

## THE EXECUTIVE LEVEL COURSE

The main objective of the course is to introduce a concept of public authority's responsibility for the outcome of urban development in relation to specific locations: the *places*.

Utilising the traditional approach that concentrates on a specific project or service, place management is interested in improving the performance of the selected area.

Its particular interest is in the coordination of various activities, such as road building, private development or the prioritisation of new infrastructure, in order to preserve or enhance the physical qualities of the managed place.

### Place Management

Place management is an innovative model of delivering desirable urban development outcomes by integrating fields of planning, engineering, management and design into one process focused on the physical location. The course is structured around the following steps of place management:

- Understanding the area as a place.
- Developing a vision, interpretation and agenda.
- Establishing partnerships with stakeholders.
- Introducing a structured process and a timetable.
- Adjusting the administrative process to place management.
- Developing the skills of professionals to respond to that process.
- Communicating the urban agenda and consulting with the community.

In developing the course, it was envisaged that the following key skills, required for successful place management, would be covered in the course:

- Agenda-setting for urban development.
- Urban design processes.
- Developing appropriate administrative structures.
- Introducing the urban agenda to the public.

### The Role of Urban Design

The urban design process is used in overall place management, not just at the traditional project level, but more strategically by interpreting Municipal Strategic Statements (MSS) and other policies in a physical way.

Urban design is a unique, three-dimensional multidisciplinary approach aimed at achieving safe, functional and aesthetically relevant public environments for local communities. It sits alongside other techniques like strategic planning, cultural planning, regional development and economic strategies. Rather than a replacement to any of these, it could be seen as integrative, drawing on other techniques and acting as an implementation tool itself. It enables the built environment to express local influences and conditions in a creative way [10].

While there are many players (social scientists, lawyers, economists, ecologists, engineers, etc) tied up in the management of place, there is a core group whose understanding of the relationship between urban structure, spaces and buildings, and ability to develop three-dimensional concepts is central. The *urban design* expertise embraces the following key areas:

- The relationship of built form to topography and setting.
- The relationship of built form to the historical development of a place.
- Urban structure (including building and spatial typology).

- The relationship of built form to activity and movement.
- The generation of 3D concepts at an urban scale.
- The presentation and explanation of the concept of place management.

The role of the urban design process in the interpretation of planning policies, such as the MSS, was introduced in course modules. Urban design was introduced as a creative way of developing concepts to express local values, influences and aspirations.

The course contents concentrates on the appropriate use of three-dimensional skills and tools in the process of place management.

### Course Structure

The *Leading by Design: an Executive Level Course* includes four basic modules. These are:

- Module 1: Vision Setting
- Module 2: Establishing a Place Management Process
- Module 3: Skills and Administrative Setting
- Module 4: Communicating the Agenda

#### Module 1: Vision Setting

The first task in place management is to develop a clear vision and the agenda for the future actions. This three-dimensional vision includes a creative interpretation of strategic objectives, such as the MSS and corporate strategy.

The process of establishing this urban vision, called urban design, is already well accepted but has not been used very often at the strategic level.

An effective vision must be based on the local knowledge, in particular: community culture; economic characteristics; and an understanding of the environment.

It should capture the community's aspirations and project them into the future while also considering regional and global implications.

A vision should achieve:

- Support from the community.
- Partnership with stakeholders.
- Clarification of the physical objectives.
- Determination of the timing for implementation.
- Definition of sources of funding.
- An established design agenda.

#### Module 2: Establishing a Place Management Process

Traditionally, urban management at local government

has been based on zonal planning and facilitating incremental developments. The new planning system is much more flexible and strategic.

The place management process offers a new level of interpretative skills and design tools that will operate across government departments in order to become fully effective. This requires the following:

- Urban Design Framework Plan.
- Identification of a class of area.
- Development of an urban management process.
- Development of assessment/project delivery and capital works coordination.

Place management offers tools for action in order to realise the vision. These include:

- Urban design policies.
- Strategic framework.
- Workshops and charrettes.
- Heritage guidelines.
- Urban character guidelines.
- Design guidelines.
- Urban design frameworks.
- Project briefs.
- Action plans.
- Urban context reports.

### Module 3: Skills and Administrative Setting

In this module, a new administrative structure is proposed that provides for a more efficient and strategic use of skills and resources.

