

design activism

RESEARCH THROUGH DESIGN BY ACTION

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C.T. ARCHITECTS RESEARCH

Introduction

Recent trends in the scholarship of architecture indicate that there is a need for greater philosophical analysis and reflection when considering the issues arising from turning architectural schoolwork into real-world laboratories. What is needed is a conceptual framework for a new discourse concerning architectural pedagogy. This work presents such a reflection towards a new framework for an educational architectural-research practice. An approach rooted in the acceptance of architecture as a profession that has fiduciary responsibilities for learners and for students as subjects of architectural research.

The epistemological field of architecture, however, is not one that is easily comprehended or even generally accepted. Not even by experts working within it. It is a

field where various forms of knowledge meet and where their specific art and relations are investigated through a rich body of work. Often, however, it leads to a dichotomous state wherein competing standpoints are voiced, (standpoints such as e.g. representatives for an artistic or a scientific approach to the subject) leading most of the time to unproductive conflicts. This paper therefore intentionally mixes genres. It is autobiographical; it is anecdotal; and in its attempts to synthesis and conceptualise, it is theoretical. In its departure from 'academic' form, some readers may regard it as 'heretical' rather than theoretical. Our purpose is to share our learning journey of the past ten years to an audience of architecture-teachers who are continually seeking to understand and perfect the art and craft of their profession.

The most significant thing we've learned on our travels throughout both the research and practice domains of architecture is that significant learning for any individual integrates personal, experiential knowledge, imagination, information,... and action.

Classroom research

One of the most significant recent trends in Belgian architectural schools has been the increased emphasis on applied research output. In contrast with international institutions such as the Architectural Association (London, UK), Berlage Institute (Rotterdam, NL) or Harvard (Cambridge, USA), geared towards the goal of integrating professional education with the academic pursuits of a research university while

addressing emerging topics of common interest, Belgian architectural institutions have always been focused primarily on professional teaching. Over the past decade, this focus on effective pedagogy has evolved into a growing emphasis on pedagogical and professional research. Architectural faculties across the country are forming centres and programs dedicated to the analysis and development of effective research practice. Yet in the midst of these developments, the changing relationships between teaching and research have generated a new set of significant issues which must be addressed if this trend towards different design teaching is to be sustained, because the increasing emphasis on this new scholarship of architectural teaching and learning has several important implications:

- First, it secures the central role of the faculty and administrators in the continuing attempts to improve the efficacy of architectural practice.
- Second, it demonstrates the unique relationship between good teaching and effective research. This is in itself a situation worthy of careful scrutiny for the implications related to issues involving equity and fairness.

Be this as it may, there is to be noted that this obligation for scholarly research need not be at odds with teaching responsibilities. Some have recently argued that this growing emphasis on research output provides an invaluable opportunity for faculty members to combine their research interests and educational responsibilities. This results in enhanced research opportunities as well as more effective teaching. An increased recognition of the vital role of research in the architectural education is an important step towards enhancing the value of the educational experiences of both students and faculty. But in the midst of this trend, it is important to recognize that there are also some serious questions and issues faced by the researchers and practitioners involved. These issues include the following questions:

- Is there an inherent obligation to conduct design research within the architectural education?
- How are members of the academy to handle the tensions and conflicts and du-

al demands of conducting research in their academic and pedagogic disciplines?

- How are professionals or specialists who become educators who, in turn, become researchers to handle the issues that arise when design classrooms become laboratories with human subjects?
- How does one address the issue of authorship?

These issues cannot be addressed in a manner that would produce a resolution that is both intellectually satisfying and practically manageable without a consideration of the basic conceptualization of the role of an educator and its incumbent professional responsibilities, most particularly the fiduciary obligations of educators. Such considerations have been few and mostly found in the works of philosophers examining the profession in general. What this calls for then, is the conjoining of those two fairly isolated modes of discourse (research and teaching) that have been fairly well kept apart. Most significant among these growing concerns is the unique set of questions that the narrowing gap between the architectural design studio and architectural research brings, namely that it adds a specific set of design tools to the mix.

Learning through Designing

In architecture and urbanism the act of “designing” (not to be confused with “shaping”) means integrating seemingly opposite intentions as well as a divers set of questions and challenges into a certain three dimensional framework. This is mostly done by translating and manipulating the governing ideas of this framework through a body of sensorial output. Or, at least, in the most conservative understanding of architectural design through a set of visual representations such as drawings, illustrations, diagrams, renderings etc...

This skill of being able to translate ideas and solutions into sensorial data means that research by design, by way of discussion, trial and error and the physical act of drawing,

adds a certain depth of field to the research questions at hand. As, different from exact sciences, there is always more than one design solution, and there is always more than one route towards a viable design option. The act of designing architecture, one could argue, is nothing more than a repeated sequence of informative choice-making whereby the information is drawn from different kinds of knowledge. And if we begin by looking more closely at what these types of knowledge are, it also becomes possible to arrive at a better understanding of how we can bridge the gap between theory and practice. Between research and design. And therefore how both fields can start to inform one another in an educational setting.

