

## **Abstracts in category 3: 'Validation'**

### **Plenary presentations**

**ABSTRACT ID: 11**

**Author: Kathleen Watt**

**Title:**

**Reconciling Creativity and Research: Formal Research Training as a Foundation for Architectural Design Doctorates**

In the arena of knowledge production, which is the primary goal of doctoral research, architectural design lags behind other disciplines. An important question raised at this conference is, why hasn't architectural design been recognized as a legitimate form of research compared with methods of investigation undertaken in other fields? This paper maintains that the answer to this question lies in the very nature of architectural education itself, which is based on mystifying the design process and socializing students in how to think and behave like "creative" individuals. To correct this problem the paper will argue that we must stop treating architectural design as mere "creative activity", and start viewing it as "research activity" that will benefit from formal training in research skills and techniques comparable to other academic subjects.

A recent study in the UK identified some common problems relating to practice-based research degrees in design disciplines, including difficulties with balancing creative and academic requirements and problems with presenting evidence. These epitomize some of the significant differences between doctoral research in architectural design and research in other spheres. Doctoral researchers in all disciplines are required to systematically assemble evidence to demonstrate how they arrive at their original contributions to knowledge. But this creates an overwhelming obstacle for many architects who find it difficult to explain their creative practices or disclose their activities to a critical academic audience.

Architecture schools rarely encourage students to engage in appropriate processes and procedures that lead to the production of knowledge. Instead, architectural education is concerned with socializing students into "architectural culture". This culture is acquired in the studio environment where architectural knowledge is always implied, but seldom communicated explicitly. The architectural studio is thus a "charismatic" as opposed to a "scholastic" mode of professional socialization, aimed at producing creative designers with embodied cultural capital rather than producing knowledge. The consequence of this approach is that many students fear or mistrust traditional intellectual or academic activities and believe that research is irrelevant for architectural practitioners.

Schools of architecture in the UK are now expected to generate research funding and conform to academic norms and values. In response, the Faculty of Art, Architecture and Design at the University of Lincoln initiated a programme of formal research preparation for practice-based doctoral students as part of a wider UK initiative to standardise research training. The aim of the programme is to situate creative design processes within a framework of accepted analytical and communicative practices, thereby validating architectural design as "research activity". The programme is structured according to a common research model that corresponds notionally to phases in the research process. But whilst complying with established precedents and guidelines, the curriculum differs somewhat from research training in other disciplines. The emphasis is on contextualising the designer's research interests, establishing a critical framework for project work, and reflecting upon and recording research activity. Students are encouraged to explore and develop various modes of communication – visual, written and verbal - to chart the connections between critical, investigative activity and creative endeavour. It is hoped that by engaging in systematic, documented, reflective practice students will recognise that research itself is a creative process and that "creative activity" and "research activity" can be mutually supportive and productive pursuits.

**ABSTRACT ID: 23**

**Author: Louise Wright and Shane Murray**

**Title:**

I am a practicing Architect who has returned to the academy to undertake doctoral research in Architecture.

My PhD forms part of a large research project, funded by the Australian Government, which is investigating new housing typologies for Australia's Baby Boomers as they enter retirement. Significantly this is one of the first occasions where a design based methodology proposed for the conduct of such research has received Australian Research Council funding.

My PhD attempts to find a position between practice and the academy which utilises both traditional forms of research, particularly from the social sciences, and also utilises the knowledge embodied in the process of undertaking architectural design. Significant for the concerns of this conference, my paper will reveal through an account of my PhD how these two modes of research, one conventional and the other still rarely recognised, have been integrated in this novel project.

Claims for a multidisciplinary approach to research reverberate throughout the academic community. Frequently, such claims in fact reveal the continuing tyranny of science based disciplinary structures where multidisciplinary partners are either mute observers in the research process or window dressers of its inevitable outcomes. In other instances this multidisciplinary approach delivers outcomes which are blandly indeterminate because the specific disciplinary intensity of each of the participants is blunted by the so called integrative process. Architectural design is particularly susceptible to these forms of dilution in the academic context.

In my PhD, architectural design or architectural thinking is placed in an equivalent and often leading position throughout my research. This gives an equivalent authority to architectural thinking and makes architectural design more recognizable and more evident alongside other methods of investigation. It exposes and vindicates design knowledge beyond the specialisation of architectural practice. The outcome of this methodology also reveals the potential of design to deal with complex issues which are not immediately obvious as its normal domain. My project places architectural design as an integral part of the consideration of many issues raised by non-design disciplines and shows the potential of architectural design to intervene earlier as a method of problem solving rather than as an outcome of a set of constraints.

