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Dear is Durable

Liber amicorum for Hans de Jonge

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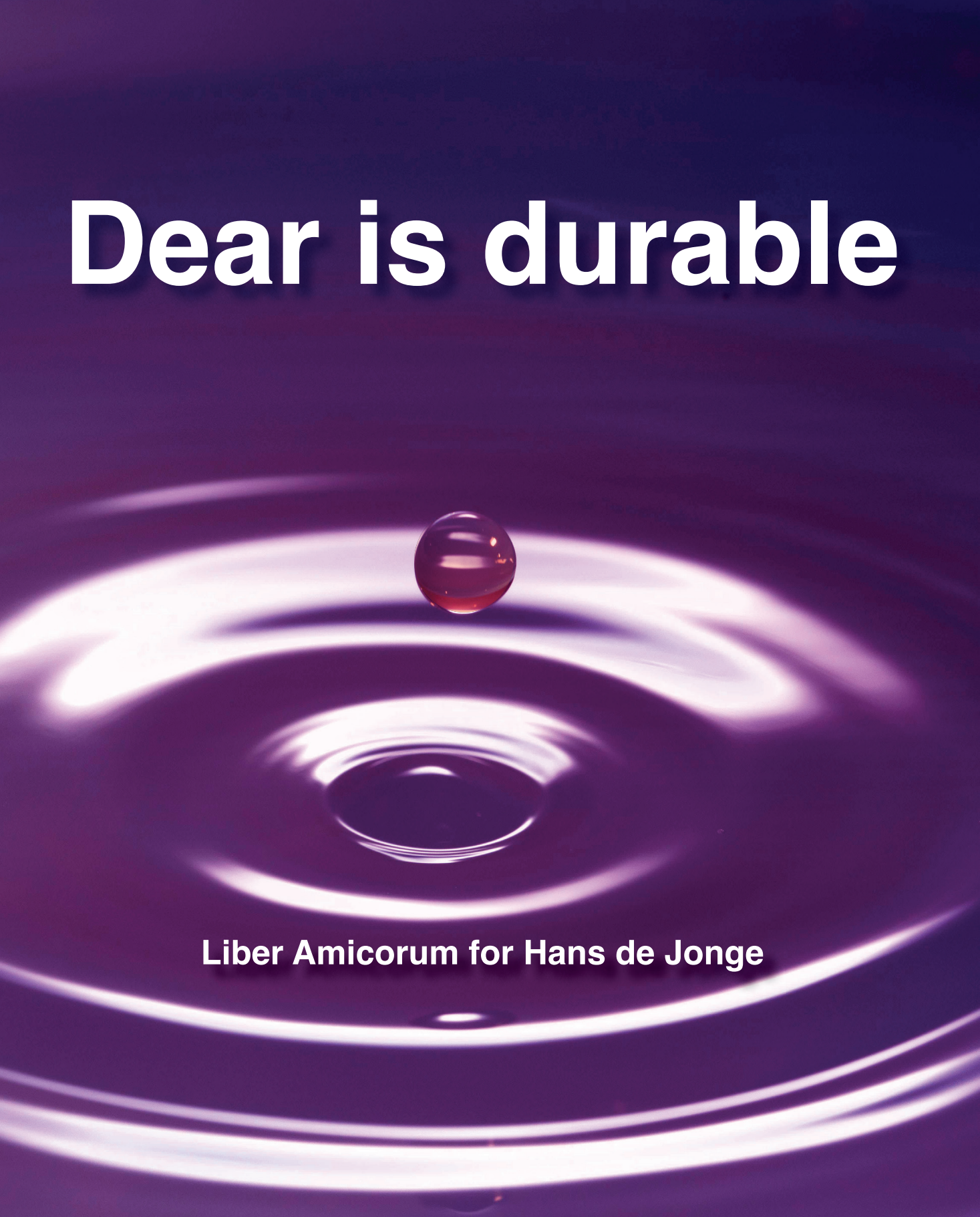
Dear is durable



Liber Amicorum for Hans de Jonge

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Dear is durable

Presented on 30 September 2016
at the farewell of Hans de Jonge as professor of
Real Estate Management and Development
at the Faculty of Architecture of the
Delft University of Technology

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Flavia Curvelo Magdaniel

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I have a dream

Hans de Jonge

When we started our new Department of Real Estate & Project Management, my dream was to change the real estate world, which at the time was overly financially oriented and focused on the supply side. I was not very happy with that. Being a designer by background, I found that the concepts of quality and value were not sufficiently incorporated. The key people in the industry were unlikely to change, so we started to educate young people that could gradually change the system. My idea was that the industry needs people who have a background in design, but choose to be in leading positions in the real estate industry later on. They would *carry the message* and then hopefully the real estate world would change. However, I noticed that It takes more than a few drops of red ink to change a bottle of blue ink to red; still over the years we have seen the industry change.

I have been telling this story to students for years, sometimes feeling someone who is shouting in the desert. But maybe my dream can also become your dream. Look into your own heart and see what you can do with it. I call it *disentangling the knots*.

If you look at the world right now, there are many big challenges that are interconnected. It is obvious that we cannot go on like this. There is a connection between energy, food, water and urbanization. We know that around the year 2050 70% of the human population will live in cities. This generates many questions and challenges. The patterns of how we are thinking right now and the way we are operating in the Western world are not appropriate. We have to change our mind-set. We have to create new concepts for cities and buildings that generate energy, that produce food, that make people happy, and to put our dreams into reality. Now - if we go back to the Dutch dream - we have to be modest, because the concepts we are thinking of will be confronted with daily practice and evoke many challenges. I will go specifically into a few things that are in my dream.

We need people with a background in design who choose to be in leading positions in the real estate industry

We have to make the existing stock and future buildings sustainable, adaptable and appropriate for human needs, so that people feel attached to it.

I think that future demand should mainly be accommodated in what we already have in the Western world: our legacy of the past. We still have to build new buildings, but this will add less than one percent to the existing stock. Accommodating our future need for space in existing buildings is a totally different ballgame. We have to make the stock useable, adaptable and sustainable and transform it in such a way that people relate with it and feel attached to it. Otherwise we will extend the current problems into the future. So we need to rethink it, redesign it and reuse it. And the last and maybe most important topic in my dream is to rethink real estate financing. The real estate world is still very dominated by financial principles. We have gone too far away from what real estate is really for: the accommodation of human needs. In the end we have created an industry that is producing despite human needs rather than for them.

Let us look at the stock. The current building stock does not have an overall high level of quality. To improve its quality and to make the stock sustainable will not be possible for all buildings. Taking these out of the stock and replace it by better buildings can also be a good way to add quality. The majority of buildings will have to be renovated or transformed. This means that you really have to think about the possibilities of what we have already. Design thinking is a very powerful tool for addressing the questions we are faced with. The analytical way of looking at things ex-post, by evaluating and extrapolating the past is not going to generate the solutions we need. So we have to look at what we have and what we can do with it. Look at it from different angles, with different principles and with an open heart and an open mind. I presume that your student's minds and hearts are still fresh. So redesign the current stock and reuse it. Make buildings more adaptable to the human needs; some of which are constant but many of which are changing continuously. Design and construct buildings that are less like a harness and more like a jogging suit! Think less about eternal architecture and more about temporary solutions.

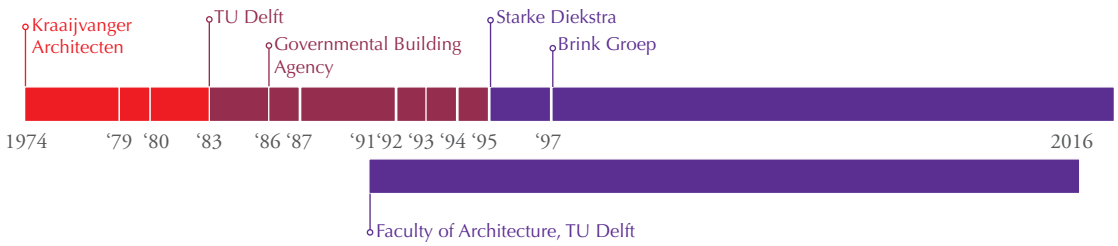
The last and the most important part of my dream is value. I think that the essence of our profession is to add value. My dream is to add value to humanity by means of our profession. You can do it in several ways, looking at several values. To me the most essential value is to accommodate human needs – to enable people to enjoy and to get attached to their physical environment. Look at our faculty building. Why do people love a building like BK City that has various functional problems and that is not energy-efficient? It has to do with falling in love! If people are attached to their environment, they take care of it. If there is only one side of the brain, only the rational side of the brain, we will calculate by formula the return on investment and end up having buildings that people are not attached to and want to throw away after 20 years, which is actually happening today. So seeing the human being as the core of our optimization, if you might call it that, is very important. Of course we have to know about financial values, and we have to understand the total cost of ownership, and we have to understand lifecycle costing. If we do not know those techniques, you place yourself outside the ballgame. People only listen to you if they know you understand these issues. I can talk to the bankers and they accept me, but they get nervous when I address the things that I have just mentioned..

So you can add value in many ways. Think about how you can add value with your interventions using both the left side and the right side of your brain, by designing and managing the built environment with your heart, led by the willingness to create quality and attachment. Then we can create environments that people actually like and are extremely valuable today. As a consequence they will last and this leads to my proposition: **Dear is durable.**

Hans shared his dream with 80 students of the corporate real estate management module of our master course during a 'kgotla' guided by our former student Martijn de Liefde at December 5th, 2014,. A 'kgotla' is a public meeting or a community council in Botswana. Martijn founded the Kgotla company in 2003.



Inauguration party 1992



The many functions of Hans de Jonge

Hans de Jonge (4 February 1951) attended the Operations Research Institute Land Use and Built Form Studies at the University of Cambridge in the UK (1972) and graduated as an architect at the Faculty of Architecture of the Delft University of Technology (1978). Furthermore he finished the Senior Management Program of VNO/Baak (1988).

Since his graduation Hans had various jobs and conducted many additional activities. Here you find a first glance of his many jobs. At the end of the book in the Hans at a glance section his full curriculum vitae can be found.

Jobs of Hans de Jonge

1991-2016: Chair in real estate management and development at the Faculty of Architecture of the Delft University of Technology.

1997- now: CEO at Brink Groep bv, Leidschendam

1986-1995: Diverse jobs at the Governmental Building Agency, the Hague.

1995-1997: CEO of Starke Diekstra Holding NV, Nieuwegein.

1980-1983: Kraaijvanger Architecten Rotterdam

1979-1980: Traveling along the globe

1974-1979: Kraaijvanger Architecten Rotterdam

Additional activities

Whereas two part-time jobs (in total 1,2 f.t.e.) – one in academia, one in practice - need more time and energy than many people could stick out, during his working life Hans conducted many additional activities as well.



Foreword

Hans Wamelink

In 1991 Hans de Jonge together with other pioneers started a new graduation program at the Faculty of Architecture and the Built Environment. This initiative was the result of recommendations from an assessment report on the quality and value of education at the Faculty. The advice was to make room for (among other things) themes such as Real Estate and Project management alongside the prevailing design disciplines.

The establishment of this new specialization, but also the Faculty's choice to appoint Hans de Jonge at this pioneering position was an extremely wise move. In a short period of time Hans felt at ease and gained a reputation for developing this new scientific domain attracting many students; he has a good sense of the special needs from practice and knows how to translate these into a strong academic curriculum that at the same time builds on the design character of the faculty. The curriculum which clearly distinguishes itself from other programs around the world delivers graduates with managerial, and technical knowledge combined with a solution-oriented attitude, which is highly appreciated by the Real Estate and Construction market. Until today, this is still the main principle of the graduation program 'Management in the Built Environment'.



The establishment of this new specialization, but also the Faculty's choice to appoint Hans de Jonge at this pioneering position was an extremely wise move.

Although the development of education was the basis for Hans' activities at the TU Delft, the number of initiatives in research is almost infinite as well. When I took over the lead of the Department in 2007, the department already consisted of sixty colleagues devoted to both education and research. Hans has established unique partnerships with organizations in Real Estate and Construction, including Knowledge Centres in the area of Workplace Management, Urban Area



Development and Process Innovation. The creation of such “satellites” is a characteristic example of inventive impulses Hans has given to the Department and Faculty. He connects the University with society, because of his involvement in numerous Committees, Advisory Boards, projects and, last but not least, by his inspiring lectures throughout the country.

The combination of energy, creativity, profound knowledge and perseverance makes Hans a unique personality.
The contributions in this Liber Amicorum perfectly illustrate his immense commitment and significance for science, the university, but also for our society. In addition, it shows Hans’ meaning to the people he has worked with. We’re very grateful for the unique way in which Hans has paved the way for scientific advancement in the field of Real Estate Management in general and the origin and development of the Department in particular.

I hope many people will appreciate the stories in this Liber Amicorum, but above all that Hans and his family will enjoy reading it. On behalf of all friends and colleagues:

Hans, many thanks!

Prof. dr. ir. Hans Wamelink is Professor of Design and Construction Management and chair of the Department of Management in the Built Environment, Faculty of Architecture and the Built Environment. TU Delft; he was the acting dean of the Faculty of Architecture and the Built Environment. from August 2014 - May 2015

Above: The department at excursion to Milan and Turin, Italy in 2003, to visit pioneering real estate projects.

Below: Study trip to Korea in 2012, organised by BOSS.



Editorial preface

Theo van der Voordt and Monique Arkesteijn

In 1991 Hans de Jonge was appointed as the new professor in Real Estate Management and Development at the Faculty of Architecture and the Built Environment of the Delft University of Technology. Trained as an architect and with many years of experience as a designer, project manager, consultant, and researcher of costs and quality, Hans brought much practice to academia. Together with his staff he started to design a new curriculum for students who wanted to become a developer, project manager, real estate manager or consultant, and modules for all other students to extend their knowledge on the real estate market, end user requirements, legislation and costs, and their skills in team collaboration and project management. Hans' *dream* was to educate people with a background in design who chose to be in leading positions in the real estate industry later on. He wanted them to carry the message and change the supply driven *blue* industry with demand value driven *red* input. That is why the names and quotes of the contributors to this book are coloured red. We all joined Hans at some point in time in his dream and coloured the world a bit more red.

In the 25 years since his appointment Hans de Jonge and his staff where on a *journey*. Hans chaired the Department of Real Estate & Project management (currently: Management in the Built Environment) for 16 years. He shared his views and knowledge in thousands of lectures for students and professionals, and was a member of many working groups and committees, for instance to select new professors, to develop a new accommodation policy for the Delft University of Technology, and to advice the Dutch Government in how to cope with vacant offices. Furthermore he supervised circa 30 PhD candidates and took numerous initiatives to start research programs, to



establish new knowledge centres, and to build national and international networks for collaboration in teaching and research.