Gaining Design Knowledge

In order to begin to understand the relationship between architectural knowledge and practice, we have to compare the history of building to the history of the brain itself. Because architectural design is a cultural and highly artificial act that, today, in our western world is the result of the work and specific competence of architects. In the passing of time, man changed the world from a natural one to a certain degree of artificiality. A world where man can be said to have totally changed the face of the earth. In a way a world constructed by man. Thus it is possible to speculate that the future holds not only the study of natural sciences, but what Herbert Simon calls the science of the artificial. And one of the major fields in this type of science is the field of constructing and building.

Up until the previous century, the vast majority of buildings have been of the type that can be called traditional or popular, or better “vernacular” buildings. Buildings not based on the type of specialist knowledge represented by architects, but knowledge that is passed down through a more general, cultural tradition. It is important that we make this distinction, not because of a value judgement, but because, as Bill Hillier observed, different kinds of buildings derive

from different types of knowledge². And it is namely first when we become conscious of this fundamental difference that we can begin to understand what is specific to designing architecture in our epoch and why this entails special problems.

Vernacular buildings are the product of a slow development of knowledge based on proven experience. Proven solutions with a known outcome are transferred over time with changes being introduced slowly. We thus see great similarities between knowledge of the vernacular building and what we usually call skills or “techne”, that is, knowledge of how one does something³. Today, however, students of architecture can no longer be reliant on receiving these traditional forms of knowledge, developed over generations through the utilisation of a bank of practical knowledge transferred from individual to individual through practical expression. Because architecture today is to so great a degree valued on the basis of its capacity for innovation and the formulation of new solutions. Architectural knowledge, certainly within the walls of an educational setting, is expressed almost in the opposite way compared to the vernacular, namely to be creative rather than derivative. Today we no longer ask of students to accept as given, or to re-state a pattern that has been constructed by someone else. However, only few students think through for themselves the meaning of existing patterns, whether it seems reasonable to them, how it might have been constructed in the first place and so on. These students’ thinking and learning is characterised by trying to make sense of what they are observing or being told. Their thinking (and by extension their design output) is characterised by searching for connectedness and meaning. However, as we said, these students form a very small minority. Most students find themselves lost in the jungle of digital information or remain focussed on repeating and mimicking. Their design studies therefore give little evidence of attempts to find connections with experience nor to make meaning out of relevant data and events. Our experience in observing design workshops like this, and from having been a student in many design studio’s and auditoria ourselves, leads me to believe that some

students learn meaningfully in spite of the teacher. Most others have learned to design in ways which are relatively mindless. They have learned to design in ways which have actually been modelled by teaching strategies rewarded by assessment practices which value ‘the right way to do things’. Yet, these very same teachers lament that students don’t think, don’t estimate, don’t challenge, don’t understand and can’t transfer design strategies from one situation to another. Their conclusion, however, is too often that students need to be taught to think instead of questioning the teaching method itself.

We believe the starting point in encouraging and developing student meaningful thinking must be to design deliberate experiences infused with thinking critically. Because in our view we do not have time to teach design in a way which does not actively engage students in constructing their own meaning, based upon a deep understanding of the questions at hand.

What do we know about thinking, learning and designing which might inform these attempts?

Reviving Critical Thinking

We find ourselves in a time where architectural knowledge is transmitted mainly through an overload of images. And, where practically all greater architectural innovation during the twentieth century was infused by interlinked theories (which functioned to inspire architectural work to take new directions), today theoretically formulated ideas and texts have often become no more than visual slogans. And what is typical for these theories or constructions is the lack of ties to a clear social context. Images from all over the world are collaged together, transferring and applying ideas from one context to another. So how can we revive a sense of critical thinking within architectural and urban design which goes further than the image?

Other than building, the relatively young professional field of design, by definition,

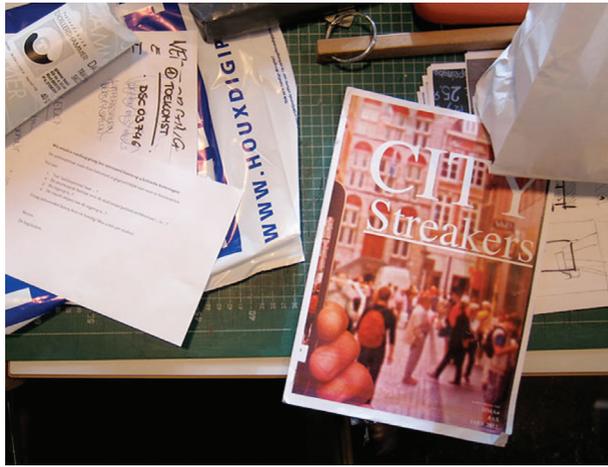
means working on a theoretical level. Inherently the act of designing means working with making innovative choices that do not simply emerge from the cultural context in which they belong, but it also borrows from other contexts or develops solutions along new principles. Thus, different from vernacular building, architectural knowledge today resembles much more what we usually call scientific knowledge or “episteme”. That is, not only does it asks “how” things are done but it also incorporates the question of “why” things are done⁴.