Traditionally, the skills available in Local Government are limited to planning and engineering. Generally, this means two-dimensional abilities.

Current development processes are challenging this level of skills by the new scale of buildings, which are being inserted amongst the existing urban fabric.

The new skills required by the current urban development practice include:

- The ability to analyse the natural landform and built form.
- The ability to generate clear three-dimensional design concepts.
- The ability to evaluate design proposals against council's own policies and strategies.

In addition, greater integration between council divisions and disciplines is proposed with a focus on achieving desirable outcomes.

Some of the key changes include:

- Inclusion of place management objectives among senior management performance indicators.
- Introduction of place management objectives in strategic documents.
- Establishment of an urban design advisory panel.
- Team- or project-based staffing structure.

### Module 4: Communicating the Agenda

Community leaders play an important role in establishing a council's agenda. It is fundamental that they are able to clearly articulate both the vision and the reason for change at all community levels. They need to lead the debate and negotiate with the other levels of government and the private sector.

The process of communication requires a structural approach to all place management activities. In particular, every step of place management requires coordination with other stakeholders and public consultation.

Key elements of a communication strategy include:

- *Information*: to effectively inform the public about council's plans and actions.
- *Attracting comments/feedback*: to match council's plans with public needs and achieve broadest ownership.
- *Conflict resolution*: to reduce potential conflicts early.
- *Crisis management*: to professionally manage difficult situations.
- *Marketing*: to promote ideas and concepts.

### Course Attendees

The course was conducted at the Monash Conference Centre, Monash University on 7 April, 2000, and was attended by 35 persons, including:

- Members of Parliament
- Mayors
- Councillors
- Chief Executive Officers
- Directors and Managers of relevant departments in Local Government
- Private sector representatives (Mirvac, Australand)

Five of the course attendants originated from the private sector, 19 from metropolitan Melbourne and 11 from regional Victoria.

## Course Assessment

A survey questionnaire was designed and developed in order to elicit feedback information concerning the course structure, contents and delivery. Course participants were asked to complete the questionnaire on completion of the course.

Generally, the participants rated the course content as:

- Highly relevant 75%
- Course facilitation 67%
- Overall rating of the course 65%

The percentage of the responses is given here in brackets.

Participants were also asked about their interest in the individual modules. The interest in the modules was rated as follows:

- Module 1 30%
- Module 2 75%
- Module 3 30%
- Module 4 70%

It should be emphasised at this point that participants generally provided very positive feedback concerning the course. They were also interested in all the suggested follow-up training methods and study materials such as:

- Course notes.
- More practical examples.
- Training assistance.
- Urban design advice.
- Case studies.

The respondents also indicated their interest in the other activities related to the Urban Design and Education Programme, including:

- Design studios.
- Design assessment project.
- Design mediation.
- Urban design tools.
- Conferences.

Some of the participants' general observations and opinions concerning the course were as follows:

- *Excellent - should be run again.*
- *Needs to be part of ongoing agenda.*
- *Excellent structure of the course.*
- *Great initiative.*

The following specific comments and suggestions were also received:

- *More details on formulating design workshops and involvement of the community should be included in the relevant module.*
- *The overseas examples and other planning models were successful in highlighting the needs to better integrate urban design and statutory planning.*
- *More time should be spent on case studies: from concept to project completion.*
- *State Government should lead by example and demonstrate the benefits of an integrated model in its own practice.*
- *Improve analysis of current Local Government structures, between process and vision.*
- *Course should include examples of urban design processes and projects, which are relevant to regional centres.*
- *State and Federal Governments should participate as partners with Local Government in establishing an urban design practice.*
- *Preparation of staff training guidelines for putting place management strategy into practice was seen as a priority.*
- *Some participants suggested that the next course should be delivered over a longer period (two days).*
- *Councils who want to follow the place management approach need to sell the urban design agenda internally and externally to their community.*
- *Council's internal implementation of urban design practice will require a whole of organisation approach.*
- *For councils to successfully introduce urban design practice, the community's ownership of the approach will be critical.*

The course participants indicated an interest in, and support for, other UDEP activities such as:

- Design assessment project.
- Design mediation project.
- Urban design tools project.
- Design conferences and design studios.