To honour Hans and to say thanks for his huge efforts in teaching, research, management and consultancy, the department decided to offer him a Liber Amicorum: a book of friends to share the *journey* we were on together. Because we both know Hans for a very long time and feel to be not just his colleague but also his friend, we offered to do the job. I (Monique) met Hans in the early nineties during my study at the Faculty of Architecture, following the new curriculum. I was one of the first students who graduated in Real Estate and Project Management, guided by Hans at the Government Building Agency on new ways of working. Later on in 2003 after finishing my MBA and a world travel

I became a staff member in Hans' section. I asked Hans to be my promotor of my doctoral research in 2010.We share many things, amongst others we are curious, share our love for education, want to add value and are very fond of India, And I (Theo) know Hans already from the early eighties. At that time I conducted a comparative floorplan analysis and Post-Occupancy Evaluations of Dutch health care centres, together with my colleagues Herman van Wegen and Herbert van Hoogdalem, whereas Hans was working on his research into costs and quality of prisons. Hans wanted to know more about our research methods. This was the first and only moment that I was his teacher instead of the other way around. A few years later Hans chaired a symposium with John Zeisel – an expert in Inquiry by Design – and my colleagues and I thought the same thought: this guy should be one of our professors! History has proved that we were right.

The making of LA

We invited our colleagues Hilde Remøy and Yawei Chen to join the editorial team and together we started to invite people to contribute to this Liber Amicorum (LA). We asked professionals and academics from outside our Faculty as well as professors, deans and other policy makers of our university and a number of former and current staff members to write a small, medium or long essay. Furthermore most of Hans' former and current PhD candidates shared their experiences with Hans as their supervisor. We aimed to show the *journey,* the wide scope of Hans' work field and the challenges we are facing as well as our words of praise! Hans' proposition 'dear is durable' has become the title of this book. Therefore we asked all contributors to add a photo of an environment (place, building or space) that you love and has a special meaning to you.

Because Hans does not have the time or does not allow himself to make time to keep record of his many activities and output, we also collected data about his CV, his publications and his PhD candidates.

Hans' dream is to educate people with a background in design who have the ambition to change the 'blue' supply driven industry with 'red' demand driven input.

Sometimes we felt like being Sherlock Holmes, because we had to dig in many files, progress reports, output lists etc. When we found new publications that we were not familiar with, we felt like someone who collects sugar bans or stamps: yeah, we found another one!

The result

The response of the contributors was overwhelming. In total 74 persons submitted an individual or a joint contribution. As such we are able to present 22 short essays of Hans' PhD candidates and 50 contributions with a huge range of different interesting topics, including real estate management, urban development management, design and construction management, housing management and architecture, on different scale levels, with a focus on theory and empirical research or decision-making in practice. In Hans' valedictory lecture he addressed his dream, the journey and the challenge. This book does so as well.

All contributors have their own style of writing and outline, their contributions range from very personal experiences to journal paper like contributions including references and end notes. Common in all contributions is the shared appreciation of Hans de Jonge as a person, coach, teacher, supervisor, colleague, manager and source of inspiration. To cite just a few of Hans characteristics that are mentioned in this book: smart, fast, powerful, full of energy, hard-working, critical, innovative, continuously taking new initiatives, a strong leader, humoristic, engaged in people, a very efficient and effective chair of meetings and symposia, an enthusing teacher and supervisor, a stimulating connector of practice and academia, and … no, let's stop and not take the risk that he will become too big for his boots :)

We would like to thank all contributors for their time and effort to write their stories. We also thank Flavia Curvelo Magdaniel who was willing to design the book and to transform straight on contributions into a well-designed lay-out. Due to the enthusiastic responses the Liber Amicorum became what we intended to offer to Hans: a nice, interesting and inspiring collection of experiences, knowledge and personal anecdotes, all connected to one person: Hans de Jonge. There is no better way to thank Hans for all he did and, knowing him, will go on to do in the future. Hans: take care, and see you soon :)

Delft, September 2016



The editorial board – Monique Arkesteijn, Theo van der Voordt, Yawei Chen, Hilde Remøy – and our book designer Flavia Curvelo Magdaniel, August 2016

About the editors



Ir. Monique Arkesteijn is assistant professor of Real Estate Management at the Department of Management in the Built Environment, Faculty of Architecture, Delft University of Technology. She started at the faculty as a student in 1986 and was one of the first MBE graduates in 1993 with Hans de Jonge as her mentor. She had various positions as project manager and consultant at Starke Diekstra and as partner at Diephuis Stevens. She re-joined the REM section of Hans de Jonge in 2003 after finishing a MBA and a world travel. Since 2013 she is the team leader of the REM section and as such a member of the daily board. Her research topics include CRE strategies, CRE alignment and measuring added value for both corporate, public and semi-public organisations. Monique is in the last phase of her PhD study on preference-based accommodation strategy design. Currently she is board member of CoreNet Global, the world's leading association for corporate real estate with nearly 10,000-members. Monique is the (co-)author of Designing an Accommodation Strategy (2009), The power of pluralism for urban strategies (2012) and the award winning paper in the Journal of Corporate Real Estate on Designing a preference-based accommodation strategy (2015).



Dr. Theo J.M. van der Voordt is emeritus associate professor of Real Estate Management at the Department of Management in the Built Environment, Faculty of Architecture, Delft University of Technology. He started his carrier at the faculty in 1975. After various positions he joined the REM section of Hans de Jonge in 1997. He was the team leader of this section from 2007-2012. In this period he was also a member of the daily board and the research co-ordinator. His research topics include workplace management, adaptive re-use of vacant office buildings, successful health care real estate strategies, and adding value by corporate and public real estate. The work on offices is conducted in co-operation with the Center for People and Buildings in Delft. Theo is the (co-)author of many publications, including Costs and Benefits of Innovative Workplace Design (2003), Architecture in Use (2005), Transformation and re-use of vacant office buildings (2005, in Dutch), The Added Value of Facilities Management (2012), Accommodation management: from strategy till management of buildings-in-use (2012, in Dutch), and Facilities Management and Corporate Real Estate Management as Value Drivers: How to Manage and Measure Adding Value (2016).



Dr. Hilde Remøy is associate professor of Real Estate Management at the Department of Management in the Built Environment, Faculty of Architecture, Delft University of Technology. Hilde Remøy was educated and worked as an architect for 7 years before she started working at the department in 2005, as a PhD student. She was appointed staff member in 2009. Hilde Remøy coordinates and teaches in the BSc and MSc courses of the department of MBE, and in the NRP academy. Hilde Remøy's research is about adaptive reuse of real estate, focusing market mismatches, sustainable building adaptations and adaptive reuse of heritage. She is active in conducting scientific and contract research, frequently publishing research articles, reports and books. Hilde Remøy is currently member of the editorial board of the scientific journals Corporate Real Estate Management and Zeitschrift für Immobilienökonomie, member of the supervisory board of SHS Delft, and board member of the European Real Estate Society (ERES). As a board member of ERES, Hilde Remøy organised the annual education seminar on real estate education in November 2015. She will organise and chair the annual conference in 2017.



Dr. Yawei Chen MSc MSc is assistant professor in Urban Development Management at the Department of Management in the Built Environment, Faculty of Architecture and the Built Environment, Delft University of Technology. She was educated and worked as a planner for 7 years in China. In 2007 She received her doctor title from TU Delft. Her research focuses on the development of urban strategies of cities in transition to post-industrial knowledge-intensive economy, with special attention to the multi-scalar dynamics within strategic mega projects in European and Asian metropolitans. Her recent publications are "Neo-liberal inspired large-scale urban development projects (UrDPs) in Chinese cities" in The Routledge Companion to Urban Regeneration (Leary and McCarthy, eds, Routledge 2013); Framing the Long-Term Impact of Mega-Event Strategies on the Development of Olympic Host Cities, in Planning, Practice & Research (co-author with Lei Qu and Marjolein Spaans, 28 (3), pp. 340-359). She has been granted research secondments in Shanghai, Beijing and Hong Kong through the EU funded Marie Curie project - Urban Knowledge Network Asia (UKNA).

About the book designer



Dr. Ir. Flavia Curvelo Magdaniel is a post-doctoral researcher of Real Estate Management at the Department of Management in the Built Environment, Faculty of Architecture, Delft University of Technology. She was educated and worked as an architect in Bogotá, Colombia. In 2008, she moved to the Netherlands to pursue a masters education in Real Estate & Housing. In 2010, she obtained the degree of MSc at TU Delft and soon after her graduation she joined the department of MBE as a PhD candidate. Her dissertation focused on the development of technology campuses combining insights from Corporate Real Estate Management and Urban Development Management. Before and while working in her PhD research, Flavia performed graphic design works for the department of MBE, including the design of the dissertation Managing the university campus, research reports and marketing brochures for education and research. Nowadays, TU Delft features one of her original designs in the coffee cups and vending machines of the campus. Besides her appointment at TU Delft, Flavia works as an independent graphic designer.


RAATKAMER

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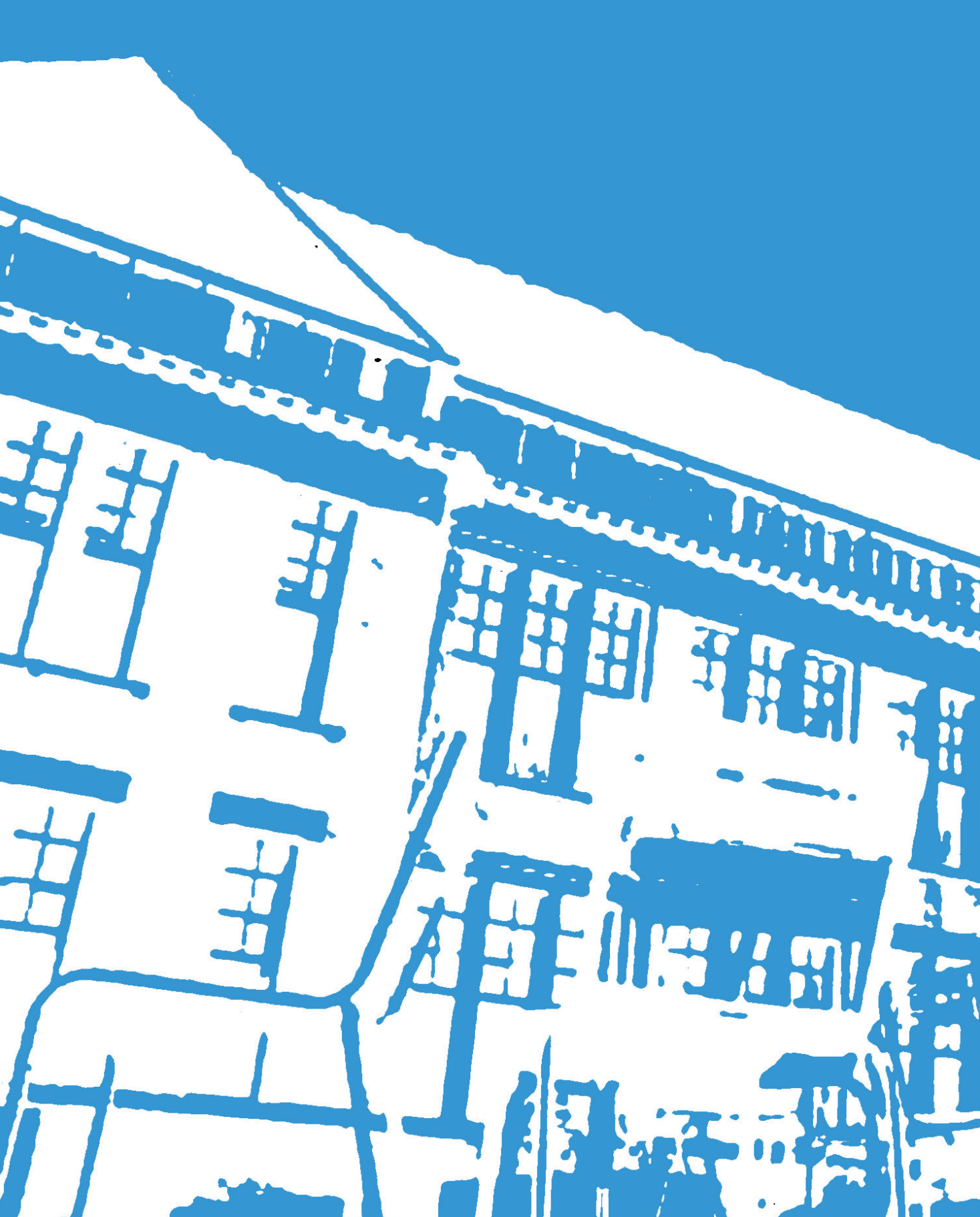


University managers about Hans de Jonge



Wittgenstein House in the Kundmanngasse (Vienna, spring 2013)

The Building Game

Jacob Fokkema

It must have been in the late 90's that I was asked to lead the midterm science evaluation of the Faculty of Architecture and the Built Environment of Delft University of Technology. I agreed and on one rainy day I entered the old building at the Berlageweg, the one before the fire of the May, 13th 2008, and announced my visit and purpose to the concierge of the building.

It was as if I entered, via customs, into another world. Through the mirror into the world of design where it seems that at every corner students and staff exchanged ideas in the open central hall. And there was Professor Hans de Jonge who welcomed me with a big smile. He spreads his arms and said: 'This is how we do research and let the world know that we are doing it'.

As every present has a past on which the future is built, also this story has an essential background. The then executive board of the university believed that the scientific endeavour of the faculty was not on par with the other faculties, where *measuring is knowing*. This is the conventional wisdom of the engineer, and for that, one of his oldest dicta.



It was as if I entered, via customs, into another world. Through the mirror into the world of design where it seems that at every corner students and staff exchanged ideas in the open central hall.

In general it is not true. Of course it seems straightforward, when you measure an object with a flexible steel ruler; the number on the ruler is a quantitative indication of for example its length. Then one forgets that a person's mind is needed to interpret the reading as the length of the object. Hence the reading is always correct; the interpretation can be wrong. To state it in a formal way: you need a theory to convert your measurement into knowing. That is also the message of the late legendary football player Johan Cruijff, who once said: 'You only see it if you understand it'.

In fact the original statement comes from the Dutch scientist Heike Kamerlingh Onnes, who said in his inaugural speech that '*From Measuring towards Knowing*' should be the maxim above the entrance of every physical laboratory' (*De beteekenis van het quantitatief onderzoek in de natuurkunde, Leiden, 1882*).



Window-locks in the Wittgenstein House

With this preliminary insight I landed with Hans de Jonge in the big meeting room with the beautiful glass tables and I was introduced with the rest of the evaluation committee to the representatives of the different scientific disciplines of the faculty.

Today I remember the evaluation as a pleasant occurrence, where we all learned from the presented material and not to forget the important discussions. It triggered my curiosity to understand the notion of the architectural sciences versus the physical sciences. At this point I like to investigate this seemingly difference with a short philosophical investigation. I prefer to do this based on the analysis of the late Ludwig Wittgenstein (1889 - 1951).