The practice of architectural design entails significant embodied disciplinary knowledge. However, unlike conventional academic disciplines this knowledge often remains unarticulated and is largely only available to those who undertake the process of architectural design. While some would argue that such articulation is redundant because architects see and understand this knowledge through undertaking practice; this is a position that continues to obscure architecture's contribution to knowledge because such a form of understanding is not communicable. To develop and contribute architecture needs an account of its embodied research and knowledge that distinguishes it from other disciplinary structures within the academy and equally from the various lifestyle and marketing agencies that prevail in the built environment. Most significantly this articulation is necessary because in order to make a contribution to the very real and difficult problems of our contemporary built environment a new type of dialogue with all those involved in its future will be required: to be involved architecture will require a more substantial account of what it can contribute.

In my presentation I will illustrate how my research has dealt with each of the issues outlined above. I will demonstrate how architectural design can contribute to socio economic and demographic research by connecting its abstract data to real physical and spatial consequences. I will subsequently demonstrate the significant embodied knowledge that is contained in much of historical and contemporary architectural practice and demonstrate how this may be revealed in a communicable manner. I will then illustrate how this embodied knowledge together with socio economic data which has been given actual consequences through a design process can be integrated into new design propositions.

In my conclusion I will describe the consequences of such a process and importantly define its limits. I will finish with the speculation that design thinking will always contain elements and processes that will elude our conception. The recognition of this fact and perhaps the understanding of where this limit may lie is an important component of an understanding of architectural knowledge.

**ABSTRACT ID: 45**

**Author: Marco Trisciuglio and Michela Barosio**

**Title:**

**THE AWARE ARCHITECT**

The paper that we are proposing will be structured as a philosophical dialogue. As Gian Battista Piranesi, in 1765 in his *Parere sull'Architettura*, makes up a confrontation between the young pupil of Laugier and his old academy's teacher, in the same way we can imagine the debate between a young PhD doctor and a renowned practitioner. Through this dialogue we will investigate the role of the disciplinary research in the architectural design, especially looking for the continuity and the discontinuity between them.

In the second post-world war period, Italian situation can be considered paradigmatic for the place that the architectural culture takes within the society. The university, where practicing architects such as Mario Ridolfi, Ernesto Nathan Rogers and Saverio Muratori were teaching, was trying to re-organise knowledge in order to make a confrontation with the experience of the modern movement (Rogers) and to solve social (Ridolfi) and civil (Muratori) problems. Professional world,

even if busy by the rapid reconstruction of the cities, was in touch with a cultural high quality press, which popularized the exits the re-organisation of the knowledge. In fact reviews as “Casabella – Continuità” deeply affected the practitioners work. Thus architects and critics were working to involve people in architectural themes, like Bruno Zevi that tried to do it in 1949 with his book “*Sapere vedere l’architettura*” (To know how to see architecture).

Fifty years later, the researches of the architectural faculties focus on what Edoardo Benvenuto called the “disciplinary elsewhere”, on the *entourage* of Architecture such as its sociological, economical, anthropological, statistical and computer sciences implications. Practitioners are nowadays more and more busy in managing the project that is getting always more complex in its bureaucratic, according to law and technological aspects but, at the same time, they are showing a growing intent of self artistic expression. This *Kunstwollen* is enhanced by the press and by the architectural exhibitions. But nevertheless the spread of the architectural cultural is not enough to develop the research and the interest in the themes proper to architecture

If we presume that the themes proper to architecture are related to the field of composition, of conception, this could also be the field of application of the “doctorate in architecture”. In this case we should investigate the theories and the techniques of architectural composition as the heart of the architectural project. Investigate the theories means to retrace the debates upon the idea of type, the idea of language and the idea of style, while studying the techniques will drive us to redraw abaci of architectural elements and to examine closely their syntax as the proper work of the architect.

A doctorate based on those themes could link the world of the academic research and the one of the practitioners. It is possible to conceive the project as a research only if the practitioner acts a reflection upon the exits of his work, upon his working methods and their transmissibility, placing himself in the frame of the contemporary architectural landscape but also in the frame of the disciplinary tradition. These conditions are possible by a mutual acknowledgement (between the research world and the practice world) about the central role of the composition inside the architectural project and its practice, in a general frame more and more complex, articulated and distracting.