The response to the course was very enthusiastic, especially to the panel discussion, which included The Hon. Justin Madden, Minister Assisting the Minister for Planning.

During the panel, the course presenters encour-

aged debate and discussion on the respective State and Local Governments' roles in improving urban management and development practice.

## THE PRACTITIONERS LEVEL COURSE

The inaugural *Leading by Design - a Practitioners Level Course* was conducted in collaboration with the Urban Design Unit of the Department of Infrastructure and the City of Port Phillip from 10 to 11 August 2000 at the St Kilda Town Hall. The course was conducted over two days. The morning sessions presented the theory and the methodology, whereas the afternoon workshops involved the participants in the implementation of methods and processes.

The course combined presentations from experts in the urban design field and practical workshops based on case studies from the City of Port Phillip.

The hosting of the course by the City of Port Phillip supported the practical Local Government orientation of the course. The City of Port Phillip is regarded as one of the leaders in community-based engagement with urban design issues and has been working with the UICEE on another joint project, the St Kilda Junction.

The Mayor of the City of Port Phillip, Cr Julian Hill, addressed the course participants emphasising the vital role of urban design in achieving the vision for the city and the importance of the relationship of urban design to planning functions in the city.

The key skills and processes covered in the Course included:

- The role of urban design.
- Urban context analysis.
- Urban design frameworks.
- Public participation and consultation.
- Role of strategic and statutory planning in assessing developments.
- Development assessment and negotiation.

### Course Structure

The course includes six modules, covering a wide spectrum of issues and topics relevant to the professional needs of practitioners.

#### Module 1: Introduction to Urban Design

The Victorian community is expecting good quality and balanced outcomes in the urban development process. The issues of quality of the public realm, safety, functionality and urban character are on the

planning an urban management agenda. The character of the Victorian planning system is changing to accommodate these concerns with particular emphasis on design objectives.

This module addressed issues such as the philosophy behind the urban design approach, an analysis of the situation in Victoria and the main issues, government policy and how urban design tools and techniques can be employed to assist in administering this new approach.

#### Module 2: Role of Strategic and Statutory Planning in Assessing Developments

The Victorian Government has emphasised the need for a greater strategic planning at the local level and has required councils to undertake Municipal Strategic Statements (MSS) to set an overall direction for the development of municipalities. MSS's have an important role to play in assessing proposed developments, and this module addressed how strategic documents can be interpreted into physical concepts to guide a development assessment.

#### Module 3: Urban Context Analysis

A tool that is being used by some Local Governments and the State Government in Victoria to assess design proposals is the urban context analysis. By understanding the context of a proposal, the design response can then be assessed against how it meets the opportunities and constraints identified through the urban context analysis. The module demonstrated how a context report should be undertaken and what factors need to be considered in preparing such an analysis.

#### Module 4: Urban Design Frameworks

A number of urban design tools have been developed or adapted to suit Victorian conditions. They include innovative urban design techniques like Urban Design Frameworks, Urban Context Reports and site analysis. The module demonstrated some practical examples of the advanced design practices used by leading practitioners. It highlighted the need and benefits of creative approaches to the resolution of design and planning problems.

#### Module 5: Public Participation and Consultation

The planning process deals with issues that concern local communities, as well as wider community interests. Mediating these interests is often difficult; a

number of methods and their effectiveness were reviewed in this session. They include the statutory requirements for consultation, how to use focus groups, charettes, workshops and public meetings to build consensus and an understanding of the design issues and community concerns.

#### Module 6: Development Assessment and Negotiation

An important factor in achieving a quality development outcome relates to the ability of the Council to successfully negotiate design conditions that support Local Government planning objectives. To successfully achieve this, a number of issues need to be understood and include: regional and local influences, community values, limitations of individual interpretation of designs and basic negotiation techniques.

#### Workshop Sessions

Two workshop sessions were carried out in the course, and the participants worked in the same group during both workshops. The workshop sessions involved the participants in the practical implementation of methods and processes using five sites as case studies. The participants were divided into five groups each with a site from within the City of Port Phillip. The sites were:

- Southern Gateway (Nepean Highway)
- Barkly/Grey/Inkerman node
- Kingsway/Westgate interchange
- Carlisle/Acland/Barkly Triangle
- Balaclava Urban Village

The first workshop concentrated on the development of an Urban Context Report, whereas the second workshop dealt with the design assessment and development controls for the selected sites. The groups presented their work at the conclusion of each workshop, and the course presenters provided feedback and invited general discussion.