At the same time it is exactly here where the problem arises with design teaching based on this “new” set of architectural knowledge. Because, as we saw, it is a form of knowledge that is proficient at generating new spatial orders or setting existing ones into new contexts. And, for obvious reasons, this creates a lack of an experiential basis for students of architectural design. Making it difficult to predict how the solutions that they (and by extension professional architects) work with will be accepted and function in the social orders in which they are eventually applied. We would like to argue that it is exactly this increasing lack of an experiential basis that stands in the way for students to create a rigid foundation for their thinking and design work.

The meaning of Action

In nature and through our biological process of human learning, we naturally experience the world around us, we reflect upon it, and create mental maps or patterns for making sense out of the bewildering array of stimuli that we face every moment we are alert. In addition we develop skills which enable us to act, to do.

In an attempt to be more explicit about the meaning-making aspect of action in research and design, to construct ideas and concepts out of raw experience, we have found it useful to draw on what is known about the facets of cognitive functioning such as the features of working memory, motor memory, sensorial memory. They all



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serve to enrich our understanding of the nature and process of designing both at a generic level and at the level of individual differences in processing information. Meaningful design involves integration of feeling, experiencing, thinking (analytically as well as intuitively) and acting – integrating our many ways of knowing into the processes that architects actually do and are expected to be good at:

- Firstly, deriving architectural solutions, what Hillier calls the “generative phase”.
- Secondly making predictions about the outcomes of these solutions – the “predictive phase”.

A New Future for Experiential Design Learning

“...learners have immediate concrete experience, involving themselves fully in it and then reflecting on the experience from different perspective’s. From these reflective observations, they engage in abstract conceptualisation, creating generalizations or principles that integrate their observations into sound theories as guides to further action, active ex-

perimentation, testing what they have learned in new more complex situations. The result is another concrete experience, but this time at a more complex level. Thus experiential learning theory is best thought of as a helix, with learners having additional experiences, and then using them as guides to further action at increasing levels of complexity.”

(CLAXTON & MURRELL 1987, P. 5 –26)

Design through direct action and subsequent reflection is nothing new within the field of urbanism or architecture. Urban-architectural design collectives such as Raumlabor, Haus Rucker Co, Urban Catalyst or Exyzt; individuals such as Patrick Bouchain, Yona Friedman or Buckminster Fuller and educational theorists such as John Dewey were already exploring the potential of working at the intersection of art, education, architecture, urban intervention and city planning. However what we were deliberately tapping into while constructing an urban-architectural design workshop called “Citystreakers” was a return to the basic notion of live-action as a means to gain direct experiential knowledge. Because as we have seen before, the architect’s knowledge is still, to a great degree, broad experiential knowledge. This identifies what to do in a specific case.

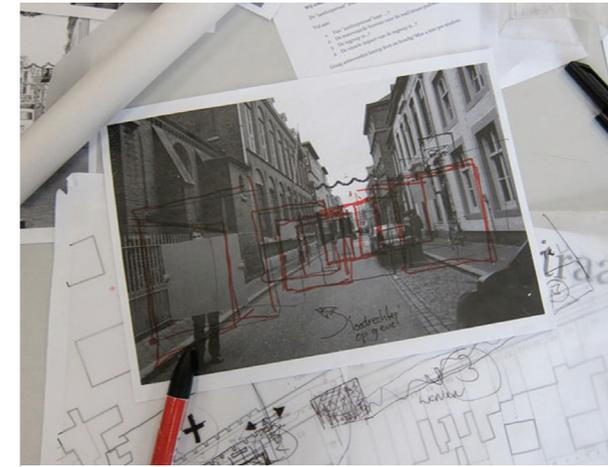
The 60 hour marathon workshop concentrated on learning from the ‘live’ city, the

real city. It was set up to specifically look beyond the predictability of the planned city towards the unpredictability of the experienced city. Building on the theorem that as we experience the city, we mediate physical and social structures that include ever-changing combinations of fixed and flexible variables. It looked at the city’s reality not made up of physical structures with fixed reference points, but as a complex reality that is constantly articulated and activated by the live realm. Realizing in other words that, without the live realm and without situations, there is no city.