The most important work of Wittgenstein is his famous *Tractatus Logico-Philosophicus, translated by C.K. Ogden, London, 1922*. In this work Wittgenstein constructs a logical atomism to facilitate the possible language declarations. The work is presented in the form of numbered propositions, starting with:

1. The world is everything that is the case.

and ends with

7. Whereof one cannot speak, thereof one must be silent.

Between these two propositions the world of Wittgenstein unfolds with other propositions in between in decimal ordering indicating the logical importance. Wittgenstein firmly believed that with this book everything that could be said was said en wrote in his preface:

... On the other hand the *truth* of the thoughts communicated here seems to me unassailable and definitive. I am, therefore, of the opinion that the problems have in essentials been finally solved. And if I am not mistaken in this, then the value of this work secondly consists in the fact that it shows how little has been done when these problems have been solved...

In his work there was no room for ethics and aesthetics. They eluded the logical formalism; they could not be said, only shown.

After he finished this work Wittgenstein returned to Vienna and designed a house for his sister Hermine.

According to Ray Monk, one of Wittgenstein's biographers, the philosopher's work on the house focused on the design of windows, doors, window-locks and radiators. 'This is not so marginal as it may at first appear, for it is precisely these details that lend what is otherwise a rather plain, even ugly house, its distinctive beauty.'

Wittgenstein spent much time on these details. He took a year to design the door handles, and another year to design the radiators. It was as if this house, built between 1926 and 1928, had to reflect the definite order of logic. The Wittgenstein House was a laboratory for living. For some, though, it was an experiment that didn't work. Wittgenstein's sister, Hermine, wrote: 'Even though I admired the house very much, I always knew that I neither wanted to, nor could, live in it myself. It seemed indeed to be much more a dwelling for the gods than for a small mortal like me.

In March 1928 Lutzen E.J. Brouwer, the famous Dutch mathematician, came to Vienna to deliver a lecture entitled '*Mathematics. Science and Language*', based on his philosophy of intuitionism. That philosophy was an opponent to formalism of David Hilbert, the most influential mathematician of the 19th century. Wittgenstein was inspired by the presentation of Brouwer and it stimulated him in the thought that the logic atomism of his previous work was not the complete description of the world as residence of all the facts. Shortly after he finished work on the house in 1928, Wittgenstein returned to Cambridge University and philosophy. He developed a new philosophical vision that deconstructed his earlier work.

At this point it is interesting to note that similar thoughts in these times evolved in scientific thinking. In 1931 Kurt Gödel published his important two incompleteness theorems showing that the Hilbert program on finding a complete and consisting set of axioms for all mathematics is impossible. It seemed that the reign of logic was over.

David Stern characterized the transition from the early to the later philosophy as the route from logic atomism to practical holism. Now we enter the realm of *Wittgenstein's Philosophical Investigations, translated by G. E. M. Anscombe, Oxford, 1953*, which was published after the death of Wittgenstein.

If I had to visualise the difference of the Tractatus and the Investigations then the content of the Tractatus compares to a newly designed town with rectangular shaped roads to optimize the logistics, the logical result, while in the Investigations the map is the picture of an old city with curved roads which came into existence because the city grew that way, the beautiful result.

Instead of logical rules Wittgenstein relies in his Investigations on the power what he called 'language games'. He characterizes them as follows:

... there is probably no single characteristic which is common to all the things we call games. But it can't be said either that 'game' just has several independent meanings. What we call 'games' are procedures interrelated in various ways with many different transitions between one and another...

A game cannot be defined for it has a 'family of meanings' without a clear demarcation line. The terms of ethics and aesthetics have 'family of meanings'. What does this mean for the term 'good'. In section 77 of the Investigations Wittgenstein states:

...77. And if we carry this comparison still further it is clear that the degree to which the sharp picture *can* resemble the blurred one depends on the latter's degree of vagueness. For imagine having to sketch a sharply defined picture 'corresponding' to a blurred one. In the latter there is a blurred red rectangle: for it you put down a sharply defined one. Of course -several

Radiators in the Wittgenstein House



such sharply defined rectangles can be drawn to correspond to the indefinite one.- But if the colours in the original merge without a hint of any outline won't it become a hopeless task to draw a sharp picture corresponding to the blurred one? Won't you then have to say: 'Here I might just as well draw a circle or heart as a rectangle, for all the colours merge. Anything-and nothing-is right.'--And this is the position you are in if you look for definitions corresponding to our concepts in aesthetics or ethics.

In such a difficulty always ask yourself: How did we *learn* the meaning of this word ('good' for instance)? From what sort of examples? In what language-games? Then it will be easier for you to see that the word must have a family of meanings...

According to Baker and Hacker in a analytical commentary on the Philosophical Investigations remarked that Wittgenstein argues that there are degrees of kinship among concepts as among pictures. The kinship is insignificant between a very blurred concept (as in ethics or aesthetics) and a sharply bounded concept given by a definition.

Now we are ready to analyse the common grounds of architectural sciences and physical sciences. We rely on the observational language as the carrier between observation and meaning: from measuring towards knowing. The growth of physical knowledge does not originate from the consequences of a logical framework but from an improved observational language which is based on the present physical theory. That is the essence of the '*Physical Game*'. In the same way the scientific articulation of Architecture grows by sharing the family concepts with the community. That is the essence of the '*Building Game*', where also an observation language (not only words) in the context of the society is crucial.

I return to the reason of this short essay. I want to share with the community my admiration for Professor Hans de Jonge. He stimulated me then and later as rector magnificus in formulating the scientific value of design and implementing it in our university framework. He carried this message also as chairman of the *Council of Professors* where he shared his insights with the whole university. When we look today we conclude that Architecture is definitely adding to the academic reputation of our university and that also their building is part of their observational language.

Hans thank you for your important contributions and friendship.

You showed me that the Building Game is a fact.

Jacob Fokkema is a geophysicist and was rector of the Delft University of Technology from 2002-2009



"It was as if I entered, via customs, into another world".



The design of the 9/11 monument in New York City and the impact of the One World Trade Center stand out as a hallmark of vitality and strength of a vibrant city, respecting and honouring its past.

Hans is like a steamroller

Dirk Jan van den Berg interviewed by Monique Arkesteijn

The last three decades Dirk Jan van den Berg has worked at the highest levels of international relations, government, academia, and the corporate world. His leadership and executive experience has centered across all three major poles of contemporary global power (Europe, the United States and China). The key achievements in his career have been across the full spectrum of vision development, strategy design, comprehensive implementation and successful delivery. He led large and complex organisations such as the Ministry of Foreign Affairs, and Delft University of Technology. Currently he is the chair of Sanquin, a not for profit foundation entrusted with the operation of the national blood supply system. In connection to his job of being the president of Delft University of Technology from February 2008 till August 2015 we asked him about his personal and professional experiences with Hans de Jonge.

How did you meet Hans de Jonge and how do you view him?

I met Hans and in fact the whole BK community very shortly after my appointment as president of Delft University of Technology, when the old Bouwkunde building at the Berlageweg burnt down. Hans was not in Delft during the fire, but at the gathering at the Aula on May 9, 2000 Hans was very emotional. These emotions led – only days after the fire - to vigorous initiatives, such as the building of huge tents for teaching purposes, finding workplaces at other faculties, and – within three weeks – the decision to redesign the former head office of the TU Delft to accommodate the faculty and to create a new BK City. The faculty of Architecture and the Built Environment as a whole and MBE in particular played a major role in the realisation of BK City, the architecture competition for a new building, the Think tank to elaborate a vision on how to accommodate modern universities, and the campus vision 2020.

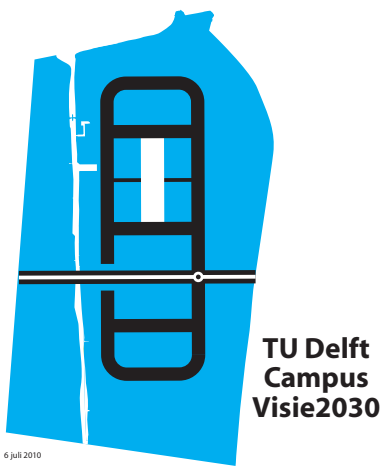


The transition between city and campus is a major ingredient for the development of the campus as well as the mixed-use of the campus.

Hans is a special type of professor, Dirk Jan adds. He has his feet firmly on the ground and acts in the midst of society. He is very good in combining the university goals with societal goals. I see Hans as a kind of 'steamroller'. A man who stands for something and goes after it with an enormous amount of energy and strength. And with a smile Dirk Jan adds: I do not think it is wise to stand between Hans and his goal. Being the president I listen carefully to Hans and the many other smart people at the university. I inform myself and then I decide. Because of that I have met Hans regularly during my presidency.

In which projects did you meet Hans especially?

When BK and its thousands of students and employees relocated after the fire to the North of the campus there was a need for a new campus vision. Hans and his MBE team together with urbanism and our real estate and facilities management unit FMVG developed a campus vision. I always believed in the vision of a campus as a living part of the city. The transition between city and campus was a major ingredient for the development of the campus and its interaction with the city



Cover of TU Delft's campus vision 2030

Campus vision 2020 for TU Delft

I also met Hans at the working party for an 'innovation agreement' between universities and the construction-sector on sustainability performance. A proposal for a covenant on energy performance and long term usability of buildings for the construction-sector. More in particular the so-called 'functional life span' is very important in the long term given the number of vacant buildings in the Netherlands.

How important is the built environment for the university?

Of incredible importance! How the campus looks and functions is crucial for students and future students, their parents and (future) scientist who like to work in Delft. I often hear – especially from alumni who haven't visited the campus for a long time – that they are impressed by the transformation of the campus: the Mekel Park and the new buildings. For us – current campus users – it turned already into business as usual. The next step is the educational building at the Industrial Design square. I am convinced we will create 'Grote Markt 2.0', the second version of the main town square, full of activities and attraction. It is super important how it looks and that it functionally works well.

Do you see real estate as a cost of doing business or as a value add?

I believe it is both at the same time; real estate is a cost of doing business AND at the same time it adds value to the organisation. As an example I come back to BK City again. After the fire many other universities were convinced that the Faculty of Architecture would not return to Delft. That the fire would indeed have destroyed the faculty. However, as a community we have been able to transform the former main university building – with its many small rooms - into BK City, actually opening up the inside as well as the outside with a new 'BK street' on the ground floor. I still remember the DIES in the conservatory, the new extension to the old building, when the re-building was partially still under construction. It was a fantastic experience. I must admit, that I even like the new building better than the old one, because it is much more open to the outside; there is a pleasant buzz around the building. I am very pleased we continued building interesting places on our campus grounds as demonstrated by the new TNW building

Is the faculty of Architecture and the Built Environment still the odd one out at the TU Delft?

Yes, you cannot deny that this Faculty with is artistic values is different than others. However, a lot has changed since 2008. The fire, beside its physical impact, also had a psychological element. Immediately after the fire every other faculty opened up its doors and made rooms and spaces available for the BK staff. As a consequence, the whole BK community was scattered around the campus, and because of that people met each other and got to know each other better. This has really strengthened the relationship.

What did you learn for the TU Delft that you bring to your current job at Sanquin?

Sanquin houses a substantial research institute and in that respect it is comparable to the TU Delft. Just like TU Delft, Sanquin thrives on excellent research staff and state of the art research facilities. The other constituent parts of Sanquin are quite different in nature. The Bloodbank has its roots in a profound public service history, while Sanquin Plasma Products operates in a fully commercial environment. In terms of organisational psychology there are very similar processes, since both TU Delft and Sanquin have similar size. So discussions on new working methods and their impact on the use of office space sound pretty much the same. In both jobs I work with very intelligent and knowledgeable people. I always enjoyed the engineers mentality in Delft where a decision, once taken, will stand. At the Ministry of Foreign Affairs, a decision was not the end, but the start of a discussion. When I started at the TU Delft I always joked about the cultural differences. In The Hague they do not want to spoil a good problem with a solution, in Delft it is the opposite: we sometimes need to identify a problem for a good solution.

What are you most proud of during your presidency?

I think the essence of my tenure has been to open up TU Delft to the world and to make it better understood in terms of its importance and of its inherent value and quality. Focus on Europe and TU Delft's subsequent successes in European programs are a good illustration of this. Our consistent focus on quality of research and education staff and on research infrastructure has paid off. A sound and prudent budgetary policy has created huge opportunities in campus development. Our lead role in new educational on line methods is widely recognised and the 1.000.000 students on line stand out as a token of this success. Also our innovation efforts have been made much more prominent and visible through the creation of Yes!Delft, not just an incubator but rather a' multiplicator' of new business initiatives. I am really very proud of what we have achieved and I strongly belief that TU Delft has and will have a great future.

Hans: thanks for your wise words during these past years, I have enjoyed your company!

Dirk Jan van den Berg has been the President of the Executive Board of the Delft University of Technology from February 2008 till August 2015, where he was responsible for the overall strategy and management of the university (staff 5000; budget 500 mln. Euro; students 18000). He is currently the chair of the Board of Directors at Sanquin Bloedvoorziening. He has over twenty years of experience at senior management level with a strong international focus. Before his term as ambassador to China, he has been the Permanent Representative of the Netherlands to the UN in New York and Secretary General of the Ministry of Foreign Affairs.



"Riders on the storm"!. Former building of the Faculty of Architecture, Delft

hans&hans
Just Young

Hans Beunderman

There is no real evidence of paths crossing of the combination "*hans&hans*" during the timeframe of their study at "Bouwkunde" - TU Delft. Nor during the early stages of their professional lives as architects in the real world….Possibly they were almost "at arm length" somewhere , but that would be all…
Young!, certainly, yes

Angry Young Men

When HansB entered the National Building Agency (Rijksgebouwendienst / Government Building Agency) in The Hague, HansdeJ was there. Angry Young Men, this is possibly what they were considered to be: ambitious, present, (over)active, and critical on the bureaucratic organization they were faced with. Quite a shock after life within a working-environment with chaotic, creative professionals.