The first result of this acknowledgement could be a doctorate forming architects specialized on reflecting upon exits and methods of the formal conception of the architectures so that they can elevate their formal and composing quality. Those professional figures would be destined not only to the academic world, to the press, to the university and to the research institutions, but also, and even more, they would design those architecture that have a big impact on cities and landscapes and would join technical services of public administrations that are supposed to manage and to ordain them.

## **ABSTRACT ID: 25**

**Author: Alfonso Corona-Martinez and Libertad Vigo**

**Title:**

**“Compositional Thinking *within* Architecture for a Doctorate”**

### **Introduction**

Marco Frascari has written:

“If our quest is to understand architecture by thinking *within* architecture rather than thinking *about* architecture we have to understand the workings of the mechanism that drives compositional thinking” (in Corona-Martinez A., *The Architectural Project*, 2003, Foreword)

It is generally agreed that the goal of a doctorate is to advance knowledge.

Whether this knowledge is to be scientific in the narrow sense has been discussed by Perez- Oyarzun (1993):

...“the main nucleus of architectonic activity, design itself, is still not regarded as research. Is it possible to consider the design activity simultaneously as a subject of research and a medium of research?... ..Many professionals and scholars affirm that any architectural project implies an effort of research; others reject this idea, considering that the design activity is neither rigorous nor universal enough as to be considered research “*sensu stricto*”. If we wish to go beyond sterile controversies which exclude one kind of research in favor of other more restricted activities, perhaps the clue is to consider research simply as the production of new knowledge, even to widen the notion of knowledge itself” .(“The Valparaiso School”, in *Harvard Architecture Review* 9, 1993, p.82-100)

A project poses a new solution to a problem stated more or less clearly (Kubler,G.1962,Schön,D.1985,1987);unless one believes design in architecture consists simply in applying known typical solutions to existing problems, with only slight adaptations forced by site and other contextual data.

We hold that the problem becomes more clear and its solutions innovative through the process of design, the design begins as creating a solution for a previous problem but it becomes more clearly stated and its solution shows more about the conditions than was previously known; it is an experience that can be incorporated in the solution of future problems of a similar type.

Is it so far from the accepted viewpoints on the advancement of science? (Broadbent, G.H. 1987, Kuhn, T., 1962)

To design successfully the architect obviously applies knowledge.

The crux of the matter is the difficulty in defining successfully what this knowledge consists of.

This knowledge can be transmitted, whether by the original apprenticeship system until the 1750s, and later by special types of learning in Schools. This teaching/ learning is based on the production of new designs by students under a more or less strict guidance of trained architects.

Design knowledge therefore exists, and has been transmitted for generations. It is called by Schön "reflection in action". Reflection about the design procedures is thus a valid and legitimate kind of knowledge and it can be evaluated, advanced, parts of it discarded and supplanted by other procedures not yet discredited by failures.

The next question is, how should architectural work be formatted to prove to third parties that it is a kind of research?

The simple presentation of the representations of a built work as devised for an architectural publication-competition would not be enough.

In fact, it is not perhaps a matter of how to represent the works of architecture - this can not go too far from accepted systems - but one of how to read these works as steps in the constitution of an operational Theory of Architecture.

**The case of Peter Eisenman is interesting because all his work has been accompanied by a dense theoretical writing.**

This, however, is not of the kind we are used to -explanations about context and limitations- it goes beyond the merely descriptive to treat philosophical subjects. The author's ambition seems to be nothing less than a complete new foundation for Architecture.

He tries to show his work not as reflecting conditions, but as a part of an autonomous quest for Architecture. In this sense, we dare call his production as a continuing research - an ongoing Unthinkable Doctorate.

A point of interest is Eisenman's insistence in presenting the results of his design work as inevitable consequences of compositive mechanisms which, in turn, change over time.

Eisenman's production, however, lacks one of the traits we consider necessary for a proper presentation of architectural work: the follow-up of the design as a building in the world, used by real people in contextual reality. Eisenman's extreme attitude as an artist-architect, although respectable in itself, cannot be accepted as a general positioning for all doctorate candidates.

Our conclusions will be that:

Practising architects who want to submit their work for an Unthinkable Doctorate should display a knowledge of their own design procedures, as a variant of more general methods called by Frascari "the mechanism that drives compositional thinking".

They should also include in the presentation of their works the post-occupancy report -they must show they can learn from experience as architects and not simply display to us their evolution as artists.

