The question of whether or not design can be considered research has perplexed schools of architecture ever since they were first introduced into universities. It was at the center of the Oxbridge union debates in the early 1900s. It formed one of the cornerstones of the Oxford conference on education organized by the RIBA in 1958 and came under scrutiny again in the UK with the introduction of the Research Assessment Exercise (RAE) in 1992. While the arguments both for and against are considerable,1 "in order to understand the questions and the possibilities of architectural research and to respond to the difficulties that confront us now, we have to have a model which acknowledges what schools of architecture really are, and could be, and then work with that".2

Drawing on professionally oriented research models, such as qualitative ‘clinical research’, from Medicine and the Health Sciences - where the processes of exploration, observation, investigation, recording and communication are conducted in-situ by the ‘practitioner-as-researcher’3 - the following paper outlines an initiative introduced in 1999, referred to as the ‘Urban Heart Surgery’.4 The program actively integrates students entering their second degree program into a studio based design research culture and allows them to engage in critical discourse by working on high profile strategic design projects in three areas significant to Victoria’s future growth: Metropolitan Urbanism, Urbanism on the Periphery, and Regional Urbanism.
With a growing core of industrial and community based partnerships, including: four regional councils (Bendigo, Ballarat, Geelong and Warrnambool) and three metropolitan municipalities (Melbourne City, Port Phillip and Wyndham), the forum actively facilitates a graduate/practice research agenda through the ARC linkage grant program.
INTRODUCTION
The question of whether or not design can be considered research has perplexed schools of architecture since they were first introduced into universities. It was at the center of the Oxbridge union debates in the early 1900s. It formed one of the corner stones of the Oxford conference on education organized by the RIBA in 1958 and came under scrutiny again in the UK with the introduction of the Research Assessment Exercise (RAE) in 1992. While the arguments both for and against are considerable, “in order to understand the questions and the possibilities of architectural research and to respond to the difficulties that confront us now, we have to have a model which acknowledges what schools of architecture really are, and could be, and then work with that”.

Recognizing the pressure of current UK government policy “to make the two final years of the five year course more definitively post graduate…” Peter Blundell Jones, Alan Williams and Jo Lintonbon at the School of Architectural Studies, Sheffield University, followed the lead of John Tuomey and Shelley McNamara from University College, Dublin, to incorporate “…studio teaching with real research on the city and its history”. The vehicle selected for this initiative resulted in the development of a five-week urban context studies project involving all students enrolled in the upper school years. Utilizing ordinance survey maps, the studios combine to develop 1:500 scale models of various UK county centers. The first of the projects worked with the 1889 and 1903 base plans of Sheffield to build an accurate built-form representation of the city as it existed in 1900.

Around the same time that Sheffield commenced the history studio program, the School of Architecture and Building, Deakin University, began developing an integrated design research forum. Referred to as the ‘Urban Heart Surgery’, the
program borrowed from Professor Dean Hawkes’s notion of “speculative teaching … where studio work is collected over a period of time and then represented in a way that it contributes to the development of a discourse”. However rather than constituting a post rationalization of a given body of work, the unit chair of UrbanHeart believed, that if the student cohort were deployed effectively and an element of rigor was applied to coordinating the design program, the studio system could offer an excellent means for explorative and innovative thinking. Hence, drawing on professionally oriented research models, such as ‘clinical research’, from Medicine and the Health Sciences - where the processes of observation, investigation and exploration are conducted in-situ by the ‘practitioner-as-researcher’ 11 - a more directed approach was adopted. This not only addressed similar analytical themes to the Sheffield and Dublin programs, but also included a strong contemporary urban synthesis component. The following paper outlines the Deakin initiative, which contributes fourth year studio for fourteen weeks of the academic year, to assisting local governments in both metropolitan and regional areas to enhancing strategic vision making in their municipalities.