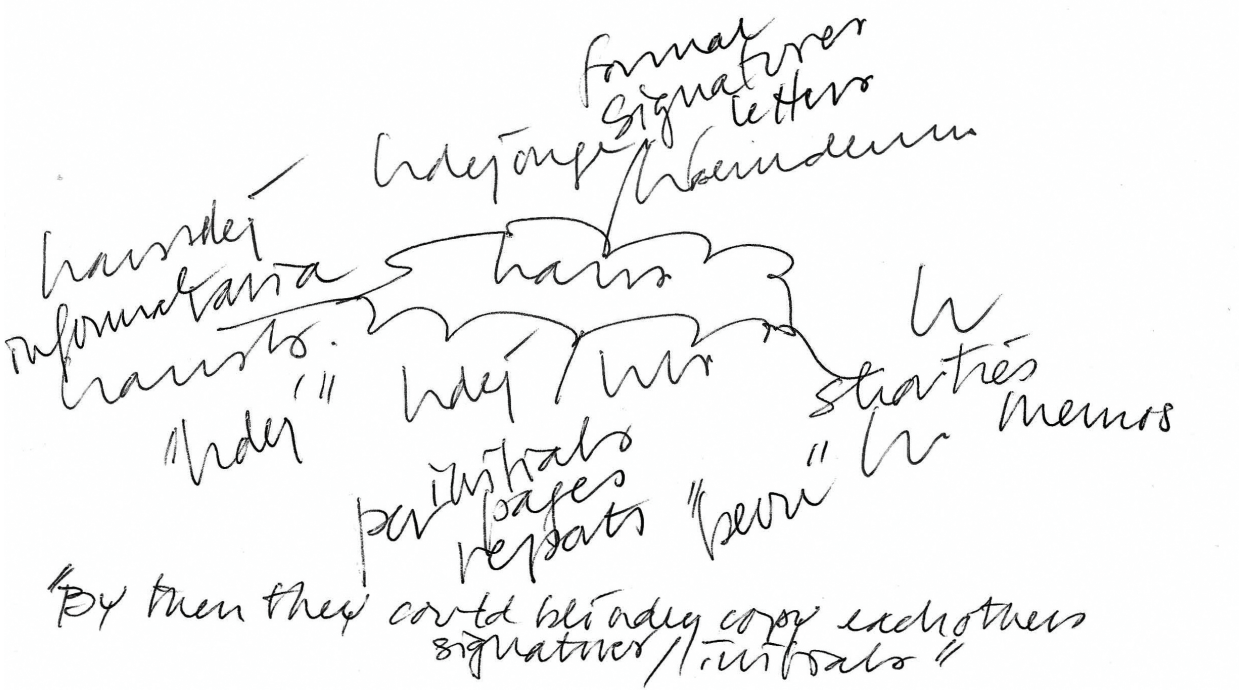
Of course they fulfilled their actual jobs within their directorate with zest: research, advice, consultancy, policy-making, management. Close was their collaboration, 99% tuned at the same mental wave-length, built on rapidly growing basis of absolute openness and mutual trust.



One crucial thing again holding them together: this unconditional mutual trust, transparency and loyalty…a pact forged.

Gradually however they spread wings and influence within the frontline of the organizational development of the Rijksgebouwendienst, and even beyond its limits: the Ministry of Housing, Spatial Planning and Environment, of which the Rgd was part. HansdeJ was asked to contribute to strategy-processes, HansB to the organizational culture of the Ministry.

Angry, but meanwhile a bit older. By then they could blindly copy each others signatures, or exchange initials: …*hb / hdj*!



Angry, bit older

Next phase in the shared professional life of this dynamic duo: the academia. HansdeJ being chair of the "*BMVB*" (Bouwmanagement en Vastgoedbeheer) department, HansB entering as dean for all of "Bouwkunde". Together defining a legitimate position of the department with its disciplines and process-approach within a design-oriented Faculty, thus providing the BK-alumni with a wider scope and more career opportunities in the field.

Together also building a "Faculty of Architecture", fit for the 21st century. Their silent understanding binding them together in heavy weather: "*Riders on the storm*"!.

HansdeJ, strong in defining the Faculty of Architecture in the outside arena, HansB moving the Faculty back again into the heart of the TU Delft, where it rightly belongs. HansdeJ influential as if an "eligible Rector Magnificus" , HansB active in - again - the organizational culture, this time of the TU Delft. Each and together creating the strategy of the Faculty of Architecture in the international arena, a sound research base to build true academic education on; a structure and culture to foster growing numbers of successful PhD's.

One crucial thing again holding them together: this unconditional mutual trust, transparency and loyalty…a pact forged.

The department, meanwhile named "*Management in the Built Environment*", generously provided HansB with a chair in Public Real Estate when he was appointed Vice Rector of the TU Delft. For him this meant finding an anchor again, a warm nest with true colleagues within a notoriously volatile academic environment.

Even Alexandra in a natural way linked into the combination "*hans&hans*". From the perspective of Public Real Estate and through his active involvement as Vice Rector in the European University Association, HansB could share her interest in University Real Estate on the Dutch as well as European scale. Together they were invited to perform in presentations in a.o. Belgium, United Kingdom.

A phase with lots of things to be angry about, but also quite happy!. Lots of reasons, by the way, to grow rapidly older and greyer.

Milder and greyer

Let us not forget these special moments…

Sailing on the Loosdrecht lakes during a solar eclipse, no sound of birds… no wind. HansdeJ being handed the TU Delft "Leermeesterprijs", almost in tears. His motorcycle accident: "*Hans I am calling from* the hospital now, you need not worry, I can work quite well over here". Or his prestigious "Royal Honor": for once in his life HdeJ speechless, truly a total "KO". Shared tears however in times of ill fortune, when their precious Bouwkunde building burnt down….

At the happy end of the story: a lively contribution to HansBs farewell to TU Delft and dinner for intimi only…

An intermezzo

HansB's favorite metaphor for a coherent organization: the story of the "*Aptenodytes fosteri*": *the Emperor Penguin*.

The story seems simple. During the extremely severe winter period in the Antartica the 'male penguins protect their eggs, "handed" over to them by the female, who then dive into the southern ocean to help breed and feed the young again next springtime. The impressive image is formed by the group of male penguins, huddled together, shoulder=wing to wing, protecting each other and the eggs against the icy stormy cold…and thus helping to survive themselves and the species!.

The metaphor in this story could be interpreted as the ultimate collaboration and trust (*read: between colleagues*), and care for the continuation of the precious species (*read….Bouwkunde community*).

The HansB penguin –during stormy conditions in Delft- gratefully found support and shelter with HansdeJ , really a king-size emperor penguin!

Older and wiser

So finally they both end up in the illustrious state of "emeritaat", an euphemism for plain retirement. Of course there is a transition period…working life certainly needs some cooling down, or rather detoxing.



Let us assume that by now they have become - apart from being really old in the eyes of the next generation- also wiser. And that not only the Delft and others can benefit from all wisdom accumulated with trial and error : for the truth finally must be revealed…they were really nothing more than just plain nice guys fooling around a bit.

Let us hope that also their partners, direct family and friends may benefit from a bit easier pace and milder mental state. We certainly do wish so for HansdeJ and Alexandra.

And may the combi "*hans&hans*" also benefit from prosperous winds and sail safely into the next lap of their life regatta. No eclipse needed.

In the end…

The expression goes "What's in a name"?
Well my answer is clear:
"Everything is in a name"!

Hans Beunderman is an Architect, former Director/dept Director General of the Governmental Building Agency and dean of the Faculty of Architecture from 1998-2006. He ended his career as Vice Rector of the Delft University of Technology.



House of Hans de Jonge, seen from Wytze's bike

Hans de Jonge and architecture

Wytze Patijn

In some way Hans and I look alike. Not literally of course, but regarding our background and history. We both studied at the TU Delft in the sixties, in a time that our faculty was called the Department of Architecture ('Afdeling Bouwkunde') of the Delft Institute of Technology ('Technische Hogeschool Delft'), abbreviated as TH Delft. We lived in a time that almost nothing went without saying anymore. Much or maybe everything was subject of a debate. We studied architecture and discovered that design has much to do –according to some people everything - with the social context. In particular regarding this topic our architectural education was very archaic. Architecture educated people to become a classical architect, being the representative and confidential advisor of the client and the key central person in the design and construction process. The reality was already different and the role of the architect was shifting.

Besides, the educational programme did not offer any clues to engagement and commitment with societal changes. Architects who wanted to be involved in social change – like Bakema and Van Eyck – were heroes to us. However, in the early seventies the student movement perceived these architects as artist-designers and naive idealists, to put it mildly. We intended do it completely differently. We started to work on social housing and urban renewal projects. These topics were hardly included in our curriculum at that time. Together with many other students and in collaboration with a number of progressive teachers we created room for these new subjects. Many initiatives were started to study a huge variety of subjects and to put them in practice, from many different points of view and including different points of departure. Technology, philosophy, history, psychoanalysis, history of art, economics, everything was discussed at that time.



Hans took the path of science and process management, but our starting points were the same: curiosity into how the world functions and how to change it.

But a more fundamental issue played an important part as well. We wanted more science! Students argued for a so-called 'scientification' of architecture and architectural design. This issue brought another affinity between Hans and me. I also found most statements and views of our hero-architects often too vague and intangible. It is true that their views were based on idealistic considerations, but often disconnected from reality. For me this resulted in an orientation to sociology and sociological research of housing and residential neighbourhoods. As a consequence I learned to think in a more scientific way, but I also learned that not everything can be grounded in science. Indeed it resulted in a better understanding of the ways of thinking of other people, which is not unimportant for architects.

Hans took another route, the path of science and process management, but our starting points were the same: curiosity into how the world functions and how to change it. From the start on Hans wanted to know how everything works, first as a research director of the Governmental Building Agency, and soon in a more scientific way as a professor at the Delft University of Technology, where he founded a new Master track in Real Estate & Housing, commonly called the department of real estate ('vastgoed'). His drive to incorporate real estate and project management in the curriculum of the Faculty of Architecture of the TU Delft tells its own story. He has always understood the importance of establishing real estate management in a design faculty. His main argument was, and still is, that this gives real estate thinking a broader scope and a stronger connection to culture than when it is just technology, processes, policy, and business administration. Due to the combination with design thinking and the conceptual approach of designers, students in real estate management learn to be more creative. This view is really praiseworthy and still refreshing in the rather conservative world of real estate.



Collage of the faculties' department names.

Vice versa Hans' perception is that designers should get a broader view and understanding of processes and the social, political and economic context in which they create their designs. Also to put in perspective what I would like to call their fascination of being great and famous that seems to be connected to the architectural profession.

For this reason Hans' attitude to architects' stories is rather ambivalent. However, we cannot live without them. I am increasingly convinced that ideals and ambitions are very important and even leading, but insufficient. They have to be based on broad, realistic social and cultural objectives. It is Hans' view that the discrepancy between let's say creative people and scientists can create a very fruitful field of tension. It is quite simple: the more views and backgrounds, the more multiform our scientific environment, the deeper our understanding will be and the broader our scope.

Just like me, Hans is still critical about the scientific level of architecture and architectural design. In the world of architecture the need for *Research by Design* is widely advocated, but so far only a few results have been attained. The scientific debate about architecture mainly concerns architectural history and much less design itself. Applied research is not very often focusing on design itself as well. It seems that science and design are still worlds that are not easy to connect. Maybe this is okay. Discussion and debate continue to be important. Without different 'blood groups' the Faculty would became boring and much more superficial. The ever-continuing debate about the name of our Faculty – is it only "Architecture" or also the "Built



June 3, 2008 - BK Camping Campus. Photo: Hans Schouten

Environment" or is that more or less the same? Look at our piece of art of our name on the front of our building: archi- architect – tecture with the flame Prometheus. It symbolises this discussion in an excellent way!

After all, there is one special example of the everlasting love of Hans for architecture: his own house. I often – approximately 20 times a year – cycle along this beautiful house. It's well located along the river *Rotte* and has a strong shape in the landscape. And always I must think: it's a silent witness of his secret love

There is only one conclusion left: we still need critical and sharp minds like Hans with love and understanding for all our different approaches, blood groups, cultures, opinions and people. We are going to miss him!



Hans in the former building of the Faculty of Architecture in 2007

Prof. ir. Wytze Patijn, architect, is a former Chief Government Architect, professor of Housing Design at the Faculty of Architecture TU Delft, and dean of this faculty from July 2006 - November 2010; he is currently the supervisor of the TUD campus and city architect of Delft.



One of the favourite places of Karin Laglas: the Espresso bar, where staff and students meet and greet and exchange ideas

A designerly way of decision-making

Karin Laglas, interviewed by Theo van der Voordt

Karin Laglas was the dean of the Faculty of Architecture from January 2011 till September 2014. At that time she also acted as a professor in Real Estate and Housing. Before she became our dean, Karin Laglas has been the interim-director of the Association of Dutch Architects (BNA), Chief Operational Officer at OVG Project Development in Rotterdam (focussing on the development of sustainable commercial real estate), general director of Rodamco Europe, Rotterdam/Amsterdam (an investor in commercial (retail) real estate, quoted on the AEX stock exchange), director and developer at the MAB group in The Hague, and project manager at Twynstra Gudde in Deventer.

Currently Karin Laglas is the CEO of Ymere, a housing association in Amsterdam with 80,000 dwellings and 900 staff members. Here she is responsible for the overall management including the real estate portfolio, investments, de-investments, and many other business issues. As such Karin has a lot of experience with managing organisations and management of the built environment.



What helps is the designerly way of thinking and working, i.e. following a much more cyclic or circular approach than a linear approach.

What was your first contact with Hans de Jonge and do you still meet him?

I knew Hans for quite a long time before I became the dean of the faculty. We met each other various times at meetings and lectures and in our network of directors and other professionals. Our first "joint job" goes back to the late nineties, when I was the director of MAB Netherlands. We worked on the development of the South Axis area in Amsterdam, and Hans

and his Brink Group were involved in the same project as a consultant of the executive board of the VU Amsterdam ('Vrije Universiteit Amsterdam'). We had many interesting discussions at that time. I was impressed by the way Hans combined and still combines practice and academia, which is really one of his strengths and key factors of success. Later on I worked often abroad, inter alia in Paris, but when I was in the Netherlands we regularly met again. When I became the dean of the faculty I sometimes had hard decisions to make and I always could count on Hans for his help and advice. We also joined forces in the SKG knowledge centre ('Stichting Kenniscentrum Gebiedsontwikkeling'), the post-MSc programme of the Master of City developer (MCD) in Rotterdam, and the appointment of Marleen Hermans as a new and externally funded chair of public commissionership. After leaving the faculty my contacts with the faculty diminished, partly due to my busy time schedule and partly because the faculty seems to make connections with practice less often than one might expect. But of course I still meet faculty members. Vincent Gruis, chair of Housing Management, is one of Ymere's commissioners. Peter Boelhouwer, chair of Housing Systems, was involved in one of our audits. Hans and his wife Alexandra den Heijer and my husband Sybrant and I also meet each other privately from time to time.

Some staff members involved in design studios would prefer to transform our faculty in a Design School and would like to move our Management in the Built Environment (MBE) department to the Faculty of Technology, Policy and management. What do you think?

That would really be a very bad decision. Following the courses of MBE is not particularly necessary to become better designers, but prospective designers urgently need knowledge about the context in which they will work, how decisions are made, how processes go on, which stakeholders and (often conflicting) interests are involved, if/how their design fits with market needs, etcetera. Designs have to be constructed and buildings-in-use have to be managed. This requires an appropriate organisation of building processes, on building level and area level. That's why I changed the name of our Faculty from 'Architecture' to 'Architecture and the Built Environment'. This emphasises that our faculty has a much wider scope than just design. I am still disappointed that I didn't succeed in replacing the current name on the facade by the new name!