#### Workshop 1: Urban Context

The aim of this workshop was to develop the understanding and skills required to establish an urban design position for a specific precinct using an urban context report methodology. Once the position has been established and defined, it should guide council's own activities (ie streetscape improvements, landscape, etc) and provide a direction for incremental private development.

The following documentation and information was provided for the first workshop:

- Plans of the precinct at 1:2,000 or 1:1,000 (including topography, street grid, land subdivision and transport).
- Municipal Strategic Statement (MSS).
- Existing planning documents and schemes.
- Aerial photos.
- Precinct photos (preferably panoramic).
- Neighbourhood/precinct studies.
- Design manual.
- Background summary to each site, including:
  - Significance of site/broader context.
  - Uses.
  - Transport.
  - Built form.
  - Landscape.
  - Heritage.
  - Development history.
  - Development pressures.

#### Workshop 2: Establishing site specific development controls

The aim of the second workshop was to provide hands-on experience in the development of the site-specific planning and urban design conditions, as well as guidelines based on the previously completed urban context report. The teams were limited to different sets of tools and conditions (ie five models) in order to explore the potential effectiveness of different design assessment approaches.

Using five models from the UDEP Design Assessment project, the groups prepared planning controls for the five sites.

#### Group 1: Traditional Statutory Model

The following documentation was provided to the group, including the height controls:

- Municipal Strategic Statement.
- Local Planning Scheme.
- Height control overlay.

#### Group 2: Statutory Model

The second group received the following documentation, including building envelopes and design objectives:

- Municipal Strategic Statement.
- Local Planning Scheme.

- Design objectives from local section of scheme.
- Design overlay.

#### Group 3: Enhanced Statutory Model

The third group received the following documentation, including design objectives, envelopes and plot ratio less than envelopes:

- Municipal Strategic Statement.
- Local Planning Scheme.
- Design overlay.
- Design objectives from local section of scheme.
- Design envelopes and plot ratio.

#### Group 4: Design Objectives and Performance Criteria Model

Group 4 received the following documentation:

- Municipal Strategic Statement.
- Local Planning Scheme.
- Design overlay.
- Design manual and design objectives and performance criteria (no height controls).

#### Group 5: Urban Design Framework, Guidelines and Performance Criteria

Finally, the following documentation was provided to this group:

- Municipal Strategic Statement.
- Local Planning Scheme.
- Design overlay.
- Urban Design Framework guidelines.
- Performance criteria.

The results of each model of design assessment were discussed in terms of the design requirements as specified by the State Planning Policy Framework (SPPF), City of Port Phillip MSS, the Design Manual, and the local Planning Scheme. Figure 1 displays the results from a workshop session.

The course concluded with a panel discussion, which included the course presenters, a manager from Australand, representing the development industry and a planner from SJB Planning, representing private sector planning expertise. The panel discussion concentrated on the effectiveness of different models of development control. The Urban Context workshop provided course participants with a good base for their work on development controls. The different limitations placed on all but one group were intended to test

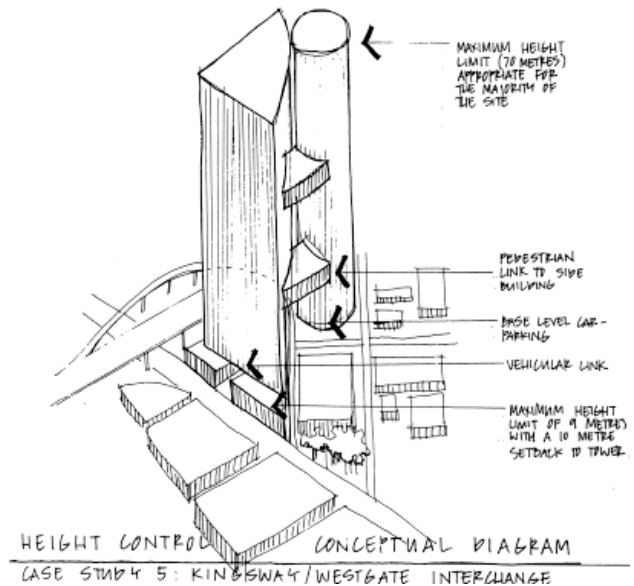


Figure 1: Case Study 5 - an example of a conceptual diagram of the Kingsway/Westgate interchange model.

the capacity of a range of planning and design tools to deliver the desired built outcomes.