‘URBANHEART’©

UrbanHeart is an urban design forum which integrates students entering their second degree program into a studio based design research culture and allows them to engage in critical discourse by working on high profile strategic design projects in three areas significant to Victoria’s future development: Metropolitan Urbanism, Urbanism on the Periphery; and Regional Urbanism.

Working with contemporary, regional and metropolitan issues, the aim of the program is to identify and analyze various factors that make up a precinct’s existing conditions, and to develop a range of generic planning strategies and design proposals that address a set of predetermined issues and parameters. Developed with local planning authorities prior to the commencement of the semester, these issues often involve the consolidation of suburban sprawl, the resolution of areas of discontinuity, or the development of options for stimulating urban renewal. Since the amalgamation of many smaller authorities in the early 1990s and the need to re-assess the urban-seams of past political boundaries, the second issue is often a key focus for many local governments. With regards to predetermined parameters, the constraints considered usually involve demographic, and socioeconomic issues, such as significant versus limited population growth, or diverse versus narrow socioeconomic profile.
UrbanHeart introduces seven objectives to the students at the start of the semester:

- Develop an understanding of the place of Architecture within the context of the city and become familiar with the preparation of an ‘Urban Design Framework’ (UDF).
- Assist local governments in anticipating change and enhancing the (UDF) brief development process by presenting the studio as a platform for explorative strategic thinking.
- Engender a sense of social value and receptiveness through the community consultation process.
- Understand the current and future requirements of an integrated urban culture and the significance of the regional city in the state of Victoria.
- Establish a forum that breaks down piece-meal development between neighbouring municipalities and to facilitate a landscape of decision-making that stimulates an integrated approach to design within the urban context.
- Enhance community awareness of the architectural profession
- Become familiar with the Building and Construction Industries current action agenda by developing architecture and building through collaborative and inter-disciplinary design/development initiatives

Students are first introduced to urban design as being a multi-disciplinary process involving a wide range of stakeholders both within a municipality and across adjacent precincts. They are also made aware that it not only involves thinking about opportunities and visions at all scales, but in particular, their implications and consequences both now and long term. By treating study areas with varying levels of objectivity the aim of the forum is not to resolve a ‘finite’, ‘optimum’ or ‘ideal’ solution, but, to collectively identify a broad range of opportunities and design worlds.

Since its introduction in 1999, the forum has developed into a successful teaching, research and public/community relations program. It has not only secured an ongoing relationship with various planning authorities, but its core of industrial partnerships has expanded to include four regional councils (Bendigo, Ballarat, Geelong and Warrnambool), three metropolitan municipalities (Melbourne City, Port Phillip and Wyndham) and close links with various branches of the state government.

The program receives significant media coverage on a regular basis, exposure to a large number of building developers and architectural firms, and students have had the opportunity to present their strategies to state government at a ministerial level on a number of occasions.
TEACHING AND DELIVERY OF THE UNIT

Involving representatives from the profession, state government and local planning authorities in a conference style method of course delivery, students are provided with a large body of knowledge at the early stages of the program. Students conduct their project work in teams of three, referred to as design collaboratives. Following a two-week period of preliminary research, involving site/precinct investigation, context analysis and SWOT assessment, tutorial groups generate a large range of ideas and “what if?” scenarios within a think-tank environment. Working within a set of constructs, based on socio economic and demographic projections, ideas are pooled across the whole studio and classed within a matrix of permutations. Each design collaborative adopts one of the permutations and resolves their respective strategy into a highly developed proposal.

The research forum differs from a conventional studio in both program structure and method of tutoring. Many conventional studios operate largely on an ad-hoc principal. While students are allowed to pursue individual initiatives irrespective of their peers, convergence of ideas within a conventional cohort often leaves significant gaps in alternative design solutions. UrbanHeart attempts to counter this deficiency by introducing students to a logic of ‘design worlds’. By investigating a large range of design options and, understanding the implications and consequences of such options, all students become familiar with a more extensive set of outcomes and problem solving abilities.