As a dean you are also appointed as a professor, in your case professor in Real Estate & Housing. How did you experience this 'dual' job?

Apart from strong leadership skills and management competences, a good policy maker a manager needs to be strongly connected with and committed to the content of the field. Giving lectures and supervising graduation students helped me to stay connected with the students and their curriculum. In my current job as director of a large housing association I also have many contacts with tenants and other actors in the neighbourhoods. But of course it was hard to be a dean and a chair at the same time, due to the continuous time pressure of many management activities. I suppose that this is the reason why Hans de Jonge never became the dean of our faculty himself. That is a pity, because I am sure he would have been an excellent dean and it would have been an interesting step in his career. I would say that it is the only thing that lacks on the impressive list of what he has done.

Does your experience of having been our dean help you in your current job?

I use my experience and lessons learned from all former jobs, for instance regarding project management, development and investment, and managing complex organisations. Being the dean of the Faculty of Architecture for 3,5 years and part-time professor in Real Estate & Housing, I could further build my body of knowledge regarding the performance of housing associations and housing management. In my current job I still use my contacts with the faculty. Marja Elsinga supported us in defining our current and future strategy. What also still helps me is the designerly way of thinking and working, i.e. following a much more cyclic or circular approach than a linear approach. As one of the editors of 'Ways to study architectural, urban and technical design' you must be familiar with how designers think and work. Quickly

and iteratively shifting from problem solving to assessing solutions from the perspective of different stakeholders and assessing the fit with preconditions and then again further elaborate possible solutions is firmly-rooted in my mind-set. It might be that I also did that before, but at the faculty I became more aware of this, what helped me to apply it more consciously, especially in complex decision making.

What advice would you like to give to our faculty, our department and Hans de Jonge?

To the faculty I would say: enjoy and be proud on the richness of ideas and the huge amount of knowledge, creativity and innovation at your faculty, ranging from architectural, urban and technical design to history of design, design as politics, design theory, real estate management, design and construction management, housing management, geo-information technology, governance, green building innovation, healthcare infrastructure and much more – what a wealth! Enjoy your building, it is fantastic to see all those many opportunities to meet each other. And don't forget to keep strongly connected to the outside world. To your MBE department I would like to say more or less the same. Enjoy your national and international track record and your unique position! And reconsider from time to time what is really key in your field in connection to our faculty and which knowledge you don't need to be specialised in but could be brought from outside. And tips for Hans? Ah, he does not need any advice. Let Hans go on with being busy and brilliant, be it a little less than 80 hours per week, and in particular go on with connecting practice and academia.

Prof. ir. Karin Laglas was the dean of the Faculty of Architecture TU Delft from January 2011 - August 2014. Currently she is the CEO of Ymere Housing Association



The east conservatory: a multi-functional space for individual and group learning activities and public presentations.



The west conservatory: a place where students work on their scale models.


NORTH ATLANTIC OCEAN
Holland
MOROCCO
ALGERIA
TUNISIA
LIBYA
EGYPT
MAURITANIA
MALI
NIGER
CHAD
SUDAN
NIGERIA
CAMEROON
CENTRAL AFRICAN REPUBLIC
ETHIOPIA
ERITREA
DJIBOUTI
SOMALIA
KENYA
UGANDA
RWANDA
BURUNDI
TANZANIA
DEMOCRATIC REPUBLIC OF THE CONGO
ANGOLA
ZAMBIA
MALAWI
MOZAMBIQUE
ZIMBABWE
NAMIBIA
BOTSWANA
SOUTH AFRICA
MADAGASCAR
COMOROS
SENEGAL
GUINEA
LIBERIA
SIERRA LEONE
CÔTE D'IVOIRE
GHANA
TOGO
BENIN
BURKINA FASO
EQUATORIAL GUINEA
GABON
CONGO
SÃO TOMÉ AND PRÍNCIPE
CAPE VERDE
GUINEA BISSAU
THE GAMBIA
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FREETOWN
MONROVIA
ABIDJAN
LOMÉ
COTONOU
PORTO-NOVO
YAOUNDÉ
DOUALA
LIBREVILLE
BRAZZAVILLE
KINSHASA
LUANDA
WINDHOEK
GABORONE
HARARE
LUSAKA
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KIGALI
BUJUMBURA
DODOMA
DAR ES SALAAM
ADDIS ABABA
DJIBOUTI
ASMARA
KHARTOUM
OMDURMAN
ANTANANARIVO
MOGADISHU
Johannesburg
Soweto
Pretoria
Cape Town
Durban
Port Elizabeth
Bloemfontein
Kimberley
Polokwane
Nelspruit
Mbabane
Maseru
Gaborone
Windhoek
Walvis Bay
Swakopmund
Lüderitz
Namibe
Lubango
Huambo
Benguela
Lobito
Cabinda
Pointe-Noire
Brazzaville
Kinshasa
Matadi
Boma
Luanda
Malanje
Saurimo
Luau
Luena
Menongue
Cuito
Kuito
Cuanza
Kuvango
Ondangwa
Oshakati
Rundu
Katima Mulilo
Livingstone
Lusaka
Ndola
Kitwe
Kabwe
Chingola
Mufulira
Solwesi
Kasama
Mbala
Lubumbashi
Likasi
Kolwezi
Mwinilunga
Zambezi
Chavuma
Kariba
Harare
Gweru
Bulawayo
Masvingo
Mutare
Beira
Chimoio
Tete
Blantyre
Lilongwe
Mzuzu
Nkhata Bay
Nampula
Pemba
Quelimane
Inhambane
Maputo
Xai-Xai
Matola
Nacala
Lichinga
Cabo Delgado
Njazidja (Grande Comore)
Moroni
Mwali (Mohéli)
Mayotte (Fr.)
Antsohihy
Mahajanga
Antsiranana
Toamasina
Antalaha
Morombe
Toliara
Mozambique Channel
Amirante Islands
Aldabra Islands (Seych.)
Cape Frio
Cape Columbine
Port Nolloth
Springbok
Upington
Kuruman
Hotazel
Kimberley
Vereeniging
Welkom
Bethlehem
Ladysmith
Pietermaritzburg
Port Elizabeth
East London
Grahamstown
Queenstown
Bitterfontein
Lüderitz
Keetmanshoop
Mariental
Swakopmund
Walvis Bay
Okavango Delta
Lake Ngami
Makgadikgadi Pans
Francistown
Selebi-Phikwe
Serowe
Palapye
Maun
Kasane
Victoria Falls
Hwange
Bulawayo
Gweru
Kwekwe
Chinhoyi
Harare
Mutare
Chimoio
Beira

Words of the current dean

Peter Russell

Hans has a huge legacy. He has helped to build up Real Estate & Housing, now Management in the Built Environment to a world leader in research and education in the Faculty. It is impressive that he came from a family which already had a strong legacy, and despite that Hans built his own.

Where in the world do we want to go?

TU Delft is seen as a top technical university in the world. The Faculty of Architecture and the Built Environment is recognised as being in the top ten schools worldwide. As such, the world looks to us for guidance and leadership, if not for cooperation and collaboration.

The answer is Africa

I say this not because we have a long history there or because of some personal connection. It is because all of the indications are that the greatest potential for change is in Africa. It is also the place where the greatest potential to make more people's lives better can be realised. This is an issue of architecture and the built environment. To begin with, Africa is not a country: it is a continent and it is huge. It has 64 countries and territories of varying size and wealth encompassing 1.2 billion people. This



It is impressive that he came from a family which already had a strong legacy, and despite that Hans built his own.

continent has long been synonymous with failed investment and corruption. It was the place where people with good intentions went to see their hopes and dreams quashed, for any number of reasons, including the two mentioned above.

Yet, since the turn of this century, a few African countries have experienced something we in Europe take for granted: good governance. A decade and a half of this in some African countries has allowed



Study places after the fire: BK Camping near the spot of the old faculty building. Photo: Hans Schouten



Current study places at BK City, Julianalaan 134, Delft

citizens in those countries to believe in the rule of law and has permitted their economies to grow in a solid, stable fashion. In countries with growing economies, there is a consistent correlation between GDP per capita and car ownership. Once people have their phones, a threshold of approximately 4,000 USD per head is where car ownership takes off. Interestingly, this levels off at about 12,000 USD per head. This is because most people do not need or want two cars. Instead, they want to own a home.

In these countries, with stable governments and stable growth, there is a growing middle class looking to invest its new wealth. Instead of putting their wealth in offshore bank accounts, people are looking to invest in their own country. Inevitably, investment means construction. Then there is a real need for excellent architecture and planning that can ensure the retention of value.

This means there is also a need for excellent architects and planners. This is where TU Delft's Faculty of Architecture and the Built Environment can play a role. As a leading school of architecture, we can establish relationships in education and research to help improve the quality of the universities and hence their graduates, their scholarship and their research. To be clear, there are already excellent architects in Africa. The Makoko Floating School designed by Studio NLÉ in Lagos is a perfect example. Facing an almost impossible problem, NLÉ figured out a solution that is responsible and ingenious. It is not that there are not any brilliant planners in Africa; it is just that there will need to be more of them. There is and will be a need for a multitude of ingenious and responsible architects, engineers and planners.

The expected population growth in Africa will essentially double the population by 2050, meaning 2.4 billion people. This is an increase of over 40 million people a year – that is a new Netherlands every six months for the next 30 years. Most, if not all, of this growth will take place in urban areas. This means that the way we plan our cities will also need radical help, if not a fundamental change in how we think, understand, plan and manage these cities.

Peter Russell is architect and dean of the Faculty of Architecture and the Built Environment since 2015. Before this, Peter Russell was Professor of Computer Supported Planning in Architecture (CAAD) at the RWTH Aachen University.

Positioning of Management in the Built Environment

Morgan Stanley Dean Whitter
DEGW Briefing & Interiors



BBC London
DEGW Briefing & Interiors





Capital One, Nottingham
DEGW Briefing & Interiors



DEGW Offices, London
DEGW Interiors

Bridging the Gap: Learning through Practice in a Paradoxical World

John Worthington

Rethinking Management and Design

We live in a paradoxical world (Handy 1994). Problems and their potential solutions are seldom framed as binary choices of *either* this or that but as a paradox of *both* this *and* that. The planning, design and management of the built environment is concerned with both product and process, being fixed and fluid and working collaboratively whilst rewarding individual flair. Clients wish to minimize risk but crave for the magic that will make their building unique. What then is the role of design? How should it be delivered? And what might be a future agenda for learning, research and practice?

My definition of design spreads further than the built environment. Design can apply to both a product and a process. It can impact both the building and the production processes that are housed within it. Design is thoughtful, ethical and based on principles. To fit the wider context of the built environment I have defined design as - *the meaningful and elegant allocation of resources*. The word meaningful being used to reflect purposeful expression and elegance, as in a mathematical equation



Hans brought a clear vision of the value an experience of practice can bring to teaching and in turn what research and learning brings to practice.

Design thinking, is holistic, recognises no boundaries, speculative and thrives on wicked problems (Rittel and Webber 1973). Management thinking defines problems within tight boundaries and breaks the project into discrete parts to minimize risk. It leaves options open till the "last responsible moment". One is not right and the other wrong both ways of thinking are required, in harmony or separately, at the appropriate time.

In medieval times the design and construction of cathedrals was integral under the leadership of the master mason. By the latter half of the sixteenth century inspired by the Italian Renaissance the title "archytecte" emerged "establishing a new divide between the pretentions of a discourse regarding architectural ideals and the pragmatism of building mechanics – a divorce of conception from execution, and of architecture from building"(Allinson 1993). The Victorian era with the growth of industrialisation and urbanisation saw the rapid rise of the Civil Engineer as the hero of a new age. However by the late 19th century with the emergence of the building professions and sufficient wealth to be distributed on the arts, the notion of the art-architect represented by the arts and crafts movement re-emerged.

During the 20th century architectural education was delivered as academic courses in universities or vocational courses in technical colleges and art academies (Worthington and Orbasli 1995). By the 1970 this separation was less pronounced (Worthington 1995) and leading Technical Universities, such as TU Delft, were introducing sociology and later management to the curriculum.

Hans de Jonge, who had studied Architecture at TU Delft (1978) returned in 1991 as one of the founders of the Real Estate and Project Management course. His previous experience at VROM, heading up the rationalization of the Government property portfolio through the introduction of "new ways of working" (Pullen 2001), combined with his continued involvement with practice, as chairman of the Brink Group, brought a clear vision of an experience of practice can bring to teaching and in turn what research and learning brings to practice.

Under Hans' leadership the current department of Management and the Built Environment (MBE) integrates a strong graduate and post graduate programme with practice and research that spans from the object (buildings) to the neighbourhood (estate or campus) and the urban context (Arkesteijn & Volker 2016). Central to the department's mission is a concern with the alignment of the supply of relatively static real estate and the dynamic market demand for up to date buildings, infrastructure and public space http://www.bk.tudelft.nl/over-faculteit/afdelingen/management-in-the-built-environment/.

I proposed at the beginning a definition of design that encompasses both the traditional role of the Designer (Architect) in the built environment and those in management concerned with the allocation of resources. Design of the built environment can happen at many levels covering a spectrum from product to urban design. In each of these management has traditionally been seen as "Design management"- the management of the process of envisioning, designing and delivering the product. With the emergence of Corporate Real Estate Management (CREM), Facilities Management (FM) and Urbanism the effective use of space to meet the long term changing demands of the user is seen as a continuous organic process. The governance of a city or the management of a company can be viewed as a continuous project (Exhibit 1) within which the provision or adaptation of space is a finite project (Blyth &Worthington, 2010). In this paper through the work of DEGW (DEGW Designers for Change 2014) I will outline how management and design can be integrated to provide a broader vision of architectural practice, education and research.

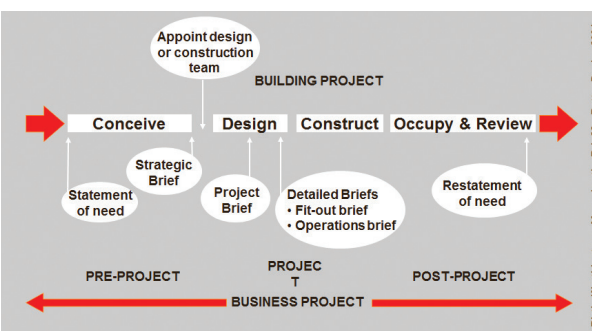


Exhibit 1. The life of an organisation is a continuous process within which the provision of space becomes a finite project. Source: Blyth and Worthington 2001

DEGW: A Global Consultancy Combining Research, Strategy and Design

Founded in 1973 DEGW developed a global practice involved in strategic consultancy and design, research based practice, cross disciplinary education and publishing. Frank Duffy, Peter Eley and John Worthington all studied together at the Architectural Association, London (1959-64) and subsequently in sequence as Harkness Fellows in the United States. Luigi Giffone studied Architecture and Engineering in Rome where he had his own practice in the early 1950's and then worked as a designer in America (DEGW 1998). The common education of three of the partners and their subsequent North American experience moulded the driving ideals of the early practice. The founders having been exposed to other disciplines and the commercial world of space planning, whilst passionate about architecture, saw the opportunity to integrate building and organisational design, using the emerging tools of space budgeting, post-occupancy evaluation and participatory briefing, reflected in two seminal publications *Planning Office Space* (Duffy Cave Worthington, 1976) and *Industrial Rehabilitation* (Eley and Worthington, 1984).