The group presentation to the panel and the following discussion clearly articulated the limitations of the traditional height or plot ratio controls. The design-based approach to development controls proved to be much more effective in addressing the issues identified during the Urban Context phase.

#### Course Attendees

The course was attended by 42 participants, including representatives from the Department of Infrastructure, Local Government and the private sector from the fields of:

- Town Planning.
- Statutory Planning.
- Landscape Architecture.
- Architecture.

The course participants originated from:

- Metropolitan Melbourne: 32
- Regional Victoria: 8
- Private sector: 2

#### Course Assessment

Course participants were asked to complete a special survey questionnaire in order to evaluate the course. Feedback from the participants was generally

supportive of the course contents and especially supportive of the workshops introduced in the course. As the course was designed to improve the practical urban design skills of practitioners this is a positive result.

However, it should be mentioned at this point that the group was not homogeneous, with the participants representing several areas of the urban design field and demonstrating different levels of knowledge and skills.

Course participants indicated they would need further assistance to implement the methods from the course, in order of priority, from:

- Case studies 80%
- More practical examples 58%
- Course notes 38%
- Urban design advice 38%
- Training assistance 21%

Further comments expressed in the survey indicated an interest in other activities related to Urban Design program in order of priority:

- Urban design tools 54%
- Design studios 50%
- Design assessment project 46%
- Design mediation 30%
- Conferences 30%

The participants indicated that the workshops, practical examples, and the urban design tools, particularly the Urban Context Analysis and Frameworks, were the sections of the course that were most beneficial.

To improve the course the participants suggested more case studies, examples and analysis of best practice, and extending the workshops. Participants suggested other issues and modules that could be included as a critique on good and bad urban design practice, major development processes and effective urban design practice outside the inner urban context.

General interesting comments from the participants included the following:

- *My background is in environmental service but I have developed a passion for urban design. In reality the two professions interact I have found one being the natural environment the other being the physical interrelationship. I really enjoyed it. Some parts that were glossed over I needed. I will read my notes.*
- *Very good course especially the urban design*

*frameworks and how they are useful for good development design outcomes.*

- *Whilst not specifically relevant in all areas it was certainly interesting in thinking through wider issues than the other limiting statutory process.*
- *Thank you for this opportunity to enhance my understanding of design issues.*

## CONCLUSIONS

Two continuing education courses have been designed, developed and implemented under the Urban Design and Education Programme of the UICEE. Both courses deal with critical issues, knowledge and skills essential for the personnel involved in the process of urban design, planning and management. The courses appear to be a valuable contribution to the process of human resources development for personnel working in the area of urban planning, design and management.

Special survey questionnaires were developed and administered at the end of the courses in order to obtain participants' responses concerning the structure, content and execution of the two courses. The results obtained largely demonstrate very positive responses to the courses.

In the case of the Executive Level Course, it has been found that the course has achieved its prime objective; it refocused course participants on the issues and responsibilities of delivering quality, integrated urban environment, and not just isolated services.

The concept of place management challenges some of the notions of economic rationalism, in particular the tendency to narrow the manager's task to the financial domain. It was pleasing to note a very positive response of course participants to other challenges, such as:

- The development of community membership of their public environment.
- Coordination of private and public sector developments in order to achieve the highest level of synergy.
- Ensuring qualitative, not just numerical, outcomes, particularly in relation to planning and design of public places.

As far as the Practitioners Level Course is concerned, it has been observed that more focus is needed on the really critical issues, concepts and principles, as it is particularly intended for practitioners from the Local Government and private

industry. In its present form the course provides a wide range of topics sometimes difficult to grasp by some practitioners, who may work and specialise in one particular area of the urban design, planning and management fields. Course participants indicated their desire to see more case studies and practical examples, showing good and bad practice, as well as the analysis of such cases.

Generally, the design, development and execution of the two courses have proved to be worthwhile and rewarding exercises. The results have provided course developers with important insights into the courses, and have formed a valuable source of information for the future revision and improvement of the courses.