## Round-table presentations

**ABSTRACT ID: 43**

**Author: Martin van den Toorn**

**Title:**

**TOWARDS A THEORY OF LANDSCAPE ARCHITECTURE**

**Theory and practice of landscape architecture in a delta landscape**

### • Abstract

This paper is set up around experiences with my own research in landscape architecture that should lead to a doctorate in landscape architecture. I have never practiced and I have been working on it for more than ten years next to my regular work in teaching and research. The paper is set up along three main parts. In the first part I investigate the problem of the relation between theory and practice in relation to research in landscape architecture. It deals mainly with the different

types of knowledge in design disciplines; I am making a distinction between design theories and architectural theories. Design theories focus on practical application in a day to day practice that enables to make approaches and methodology in design more transparent. The second part gives a short overview of my own research. The search for what a theory in a design discipline should be in relation to the state of the art in theory now. Based on existing literature in theory of science, in architecture and in landscape architecture, I come to four different types of theories in design disciplines. Positive or what Lynch calls 'functional theories', normative theories, critical theories. The third part is a critical reaction towards some of the statements in the Conference announcements. I fully agree with the need for 'the development of a specific architectural body of knowledge as opposed to one that is based on one from 'neighbouring disciplines' Not that the second one is not needed, on the contrary, but there are already a series of examples of that type and more will follow. What is lagging behind — not lacking at least not in architecture — is the first type. The difficulties in setting up conditions for developing that type of knowledge in (landscape)architecture should not be underestimated but the need is clear. What I am particularly critical about is the statement that practicing architects themselves should develop theoretical knowledge on the basis of their own work. This is not only very complicated from a scientific the unthinkable doctorate 2005 point of view but it is probably also not the most interesting type of knowledge. If practicing architects would like to engage in scientific research, then it should be more interesting for them to develop a critical theory toward the work of others as a basis for developing and sharpening their own — often implicit — design theory. Outsiders and professional researchers are better fit to develop theoretical knowledge on the basis of work of practitioners than the practitioners themselves.

**Abstract ID: f**

**Name: Mayka García Hipola**

**Title:**

**How a PhD RESEARCH in land-sCape has changed a professional WORK philosophy about land-sPace**

The author of this paper is Mayka García Hípola. She is a Studio Teacher at Madrid School of Architecture and she holds a PhD Research Grant from Madrid's Polytechnical University. She also works as a practitioner in her own office. She understands architecture as a complex disciplinary science and the work done in PhD courses at the university should seek to close the gap between teachers, practitioners, and researchers. In this conference, she would try to prove how can a PhD research be practical and how can it help to improve the practical work producing a specifically architectural philosophy, from within architecture. The Academy and the Profession are both indispensable to the discipline.

At the conference she will show a couple of examples of PhD research and real practical work that are related and wrapped in a theoretical philosophy obtained in the doctoral course that have helped to furnish tools to develop them. The goal is to answer the question of how can doctoral research help architects who practice. The doctoral research has considerably aid the development of the design work of the author as we will see in the second project presented. It deals the previous experience and applies it to practice.



Fig 1: PhD Research about landscape. Villajoyosa, Alicante(Spain)

The first work presented started as a PhD research about land-art experiences done in the 60's and how they could be applied today to our built environment. Finally an **Environmental Park** was proposed as a result of the research applied to a mountain in Spain where recycling techniques were combined with artistic and environmental experiments. This kind of research is not only practical but it also helps to educate the community improving an area that was in bad shape, thanks to a PhD course that has served as a link that offered the university as a forum of research to the local authorities.

On the other hand this works has helped to prove that the doctoral work doesn't have to be the "narrowly professional", or "entirely academic". It can be something in between. In the some way that the research encourages to break the boundaries between landscape and architecture, **PhDesign** in Architecture can break those between the strictly "professional" and the strictly "academic". "Mode 1" and "Mode 2" of research can be bind together in a new "Mode 3"



Fig. 2 Professional Work. Competition by invitation. Park in Puente Génave, Jaén (Spain)

The second work presented is a **Topographical Park** that takes advantage of the experience developed in the PhD classes and works as a link between landscape and architecture and recycles and protects the natural species of the area.

We don't have to choose between discipline and science. In this kind of doctorate the architect needs to "know about" to get his-her own "knowledge". I would say that this kind of doctorate should be mandatory to any professional to create his-her own philosophy in the field of "architecting", in order to avoid speculative architectural disasters that live in our cities... Or at least it should be mandatory for studio teachers....