Design and research was central to what DEGW stood for. We were inquisitive about how organisations function to then propose the most appropriate form to meet the organisations requirements. Our research agenda was driven by questions formulated through practice and tested through design. What made DEGW's approach special, as designers collecting data, was that in parallel we were formulating propositions and planning for action.

DEGW was recognised globally for being experts in office design. However the strength of the practice was to draw principles and conceptual frameworks from our work on offices to be relevant at all scales from a chair to the city. The Practice wasn't straight jacketed by thinking within the confines of building types. The role of strategic client adviser, that DEGW had initiated, was recognised as the distinctive role of Design Brief Manager, balancing the expectations of the client (demand) and the supply side construction and property industry (Blyth and Worthington 2010). From 30 years of practice a robust set of principles, concepts and tools have been identified that were central to the work of the practice.

Principles and Concepts

A principle is defined as a proposition that serves as the foundations for a system of thinking or behaviour. Concepts are defined as a general idea derived from a specific experience. For this paper I have drawn out four propositions that underpinned the unifying principles and concepts for the practice.

1. Designing with Time in Mind

Buildings, neighbourhoods and cities are organic and continuously adapting to the changing demands of those who use them over time. Stuart Brand in *How Buildings Learn: What happens after they're built* (Brand 1994) describes the adaptations and additions made through the life cycle of a building, contrasted with the ambitions of architects to design buildings as objects. At the scale of the city and metropolitan region Richard Sennett in his think piece for the BMW Herbert Quant Foundation (Sennett 2016) describes the city as an open system in continuous unstable evolution. In describing what makes great urban places he suggests they thrive on ambiguity, paradox and are often seemingly chaotic and out of control. They reflect an edginess of uncertainty and the freedom to continuously adapt.

Frank Duffy in his doctoral dissertation undertaken at Princeton (Duffy 1975) provided a conceptual framework which later underpinned DEGW's approach to briefing and design. The Concept of the four S's, Shell, Services, Scenery and Settings, disengaged the long-term demands of the building shell from the services, fit out and space management within (Exhibit 2). Over time three further S's were inserted: The Site, which is timeless: The Skin, facade of the building upgraded on a 25 year cycle; and Systems, the communication systems which were renewed every three years and have now became mobile and disengaged from the building.

Jeremy Meyerson in the introduction to Design for Change (DEGW 1998) wrote "Thirty years on, Duffy's thesis is still the only one I know that is uncomplicated enough to be explained in two minutes on the back of an envelope, yet remains enormously relevant to today's buildings and organisations".

At the urban neighbourhood level the Premises Ladder (Exhibit 3) conceived in work undertaken by DEGW and URBED for the Department of the Environment (DOE) matched the stages of a firms development from infancy, through youth to maturity, related to the firms values and the type of premises required. (Worthington 2001)

2. Matching Supply and Demand

Fundamental to all DEGW's work was the relationship between Demand and Supply. Demand; represented by the user; the organisation and its members which own and inhabit the building, neighbourhood or city. Supply; represented by the providers of the real estate and associated services (Exhibit 4). There is a continuous tension between the demand and supply side. The client and users' needs (demand) continuously change at the same time the building which is fixed must be supportive. The two are reconciled during use and either the organisation must adapt to fit the building or the building must adapt to meet the needs of the organisation.

By the 1990's as the recession receded and Information technology became ubiquitous, with miniaturized, mobile and cheap computing "new ways of working" were being established (Worthington 1997). Companies such as IBM recognised they had been nearly strangled by long term commitments to their buildings compared with the short term flexible leases of the emerging firms such as Microsoft or the infant Amazon (Exhibit 5). The new paradigm for real estate delivery was as much concerned with the quality of services and amenity provided as the

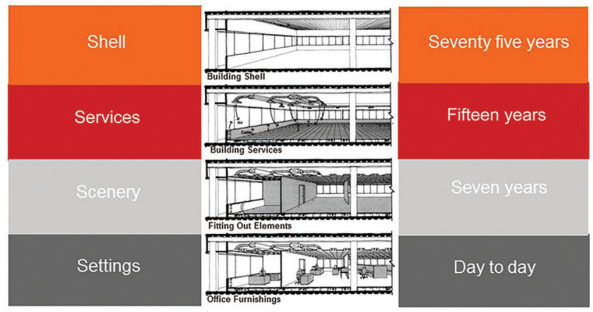


Exhibit 2. With time in mind: Layered decisions from shell to adaptable settings. Source: Duffy; Princeton dissertation 1975

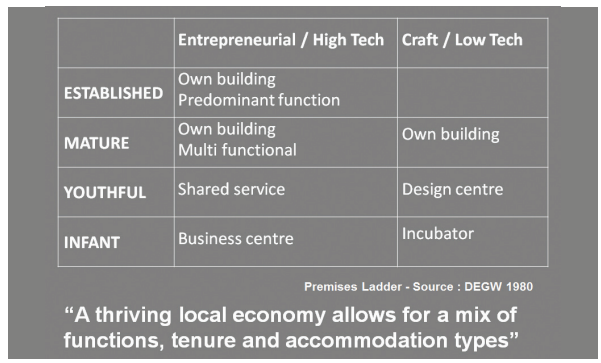


Exhibit 3. Premises Ladder: Healthy local economies match the stages of a firms development to the appropriate premises. Source: DEGW/Urbed 1980

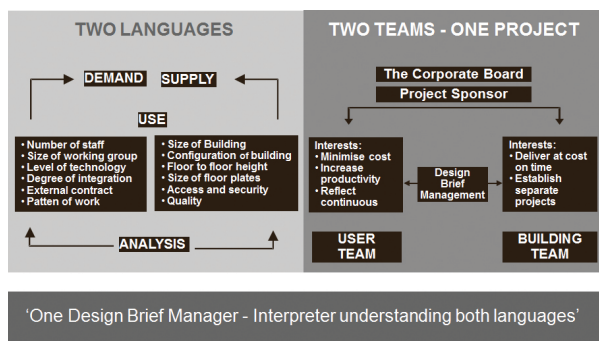


Exhibit 4. Matching Demand to Supply: Integrating contrasting expectations. Source: DEGW 1985

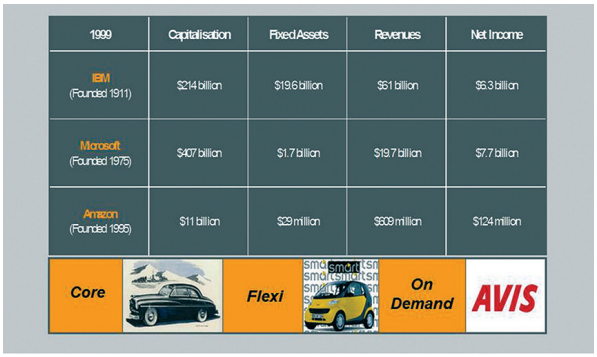


Exhibit 5. Changing Property perceptions: Shifting from fixed to variable costs. Source: John Worthington 1999



Exhibit 6. New paradigm for real estate delivery: Integrating process and product. Source: DEGW 1996

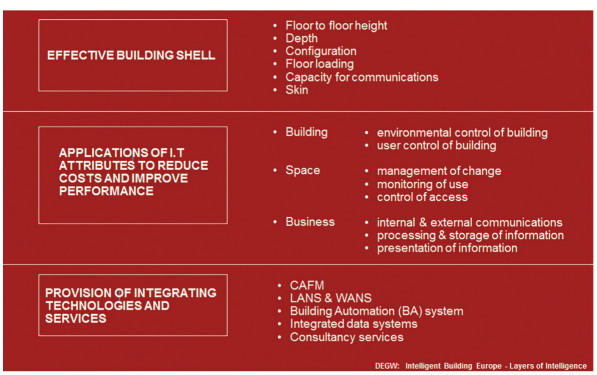


Exhibit 7. Building Intelligence reflects integrated hierarchy of the appropriate functions. Source: DEGW Intelligent Building Europe(IBE) Multi Client Study 1992

availability of space (Exhibit 6). The value of office space required an integrated delivery system which both delivered the building and continued to manage it. The objective was to allow corporations to create a portfolio of accommodation that provided a mixture of: core buildings which defined their organisation; flexible, 5 year leases, they could grow and contract within; and space "on demand" they could use on an "as required" basis (Worthington 2001). Innovative interior planning and design was required hand in hand with innovation in management (Blyth and Worthington 2001a)

The Intelligent Building Europe (IBE) multi-client research project (DEGW/ Teknibank 1992) examined the changing relationships between organisations, buildings and Information Technology (IT). The IBE model unlike previous models focussed on the building's occupants and their tasks rather than on computer systems. The model (Exhibit 7) centred on the occupiers concern for:

- Building management, the management of the physical environment using human (facilities management) and IT (building automation and monitoring) systems
- Space management, the effective management of space to facilitate change and minimize operating costs over time
- Business management of the organisation's core business activities, a combination of the processing, storage, presentation and communication of information.
- The quality of a building's intelligence relied on three integrated and layered attributes:
- Common sense: The design of the building shell to allow for long-term adaptability and change
- Appropriate functions to reduce costs and improve the use of space and the performance of building

management, sufficient to meet the immediate needs of the user and with the ability to add or remove features as demands change.

- Integrating technical and managerial systems needed to integrate and maximize the performance of the users (people), technology (processes) and building (place)

3. Capturing Value by Selecting the Appropriate Solution

Value is more than the financial cost of a commodity. It is dependent on the values of the individual or organisation. "What we value stems from what values we hold and what we choose to value …. Positive value exists for any player when they get more in their own terms than they must give up" (Saxon 2005). The subjective nature of value covers not just exchange value, it can also reflect, use, image, culture, environmental and social values.

The Intelligent Building Europe (DEGW and Teknibank 1992) identified four types of buildings that responded to differing user values, (Exhibit 8) representing:

- Exchange value, buildings designed to maximize their value as a commodity to be traded
- Use Value, buildings designed for an owner occupier to maximize their value for utilization by the end user
- Image value, designed to maximize the iconic value at the expense of functional utilization
- Business value, designed to support the effective working of the organisation.

The type of building chosen by an organisation reflecting the values of the organisation at a moment in time. One of the central concepts emerging from ORBIT 2 (Becker etal 1985) was that not only are organisations different from one another, but each organisation has different needs at different stages of

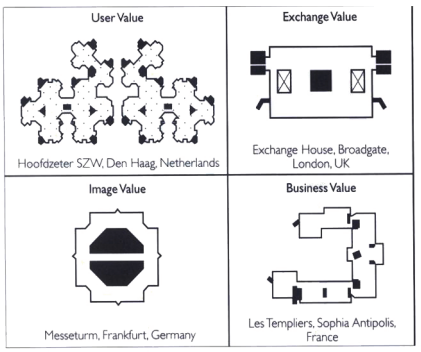
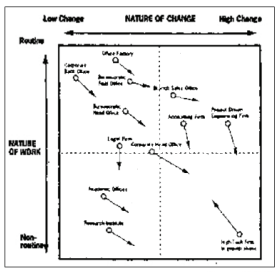


Exhibit 8. Value depends on values. Source: IBE Study 1992

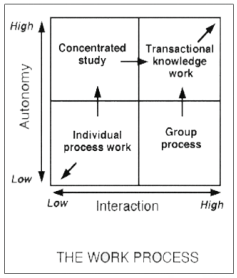
their life cycle reflecting changing external or internal pressures (Exhibit 9). Organisations were defined by: the Nature of work, the predominant processes undertaken and the physical settings required (Exhibit 10). The speed of change reflected the volatility of the organisation. The mantra of the early 1980's commercial office market was "one building type fits all". DEGW recognised that organisations varied in the work they were undertaking and that their work, in turn, required different patterns of space occupancy, the requirement for which impacted on the choice of building typology, defined by the depth, configuration and height between floors.

Eleven Contemporary office Buildings Compared (DEGW / Rosehaugh Stanhope 1985) assessed the ability of 11 office buildings in the City of London to meet the demands of the recently deregulated Financial Services Sector against sets of criteria reflecting: Accessibility and Image; Quantity of space available; Configuration and planning potential of floors; Building services and flexibility; Amenities and Availability. The comparison was of schemes recently completed or under construction. The purpose of the comparison was not to assess how the buildings were constructed but to understand the capacity of each of the buildings to accommodate the expectations of the new kinds of City organisations. The criteria used reflected the expectations of the post deregulation financial services sector. Sectors with different requirements such as solicitors', accountants,' or insurance brokers,' would have highlighted the appropriateness of distinctive types of buildings and services.

The study changed the perceptions of the property industry by recognising that the use and business value of a building was as important as its exchange value. Eleven Buildings compared was the precursor of a Building



Source: Orbit 1



Source: DEGW

Exhibit 9. Organisations demands and values change through time. Source: DEGW Orbit 2 1985

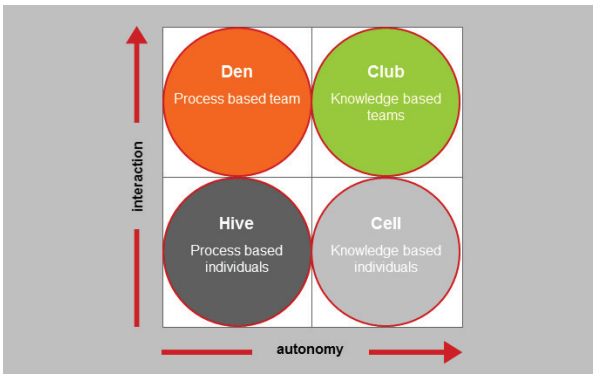


Exhibit 10. Organisational demands reflect the processes undertaken and the physical settings required. Source: DEGW The Responsible Workplace 1993

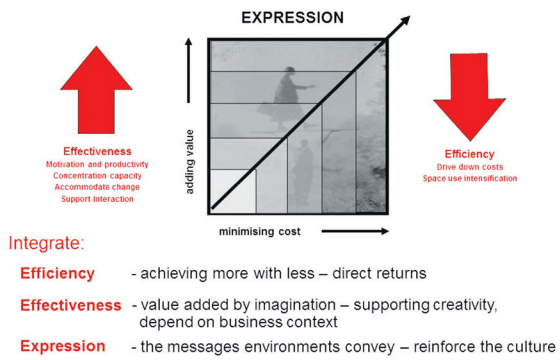


Exhibit 11: Business value reflects tangible and intangible attributes. Source: DEGW 1995

Appraisal methodology which changed perceptions in the property industry and empowered the occupier (Harrison, Loe, Read 1998).