It is envisaged that the revised and improved versions of the courses will be published in the near future in book form under the UICEE's *Monash Engineering Education Series*.

## REFERENCES

1. Olszewski, A., Urban design education of engineers as a means of achieving more livable and sustainable cities. *Proc. 1<sup>st</sup> UICEE Annual Conf. on Engng. Educ.*, Melbourne, Australia, 25-27 (1998).
2. Olszewski, A., Kouremenos, D. and Pudlowski, Z.J., Re-urbanisation: a challenge for urban design education. *Proc. 2<sup>nd</sup> Asia-Pacific Forum on Engng. and Techn. Educ.*, Sydney, Australia, 282-286 (1999).
3. Prime Minister's Urban Design Task Force, *Urban Design in Australia*. Canberra: Commonwealth of Australia (1994).
4. Nguyen, D.Q. and Pudlowski, Z.J., A comparative study of the perspective of academics, students and industry on environmental education in engineering courses. *Global J. of Engng. Educ.*, 1, 3, 247-257 (1997).
5. Land Use and Development in Victoria. The State's Planning System. Report of the Auditor-General. Performance Audit Report No. 62: Staff Qualifications, Experience and Training. Melbourne: Victorian Auditor-General's Office, 137-140 (1999).
6. Olszewski, A. and Pudlowski, Z.J., Leading by design: an executive level course. *Proc. 4<sup>th</sup> Baltic Region Seminar on Engng. Educ.*, Copenhagen, Denmark, 126-129 (2000).
7. Olszewski, A., Kouremenos, D. and Pudlowski, Z.J., Educating urban designers through design studios. *Proc. 2<sup>nd</sup> Global Congress on Engng. Educ.*, Wismar, Germany, 43-48 (2000).
8. Olszewski, A., Kouremenos, T. and Pudlowski, Z.J., Urban design studios: an effective method in the education of urban designers. *Global J. of Engng. Educ.*, 4, 3, 263-273 (2000).
9. Olszewski, A. and Pudlowski, Z.J., Leading by design: a practitioners level course. *Proc. 4<sup>th</sup> UICEE Annual Conf. on Engng. Educ.*, Bangkok, Thailand, 433-437 (2001).
10. Tesdorpf, P., Axford, S., Olszewski, A. and Young, S., *Designing Competitive Places*. Australian Local Government Association (1997).

## BIOGRAPHIES



Andrew Olszewski received his Diploma of Architecture and Master of Science in Urbanism from Cracow, Poland. He is registered as an architect in Victoria, Australia, and has 25 years of experience in architecture, urban planning and urban design. Originally from Poland, he honed his profes-

sional skills in cooperation with influential European architects and planners from Italy, France, Finland and Germany.

Until late 1986, Mr Olszewski worked as an architect with one of the leading Australian development companies on several major commercial projects including shopping centres, offices, private hospitals, and office and tourism developments. Following his success in 1986 in a national design competition called *Adelaide 2000*, he joined the Victorian Department of Planning and Development where he has promoted a broader European approach to urban planning and design. Projects such as *Arts Village* and *Dandenong District Centre* have helped to re-define the practice of urban design in Victoria beyond its traditional focus on environmental improvements to include issues of transport, economic activity, architectural modelling and community building.

He has played a key role in the development of urban design guidelines for Central Melbourne and made an important contribution to the *Capital City Policy*. He has continually promoted the idea of strategic coordination of land uses with infrastructure provision as one of the critical conditions of long-term development sustainability, and has contributed these ideas to projects of state significance such as *City Link*, *Habitat* and, most recently, the *Southbank Structure Plan*. His leadership in the field of urban design is best illustrated by his involvement in writing

the national urban design policy for Local Government titled *Designing Competitive Places* (for the Commonwealth Government and Australian Local Government Association). In 1996, he coordinated the work of an Australian Federal Government Urban Planning Delegation to China, which developed an urban design framework for the Eastbank precinct of Tianjin's CBD.

He joined the UNESCO International Centre for Engineering Education (UICEE) as the Programme Director of the Urban Design Education Programme (UDEP) in February 1999, seconded from the Department of Infrastructure of the State Government of Victoria. Mr Olszewski is also currently a Director of Urbis, a national consulting property advisers company, which has its headquarters in Melbourne.