Why can not the design work of an architect, formalized and formatted by him-herself, be recognized as a doctorate if it helps to improve a community though its built work or teaching experiences? Can we assume that SMLXL by Rem Koolhaas could have been a great PhD thesis? This will allow a better way of "thinking through architecture", both for the author and for our intellectual community. There has to be more research in practical work, if not we only have theory as such, theory of the past without knowing how to apply it in the present moment.

**ABSTRACT ID: 28**

**Author: Florinel Radu**

**Title:**

**Imagine the unthinkable**

***for an emancipation of the doctorate in architecture from the "classical" scientific model***

This paper will address the main themes of the colloquium: the schism profession – academy, the dismissal of architectural design as a method of investigation, the re-definition of the doctorate in architectural terms.

The schism profession – academy concerning the doctorate is mainly due to the non-critical adoption of a “classical” scientific model:

- it is a reflection of the schism that exists also in sciences – between the fundamental and the applied level (Schön / Fell & Russel);
- the doctorate in architecture illustrates more a problem of academic legitimization than an epistemological one; in architecture, academia faces a double difficulty, it doesn't have the leading role in respect to profession and it is considered as an “academic misfit” (Cunningham / Schön) with a fragile institutional status; the explanation should be searched in the difference between the knowledge production system in architecture - individualistic, heuristic, reticular, creative, abductive (Rowe) - and the scientific ones - socialized, articulated, formalized, hierarchical;
- academia inherits the still dominant epistemological paradigm of higher-education system built around the notion of “knowledge-state”, while profession is involved with “knowledge-process” (Žarnić); the separation is emphasized by the lack of theoretical consensus characterizing both of them.

The dismissal of architectural design as a method of investigation is a consequence of its main attributes - non-scientific, informal, implicit, marginal – and to its social and professional contexts:

- architectural design (seen as a set of routines) lacks credibility when it is compared by Academia and by Scientific System with vulgarised scientific methods;
- architectural design, even when it incorporates genuine research aspects, remains mainly informal and implicit as “tacit knowledge”; this form of knowledge, difficult to decrypt, has recently acquired attention in scientific world too (Strasser);
- the architectural culture is opaque in respect to the creative processes because architects discredit communication (immersed into professional competition - Thornberg) and society is not interested in unveiling it (paying for a result not for a research).

These two phenomenon are related. Despite the fact that a considerable amount of research *on* architectural design and *on* design in general revealed its potential as a “genuine method of investigation”, the concerned institutions (Academia and Scientific System) did not “adopt” it, closing the vicious circle. A promising break could be the re-definition of the doctorate in architecture, an opportunity to understand it as a means of communication within professionals and non-professionals.

c. My hypothesis for *PhDesign* relies on the understanding of the notion of knowledge-production as a communication process (Verbeke). In this sense, knowledge is created through conversation (various types of interaction - Whitney-Smith), the participants searching for meaning through a dialogue:

- “**interface doctorate**” aiming at the insertion of architecture in the wider cultural discourses. Here we can recuperate the traditional scientific forms, if they include an explicit effort to make relations between architecture and other fields.
- “**didactic doctorate**” questioning the learning processes in architecture (seen as pedagogical experiences, see below). It can also contribute to the development of pedagogical capacities for someone who enters Academia.
- “**self-reflective doctorate**” seen as “shared experience” in architectural design, as moments of “conversation” between professionals. In this view, practice is considered as a primary element in knowledge creation (Fell & Russel). I have identified three forms: 1. *the questioning design*, a research that accepts the “*real milieu*” as a laboratory (against the prejudices of an hierarchy between “know” and “know-how”); it is a never complete attempt to explicit architectural creation ; I compare it with some research in pedagogy that tries to articulate theory and practice (the theorizing practitioner – Houssaye); 2. *the simulated design* is the exploration of architectural themes within a virtual context, appropriately defined by the researcher / designer; 3. *the visionary design* advances new questions and a new context of interpretation. It is the most open form of architectural exploration, closer to artistic research than to the scientific one.

My recourse to certain ideas - “self-reflexivity” (Holtorf), “knowledge-process”, “conversation”, etc - is only temporary: it is not an attempt to attach (once more) architecture (thinking and doing) to a specific trend in philosophical or epistemological ideas. On the contrary, they serve an effort of emancipation, of turning round the traditional determinism that considers architectural thinking as a category of a larger (scientifically or artistically) defined vision. The professional culture of architects is nourished from multiple sources, but it has its own identity. It is for us to re-define it and to transform it into an active culture. It is a matter of change of attitude, a still-to-build phase of “self-consciousness”. I think this is the real challenge and not an “ideal” formalization of doctorate in architecture, which is a secondary matter.