Focussing on an interdisciplinary approach to the issues, (as well as architects and urbanists the workshop was lead by a video director, a politician and a philosopher) the students used the method of “live-action-Photoshop” to experiment with blending representation and real space in an attempt to re-spatialise, re-vitalize a potential future for the city. Discussing both the power as well as the inherent dangers of the image as a tool for change.

Each student had to generate its own catalyst for change revealing new potentials for peripheral urban streetlife. Questioning also the role that architecture plays in the making of public space and speculating on the direct relevance to the city itself – in this case Maastricht.

1-7 Impressions of the workshop Citystreakers, Maastricht



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In small groups the challenge was posed how to deal with recently abandoned retail spaces in the urban periphery in favour of renewed central shopping areas. The workshop engaged with it, immersed itself in it, and identified, defined and subsequently invented the variables that influence its physical, social, political and economic contexts. It worked with direct action, video, physical frames, urban conversations, computer models, working drawings, text and animations in order to experiment with and propose, at the architectural and urban scales, composite spatial interventions that could have a direct effect on the reality of the urban condition.

All groups, having completed their attempts at the challenge, then reported back to the city itself reclaiming authorship for a potential future through a single isqm representation. By taking the idea back to the city,

again more discussion happened, more ideas got exchanged and slowly the students got intimate with the city and its users... (fig. 1-7)

Conclusion

In practice we believe we should no longer train students to be merely spatial problem solvers working in God-Mode planning scenario's with program as a given, and working within a strictly outlined situation. Instead we strongly believe in a two fold design training, focussing both on broadening the directly applicable experiential knowledge of students while at the same time developing a strong hunger for scientifically based knowledge through research. Scientific knowledge providing the support

in the form of principles of knowledge when one's own experience of earlier examples no longer suffices to give requisite answers.

Such a development ought in no way to hamper the creative freedom of the architect, but it serves to define the field of possibilities, to provide the architect's creativity precision and strength.

It implicates shift away from the emphasis on form, construction and architectural history towards a dual development of direct experience and scientific research.

This, we believe, is a necessity to be able to promote the architect's competence in a future where Vitruvius' three qualities of firmity, utility, and beauty (that is solidity, usefulness and beauty) are perhaps no longer the architect's main expertises.

Notes

- 1 Marti, E., Kutnowski, M., and Gray, P. (2004). *Toward a Community of Practice*. Community College Journal. April/May. pp. 21-26
- 2 Hillier, B. (1996). *Space is the Machine. A Configurational Theory of Architecture*. Cambridge University Press. pp. 15-53

- 3 Based on Ramlrez, J. L. (1995). *Skapande Mening: En Begreppsgenealogisk Studie om Rationalitet, Vetenskap och Planering*. Nordiska Institutet för samhällsplanering, Dissertation 13:2, Stockholm. pp. 49-110

- 4 Ramlrez, J. L. (1995). *Skapande Mening: En Begreppsgenealogisk Studie om Rationalitet, Vetenskap och Planering*. Nordiska Institutet för samhällsplanering, Dissertation 13:2, Stockholm. pp. 17-48

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design activism

TAKING (A) PART

Theorising an engaged or activist architectural practice through education and research

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Introduction

This paper presents one way in which research by design can be implemented in a design studio. It goes on to explore what role research by design in this form might play in developing theories of the spatial agency, and the ways in which architects might take part in processes of social appropriation as well as the social production of space. Whilst this conference takes the general theme of design research in the studio, my specific concern in this paper is design research as part of a socially and politically engaged approach to architecture. The theme of 'taking part', and questioning or choosing why and how to partake in processes of production of the built environment is key to my discussion, which focuses on developing roles for the architect, particularly exploring activist and self-initiated

roles. The profession of architecture has always been defined by the architect's relations to others. In a context of changing social relations, through political change, technological change and ideological change, ecological crises and diminishing resources, all of which affecting how we practice architecture, we then have new definitions of the architect. The role of the design studio in this shifting context is to test not only the methods of designing but also the relational as well as self-definition of the designer. To give some background to this, I will first introduce the history of defining the architect relationally, citing histories of the role, differently defined as one that is socially engaged. I will then go on to explore the possibilities of the design studio as a site for testing this in a case study of design-research project in the Masters studio at Sheffield.

Alternative and activist practice

The 1990s and 2000s have seen an emergence of architectural projects and practices concerned with producing a more socially-just built environment, addressing economic and environmental concerns and representing the needs and desires of marginalized communities (AAA/PEPRAV 2007; Architecture for Humanity 2006; Bell & Wakeford 2008; Blundell Jones et al. 2005; Awan et al. 2011). These alternative modes or types of practice have taken a range of approaches, with outputs including practitioner and community organizational platforms, built interventions, written and illustrated strategies, and educational and event programs.