The work developed in each research forum is digitally captured and deposited in an on-line web based repository. Operating as a teaching, research and public interface resource, the repository is utilized by students, the community, and state and local government planning authorities.

TAKING ARCHITECTURE AND URBAN DESIGN TO THE COMMUNITY

The ability of Local governments to explore strategic planning options is severely limited in time, money, and resources. In the process of attempting to help fill this gap, UrbanHeart has developed into a platform where metropolitan and regional municipalities are, for a brief moment, able to engage in positive discourse between members of the architectural profession and construction industry; local communities; and both state and local government. This is executed at two levels: first within the studio through interim and final review sessions; and via the installation of a number of public exhibitions.
The composition of each review panel consists of a mix of discipline groups, including: architects, planners, councillors, landscape designers and community representatives. With the students and their proposals acting as facilitators, the review sessions become a two-way feedback and critique process. While students are able to gauge the competence of their work, many of the proposals act as yardstick for the review panels to re-assess municipal and council objectives. All submissions consist of on-ground visualisations that enable the cross discipline panels to engage in discussion, which considers the interface between architecture and the city.

Often enhancing a community consultation process, a selection of project work is exhibited in a local gallery or town hall at the conclusion of the studio. The exhibitions inform the public with regards to the vital role which architects can play in moulding their built environment and councils are able to utilise the work in testing community response to both the type and degree of change which their community is willing to embrace.

CONTRIBUTION TO RESEARCH
Research outcomes directly relating to the studio operate on two levels, non-funded and funded.

The non-funded initiatives are, by and large, the direct result of the studio program. In other words, the ability of a cohort of students and tutors to impose a degree of rigour on the process of design exploration and investigation, and to formalise and delegate the resolution of a number of outcomes within a range of quantifiable permutations. When presented in a format that addresses a series of problems within a given set of parameters, the projects stand as body of sound investigative work. This can be disseminated though hard copy journal publications, public exhibitions or online repositories, and can also act as a primer for further investigation by graduate research students at honours and masters levels.

By imposing a comparatively ‘clinical’ approach to the studio, and directly tying the project work with the strategic planning objectives of local governments, critical discourse, resulting from the review sessions and community feedback, often leads to the distillation of more generic issues. These are either current, or forecasted to impact on the community and profession in the mid to long-term future. Hence problems, relating to questions of demography, future infrastructure needs, and the quality of the built environment become the drivers of the UrbanHeart design research group in forming partnerships with other professional and community based organizations. These partnerships inturn become the basis on which we are able to
facilitate specialised funded research with organisations such as the Australian Research Council.12

CONCLUSION

While many tutors prefer an ad hoc and loose approach to studio teaching/supervision as opposed to a more collaborative and directed structure: the vision-benefits to local government authorities; the applied teaching benefits to students who take part in the development of a diverse range of proposals; and the research outcomes from addressing current and forecasted urban issues, are significant.

It would probably be inappropriate to activate all studios along such lines. Yet, introducing students in the early stages of the upper degree to a design research culture based on exploratory investigative principles and critical discourse, appears to offer a range of generic skills for developing a more informed and “definitively post-graduate” design based intuition.

PUBLIC EXHIBITIONS


See - http://www.urbanheart.net (or) http://www.ab.deakin.edu.au/information/exhibitions

1 Yeomans, ‘Can Design be Called Research’, Architecture Research Quarterly No1/Vol 1, 1995
3 Chenail, Maione, ‘Sensemaking in Clinical Qualitative Research’, The Qualitative Report, No 1/ Vol 3, 1997
6 Yeomans, ‘Can Design be Called Research’, Architecture Research Quarterly No1/Vol 1, 1995


12 Toussaint C, Rollo J, ‘Developing Benchmarks to Determine both Relative and Sustainable Levels of Infrastructure for the Aged within Regional Victoria’, *ANZAScA 36th Australian and New Zealand Architectural Science Association* (1-4 may 2002)