He has several publications and has presented many papers at international conferences relating to urban design and place management.



Zenon Jan Pudlowski graduated Master of Electrical Engineering from the Academy of Mining and Metallurgy (Cracow, Poland), and Doctor of Philosophy from Jagiellonian University (Cracow), in 1968 and 1979 respectively. From 1969 to 1976, he was a lecturer in the Institute of Technology

within the University of Pedagogy (Cracow). Between 1976 and 1979, he was a researcher at the Institute of Vocational Education (Warsaw), and from 1979 to 1981, was an Adjunct Professor at the Institute of Pedagogy within Jagiellonian University. From 1981 to 1993, he was with the Department of Electrical Engineering at The University of Sydney where, in recent years, he was a Senior Lecturer.

He is presently Professor and Director of the UNESCO International Centre for Engineering

Education (UICEE) in the Faculty of Engineering at Monash University, Clayton, Melbourne, Australia. He was Associate Dean (Engineering Education) of the Faculty of Engineering between 1994 and 1998. His achievements to date have been published in books and manuals and in over 250 scientific papers, in refereed journals and conference proceedings.

In 1992, he was instrumental in establishing an International Faculty of Engineering at the Technical University of Lodz, Poland, of which he was the Foundation Dean and Professor (in absentia) (1992-1999). He was also appointed Honorary Dean of the English Engineering Faculty at the Donetsk State Technical University (DonSTU) in the Ukraine in 1995.

Professor Pudlowski is a Fellow of the Institution of Engineers, Australia. He is a member of the editorial advisory boards of many international journals. He was the 1<sup>st</sup> Vice-President and Executive Director of the AAEE and the Editor-in-Chief of the AJEE since its inception in 1989 until 1997. Currently he is the Editor-in-Chief of the *Global Journal of Engineering Education*, and is the Foundation Secretary of the International Liaison Group for Engineering Education (ILG-EE).

Professor Pudlowski has chaired and organised several international conferences and meetings. He received the inaugural AAEE Medal for Distinguished Contributions to Engineering Education (Australasia) in 1991 and was awarded the Order of the Egyptian Syndicate of Engineers for *Contributions to the Development of Engineering Education on both National and International Levels* in 1994.

In June 1996, Professor Pudlowski received an honorary doctorate from the Donetsk State Technical University in the Ukraine in recognition of his contributions to international engineering education, and in July 1998, he was awarded an honorary Doctorate of Technology from Glasgow Caledonian University, Glasgow, Scotland, United Kingdom. In 1997, he was elected a member of the Ukrainian Academy of Engineering Sciences.

## ***4<sup>th</sup> Baltic Region Seminar on Engineering Education: Seminar Proceedings***

edited by Zenon J. Pudlowski & Hans Peter Jensen

The *4<sup>th</sup> Baltic Region Seminar on Engineering Education* was hosted by the Technical University of Denmark (DTU) in Lyngby, Copenhagen, Denmark, between 1 and 3 September 2000. The DTU is widely regarded as a leading force in the modernisation of engineering education in Europe and beyond.

This Seminar series has a firm set of resolute objectives: to bring together educators, primarily from the Baltic Region, to continue and expand on debates about common problems and challenges in engineering and technology education; to exchange views on the need for innovation in engineering and technology education; and to stimulate the links, collaboration and friendships already established in the region.

Thirty-eight papers from senior academics representing 15 countries worldwide are in this set of Proceedings, including the three opening addresses. The focus of the Seminar papers covers such diverse and relevant issues as:

- Important questions of engineering education
- New trends and recent developments in engineering education
- Quality improvement in engineering education
- Innovation and alternatives in engineering education
- Course development in engineering education
- Learning strategies in engineering education

As with all UICEE publications, the papers in this collection were subject to a formal peer review process, and should ensure the future value of these Proceedings for the Baltic region and internationally.

To purchase a copy of the Congress Proceedings, a cheque for \$A70 (+ \$A10 for postage within Australia, and \$A20 for overseas postage) should be made payable to Monash University - UICEE, and sent to: Administrative Officer, UICEE, Faculty of Engineering, Monash University, Clayton, Victoria 3800, Australia.  
Tel: +61 3 990-54977 Fax: +61 3 990-51547