DEGW over a number of years evaluating and measuring different spatial and organisational types recognised three critical attributes in measuring performance and subsequently value (Exhibit 11):

- Efficiency: the easiest attribute to measure but often the one that has the least impact on organisational performance and long term financial success, efficiency measures tend to concentrate on the driving down of immediate costs by using less space and human resources.
- Effectiveness: Improving productivity by increasing the sense of well-being, achievement, communication and teamwork. In a knowledge-based economy, these attributes are harder to quantify but have a major impact on the long-term, stability and success of the organisation.
- Expression: The ability to express identity and transmit ideas and ideals. These gains are reflected predominantly through qualitative measure. They are the least transparent and the most slippery to measure.

Expression is increasingly recognised as a key attribute of place, the characteristics combining to provide a distinctive and unique experience – that makes space become place. To create place requires both the design skills to make meaningful, adaptable spaces and the facilitation skills to ensure the spaces become enjoyable places that are appropriated, used and loved over time.

4. Understanding Change

To stand still eventually leads to atrophy, and decline. The development of information technology since the 1950's has witnessed ever more rapid growth and change, as the technology reduces in price and increases in power. DEGW as a practice committed to design, believed in buildings of quality that are made to last, whilst also being concerned to support organisations which relied on innovation and continuous adaptation. "The tension between buildings – made to last - and the transient activities that go on inside them" was the focus of DEGW's 40 years of practice (DEGW 1998).

Change can be long term, seismic and transformational, or short term, incremental and transitional. For DEGW designing for change was viewed as a continuous process of management and moderation. Change is both physical and perceptual. Cities as well as physically growing and adapting can change in the way we perceive them. In the last 40 years our perception of the city has shifted from a concentric unified centre to a polycentric system of networked centres (Worthington and Lipton 2003).

DEGW identified that the process of managing change is more a cyclical, than a linear process. In understanding what to build, engage the team starting the new project in the post occupancy evaluation of a previously completed project, so taking forward learning from past experience (Harrison, Wheeler and Whitehead 2004). Similarly begin with small transitional projects that will gradually change perceptions and behaviour. Selecting and gradually purchasing furniture to test new ways of working will build confidence and smooth the move into the new building (Worthington/DEGW 2006).

The solutions we choose to meet a problem can be both virtual and physical. The two types of space are complimentary, virtual space being convenient and efficient, whilst physical space is meaningful and symbolic (Duffy 2008). In 1996 DEGW Twijnstra was commissioned to establish a new learning centre for Shell's global senior managers (Blyth and Worthington 2001b). The brief was to find either an old castle or a new office building within 45 minutes of Schiphol airport. The solution was to select a recently completed Holiday Inn. During the week it was to be used by Shell. At weekends and over the long summer vacations, by digitally changing the logos and signage, the building reverted to a resort hotel. The result – intensive and effective use over 7 days a week, 52 weeks a year – achieved by overlapping the use of space and time, so maximising resources and returns, to the benefit of both parties (Exhibit 12).



Exhibit 12: Shell Learning Centre: Maximizing resources and returns trough integrated thinking. Source: DEGW Twynstra 1996

From DEGW's underlying principles, what lessons can we learn to manage the process and successfully accommodate change?

- Layer the process – separating the shell and the fit out;
- Provide capacity – with a loose fit that gives a sense that activities can adapt and change;
- Provide for a fluidity of functions;
- Zone the space so there's different types of space and capacity for different levels of service provision;
- Focus on accessibility and sub-divisibility and provide positive space with meaning that makes you want to respond.
- Provide for continuous evaluation and feedback through reverse briefing
- Let the business become the project

... Work backwards; learn through pilots; pace the process; and think about people.

... Work towards an interactive process reflecting both organisational and building

... Coupled with intelligent, imaginative design, adding up to a memorable place

John Worthington; DEGW First Annual Founder's Lecture; London 2003

Bridging the Gap

Four themes have been presented which were central to DEGW's culture and practice. The concepts which resulted did not only imbue the ethics and methods of the practice, but have impacted disciplines and professions across the Built Environment. The concept of Shell, Services, Scenery and settings (The 4 S's) originating from Frank Duffy's Princeton dissertation, has influenced commercial office industry standards for shell and core (British Council of Offices/CABE 2006) as well as impacting other sectors such as education and health (Prasad 2008).

Design has been defined earlier as encompassing products (buildings) and processes (innovations in ways of working). This inclusive definition accepts that to capture the full value from investing in new or adaptive construction the opportunity should be grasped to rethink the ways of operating (Exhibit 13) (Worthington and Lipton 2003).



Exhibit 13: Maximize benefits by integrating spatial and organisational design. Source: DEGW 1997

What are the implications for the education and practice of designers of the built environment? In a contribution to *Changing Architectural Education: Towards a new professionalism*, Nicol and Pilling, I argued that that in architectural education there was a need to develop a distinctive knowledge base in respect of the perceived areas of greatest value to clients and users (Worthington 2000). Design thinking could provide the skills required to become the integrator across disciplines, scales and time. Design education nurtures an inquisitive, open and holistic way of thinking. It provides the understanding for: Problem seeking; Concept defining; Solution framing and creating meaning. In *Excellence by Design* the authors (Horgon, Joroff, Porter and Schon 1999), reflecting on their experience of workplace design make a convincing case for an integrated design approach that brings together space, organisation, finance and technology.

In reviewing the role of architectural practices I concluded that some of the highest value services and advice are provided outside the core of the design and construction process (Exhibit 14) at the pre and post-project stage. Referencing DEGW's own experience (Worthington 2000) it is clear that the role of "integrator" is one to which the design professions might aspire. The integrator draws together people, process and place to create holistic environments and recognises the project as the "client's long term success" as distinct from the "design of the building" (Hassell 2013)

Today 15 years later the professions are still largely separated into their independent silos with a division between design and production, and process and product. However new centres of education for built environment designers are emerging such as : The University of the Arts London, Spatial practices programme within Central St Martins (Http://www.arts.ac.uk/csm/courses/our-programmes/spatial-practices) or The University of Reading's

new School of Architecture (http://www.reading.ac.uk/architecture) hosted by the School of Construction Management and Engineering; Henley Business School (Real Estate and Planning) and the School of Arts and Communication (Media and Communication).

The essential principles and concepts that defined DEGW were developed in the 1970's and established and honed over a twenty year period (1980-2000). Throughout that period a commitment to design and the desire to integrate physical form and organisational innovation imbued the practice. In the last 10 years I have become engaged as a collaborative urbanist with managing the processes of urban change, working across disciplines, between professions, and with cities and their citizens (The Academy of Urbanism. 2011). UniverCities (Exhibit 15) a concept developed in my time as a director of the Academy of Urbanism (AoU) provided a framework to bring together the disparate agents involved to create a lively, diverse and thriving city. They encompassed the communities of learning, living and practice, which were engaged at three levels: The formal, statutory authorities and professional institutions; the informal, civic societies and communities of practice (Wenger, McDermott and Snyder 2002); and the virtual, such as community websites.

Urban development is a collaborative process of managing and moderating change, with the joint goals of stimulating sustainable economic success, whilst ensuring an equitable distribution of resources. The city in continuous dialogue with business and civil society has a long term role to play as Master developer (Worthington 2015). TU Delft in partnership with the City of Rotterdam and Erasmus University has since 2002 provided a post-experience 2 year part-time MSc programme (Master City Developer) for professionals from different disciplines and city stakeholders working together (de Jonge 2015).

The High Value services are increasingly outside the core of the Design and Construction Process

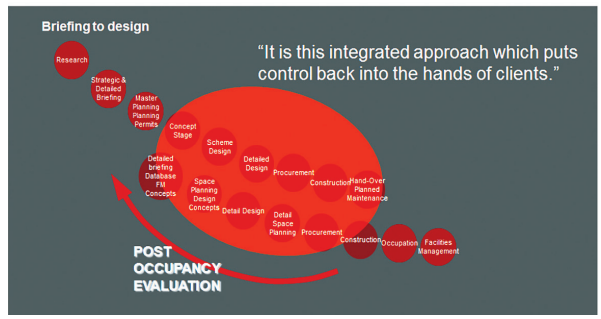


Exhibit 14: Expanding Range of Services: High value services outside design and construction. Source: DEGW 1997

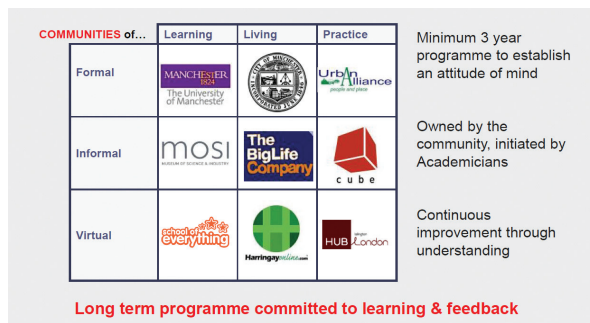


Exhibit 15: UniverCities: Creating places which learn and improve. Source: The Academy of Urbanism/Worthington 2010

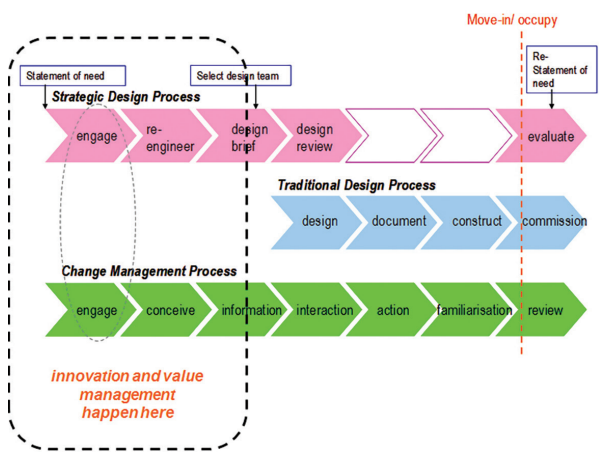


Exhibit 16: The DEGW Legacy: Providing a unique position in design and delivery. Source: DEGW Aecom 2012

Faculties of the Built Environment with Architecture (design) and Management (process) at the core, have the opportunity to address the paradox of the client who wishes for both the magic of innovation through design, and the minimization of risk achieved through management. Frank Duffy when RIBA President noted the "need (for architects) to be prepared to devote as much design imagination to managing their relations with clients as they devote to crafting their clients' buildings" (RIBA 1985). Schools of Architecture and Built Environment, such as TU Delft, which embrace collaboration between disciplines and the integration of thinking give hope that the gap is closing. DEGW's[J2] legacy to the Built Environment disciplines was to identify a unique position for design in the delivery process (Exhibit 16)

The final word is left to Frank whose insights were a beacon for DEGW's conceptual thinking.

Trust the users, abandon supply-side thinking, prioritize sustainability, take advantage of technology and we will have a fighting chance of getting cities we can enjoy, of building the knowledge-based culture our economy needs and, let's hope, of saving the planet at the same time.

Frank Duffy; Work and the City (2008)

John Worthington, MBE, is co- Founder of DEGW. His academic positions include Professor of Architecture and Director of the Institute of Advanced Architectural Studies at the University of York (1992-97), Graham Willis Professorship, University of Sheffield (1998-2008), Visiting Professor Chalmers University of Technology, Gothenburg (1999-2002) and Professorial Fellow at the University of Melbourne (2006-10).

He was partner at DEGW Twynstra (1997-2002). Since 2002 he has been a Board member for London Thames Gateway Development Corporation, Chairman of CABE/ RIBA Building Futures, Chairman of the City of Dublin Urbanism Advisory Panel, and Director of the Academy of Urbanism.

Currently he is a Commissioner of the Independent Transport Commission, leading the review of the spatial impact of High Speed Rail.on



From left to right: Hans de Jonge, Alexandra Den Heijer and John Worthington in Melbourne, 2007

References

Allinson. (1993) *The Wild Card of Design: A perspective on Architecture in a project management environment*; Butterworth Architecture, Oxford

Arkesteijn and Volker (2016) *The Power of Pluralism for Urban Strategies*;

Becker et al. (1985) *Orbit 2 Executive Overview*; Harbinger Group Norwalk. CT

Blyth and Worthington. (2001a) *Managing the Brief for Better Design*; Turid Horgen, Briefing for the changing workplace. First edition, Spon, London

Blyth and Worthington (2001b) *Managing the Brief for Better Design;* Susan Stuebing, Briefing for adaptable use. Second edition, Spon, London

Blyth and Worthington. (2010) *Managing the Brief for Better Design;* Second Edition, Routledge, Oxon

Brand. (1994) *How Buildings Learn: What happens after they're built*; Viking, New York

British Council of Offices/CABE. (2006) *The Impact of Office Design on Building Performance*; CABE, London

DEGW/Rosehaugh Stanhope. (1985) *Eleven Contemporary Office Buildings: A Comparative Study*; Research report prepared by DEGW at the request of Rosehaugh Stanhope. DEGW Archive, University of Reading.

DEGW Designers for Change. (2014) Power point presentation, DEGW Archive, University of Reading

DEGW. (1998) *Design for Change: The Architecture of DEGW*; Birkhauser/ Watermark, Basel

DEGW/Teknibank. (1992) *The Intelligent building in Europe*. Executive Summary, British Council of Offices, Occasional Paper 3. London

De Jonge (2015) *City Making in the 21st Century*; Paper, The City as Master Developer, Urban Design Journal 135, UDG, London

Duffy. (1975) *Office Interiors and Organisations: A comparative study of the relation between organisation structure and the use of interior space in sixteen office organisations*. Ph.D Princeton University; USA

Duffy, Cave, Worthington (1976) *Planning Office Space*; The Architectural Press, London

Duffy. (2008) *Work and the City*. The Edge Futures, Black Dog publishing, London

Eley and Worthington. (1984) *Industrial Rehabilitation: The use of redundant buildings for small enterprises*; Architectural Press, London

Harrison, Loe, Read (1998) *Intelligent Buildings in South East Asia*; Part 1 Intelligence in Buildings, Part 3 Evaluating Intelligence pages 131 – 151. Spon/Routledge, London

Harrison, Wheeler, Whitehead. Eds/DEGW (2004) *The Distributed Workplace*; Spon, London

Hassell (2013) *Multitudes*; Chapter 1. John Worthington; Expanding the Design Agenda; Uro Media, Melbourne

Handy. (1994) *The Empty Raincoat: Making sense of the future*; Hutchinson, London

Horgen, Joroff, Porter, Schon (1999) *Excellence by Design: Transformation of workplace and work practice*; Wiley, New York

Prasad (2008) *Changing Hospital Architecture*; Chapter 2, Managing hospital change: lessons from workplace design; RIBA Publishing, London

Pullen (2001) *Flexibility in the workplace: instrumental or creative?* Paper Journal of Corporate Real Estate, Vol 3 No 2, Henry Stewart Publications, London

Rittel and Webber (1973) *Dilemmas in a general theory of planning*; Paper, Policy Sciences Vol 4 Elsevier Scientific Publishing Company. (Reprinted in Cross (Ed). (1984) *Developments in Design Methodology*. Wiley, Chichester

RIBA (1995) *Strategic study of the Profession: Phase 3 & 4: The Way Forward;* RIBA, London

Saxon (2005) *Be Valuable: A guide to Creating Value in the Built Environment*; Constructing Excellence, London

Sennett. (2016) *The Public Realm*; Paper for BMW Quant Foundation, home page www.richardsennett.com

The Academy of Urbanism. (2011) *Urban Identity, Learning from Place 2*. Routledge, Abingdon.

Urban Design 135 (2015) Worthington (Ed) Topic *The City as Master Developer*

Wenger, McDermott and Snyder (2002) *Cultivating Communities of Practice: A guide to managing Knowledge*; Harvard Business School Press, Cambridge

Worthington and Orbasli (1995) *Architecture and Town Planning Education in the Netherlands: A European Comparison*; Institute of Advanced Architectural Studies, The University of York

Worthington (1995) *Professional Futures: Continuous learning through research and practice*, Paper Construction and Building Education and research Beyond 2000, Orlando, Florida.

Worthington. (1998) *Reinventing the Workplace*; Architectural Press, Oxford

Worthington. (2000) *The changing Context of Professional Practice*; Chapter 2. Nicol and Pilling (Eds) Changing Architectural Education: Towards a new professionalism; Spon Press, London

Worthington (2001) *Accommodating Change- Emerging real estate strategies*; Paper, Journal of Corporate Real Estate, Vol 3 No 1, Henry Stewart publications, London

Worthington and Lipton (2003) *Making Change Work: Design as a catalyst for organisational innovation*; John Worthington, DEGW First Annual Founder's Lecture, Response Sir Stuart Lipton. DEGW Archive, University of Reading

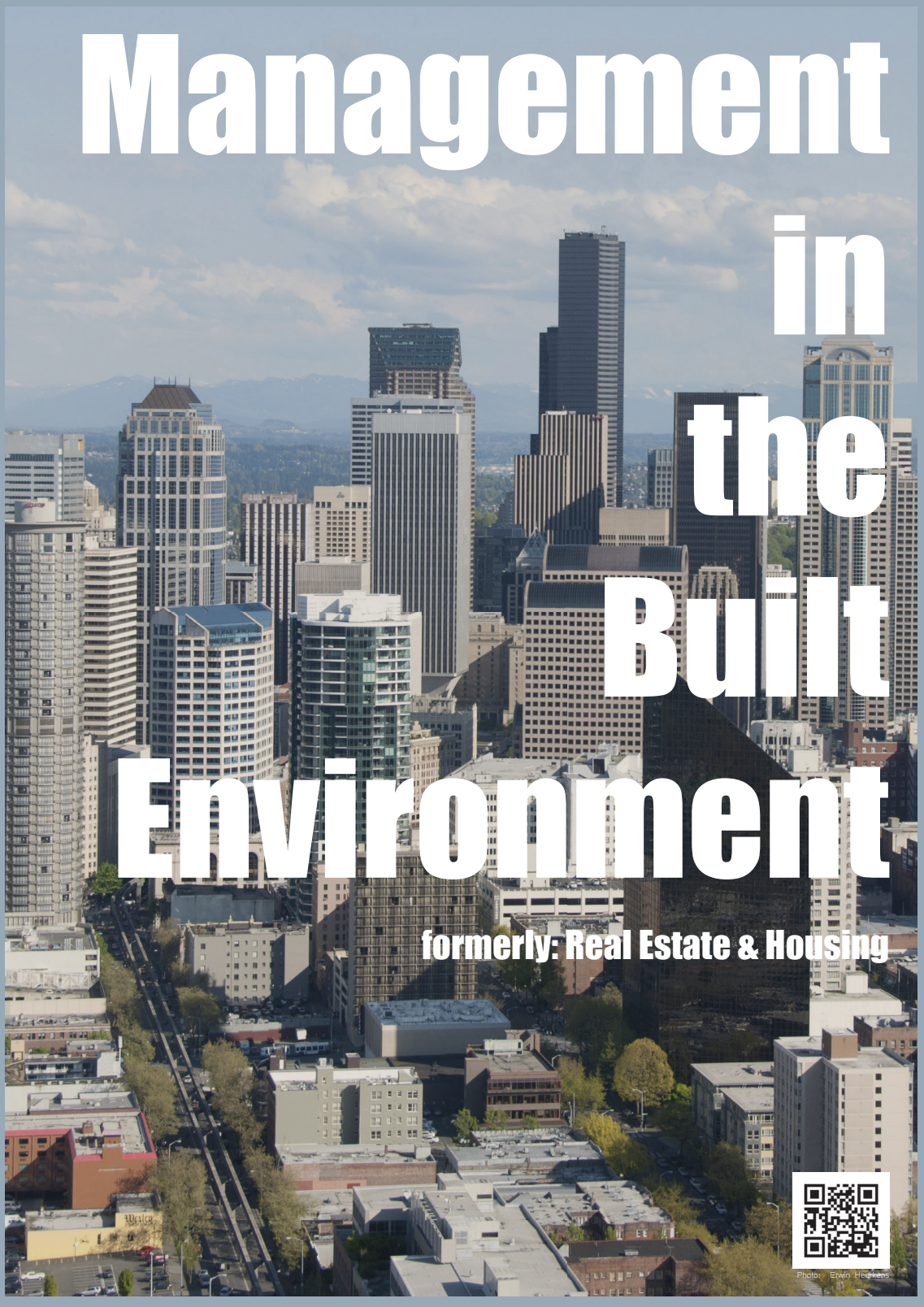
Worthington/DEGW (Ed). (2006) *Reinventing the Workplace*; Tony Thompson,Supporting Organisational Change and Adryan Bell, Making Change Work; Second Edition, Architectural Press, Oxford



John Worthington joining the PhD defence committee of Dr. Alexandra den Heijer in 2011

Management in the Built Environment

formerly: Real Estate & Housing



The development of the educational MSc. programme: from BMVB and RE&H to MBE

Matthijs Prins and Fred Hobma

Origins and start of the educational programme

Officially the Department of BMVB ('Bouwmanagement & Vastgoedbeheer', in English: Real Estate & Project Management) started in September 1992 as a consequence of the demand from professional practice for a broader study profile at the Faculty of Architecture. More specifically, as stated in the first lustrum book of the Department Vijf jaar Bouwmanagement en Vastgoedbeheer' (5 years of BMVB; Krumm, P. red., 1996, DUP, Delft), the origins of the Department can be dated back to the report of the so-called "Verkenningscommissie", installed by the Minister of Education in 1987 to assess the programs of the Delft and Eindhoven Universities of Technology. In their first report, this committee formulated task profiles, one of them being 'project and process manager'. The committee stated that the faculty, with 80-90% of the students finishing their studies in the field of design, did not sufficiently respond to the market: less than 50% of the faculty's graduates actually got a job as an architect or urban designer. A statement which still has its relevance today.



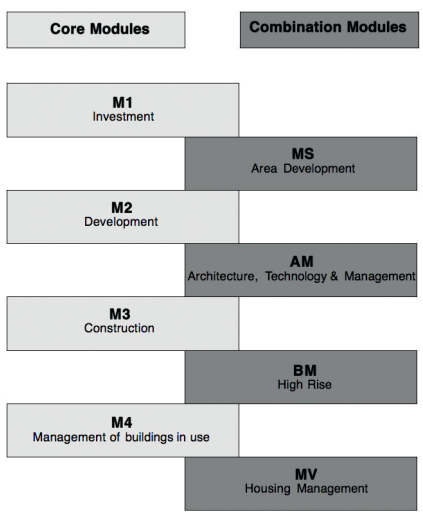


The leading principles for our new curriculum are to strengthen its scientific base, and to provide a program in which students orientate themselves along the full width of the domain and also have sufficient possibilities to specialize themselves.

The final report of the committee (1989) advised the Minister to reform the entire architectural education in the Netherlands. A turbulent period started in which both faculties of architecture (TU Delft and TU Eindhoven) chose to continue and finally were provided with the possibilities to do so. The Faculty of Architecture of the Delft University of Technology explicitly made the choice for a broader educational profile, which resulted in the start of the Department of Real Estate & Project management, currently called Management in the Built Environment (MBE). Hans de Jonge was appointed as one of the enthusiastic founders of the new Department and its educational programme. For many years, Hans chaired the Department with a strong will to build and maintain a flourishing community of researchers and lecturers.

European influences

At the same time, more or less in line with the above, the European Commission on Architects' education finalised the so-called 'Article 3' Special requirements, which are still valid today. The requirements refer to the education of architects in the member states of the EU, such as: insight in social, client and users factors when realising architectural projects, attention for the human factors in relation to the built environment, and the ability to realise projects within the constraints of budgets and legal/organisational requirements combined with insight into procedures and processes of decision making. A few years later, based on the UIA (International Union of Architects) rules as well, the BNA (Royal Society of Dutch Architects) came up with similar requirements and wishes.



The Departments first educational program: the 'comb structure'

BMVB: The Department's first curriculum (1992-2001)

Due to the perseverance of the initial chairs Hans de Jonge and Bas Menheere, early staff members like Hans Baller, Sjoerd Bijleveld, Kees Gerritse, Ep Huttinga, Frits Seyffert, Jo Soeter and Hans Valk, and the enthusiasm of the first students and participating professionals from practice, the new Department of BMVB grew rapidly. Initially the educational programme was mostly economic and cost based and constructed from modules taken from the existing Architects curriculum and the faculties of Civil Engineering and Philosophy and Social Sciences. However, already in its first year the Department rapidly developed its own specific graduation programme.

The Comb

Characteristic of this first curriculum of BMVB is its interrelatedness with Architecture, Urbanism, Technology and Social Housing in the so-called combination-modules (AM, BM, MV, MS). Besides these combination modules the Department had its own specialized core modules (M1-4), each representing the managerial aspects of one specific phase of the real estate life cycle: Initiative, Preparation, Construction and Use. The core modules had an emphasis on the acquisition of knowledge, the combination modules an emphasis on insight and skills. Simulation games were used to train students in very realistic settings. This program, that was based on three months periods, is often referred to as 'The Comb'.

Actually this initial period provided an undivided five year program, with two years of generic design training and a three year specialization in five tracks, including Real Estate & Project management . This was vital to the profile of a design based management curriculum. In the first years the program attracted so many students that it rapidly became the second largest program in the school.

RE&H: The Department's second curriculum - Introduction of the BSc/MSc structure

From 1999 the Department was forced to a quick adaptation to the new Bachelor-Master structure (BaMa): the EU Lisbon agreement wanted a EU harmonisation of educational systems that would facilitate international exchange of students. This entailed introducing a new diploma structure as well as a new semester based curriculum. More or less at the same time the Department of Real Estate and Project management merged with the Department of Housing. Three new themes were added to the curriculum: Design Management (as an articulated part of Design & Construction Management - DCM), Urban Area Development (UAD, later renamed as Urban Development Management, UDM, as part of Real Estate Management - REM) and Housing (H). The change to the BSc-MSc system also entailed a change from a system with a two year base program and a three year specialization into a three year BSc program followed by a two year specialization leading to a MSc degree. A new name of the Department was chosen: Real Estate & Housing (RE&H). Real Estate & Housing also became the name of one of the four tracks within the MSc Architecture, Urbanism and Building Sciences. Thus, the faculty chose for one MSc holding four tracks.

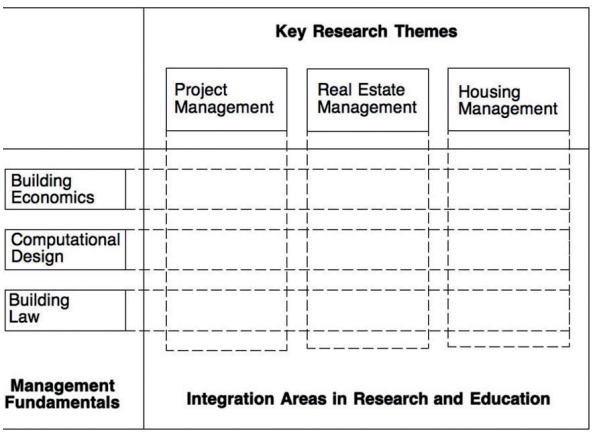
A sharp rise in the number of staff employed at the Department followed. Because of the change to the 'BaMa' process, the graduation period was shortened from three to two years. For the Department these adaptations entailed a range of major changes for the organisation, the research programme as well as the educational programme.

Matrix Structure
The Department developed a matrix structure of its organisation around the three full chairs (Design and Construction Management, Real Estate Management, and Housing) and three so-called 'Constituting Fundamental Disciplines': Building Law, Building Economics, and Building Informatics.

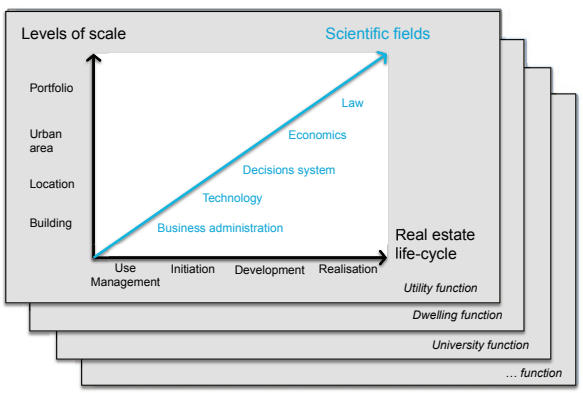
Taxonomy
In terms of the taxonomy of the domain, there was a gradual shift from a primarily life cycle oriented perspective to a broader formulated integration perspective, as depicted in the figure below. This new approach more adequately addressed the different scopes of the variety of interests and groups within the Department and reflected broader developments within the research domain and profession.

Taxonomy of the RE&H domain

The combination modules of 'The Comb' got lost in the redesign of the curriculum (except the 'BM' combination, also known as 'High Rise', which still exists as a free elective till today). The different MSc tracks focused on their own core programme as a result of a shorter, two-year MSc track. In terms of both education and research the new programmes were modelled on the Department's new organisation scheme in which the three main full chairs were leading with the fundamentals as prime integration areas.

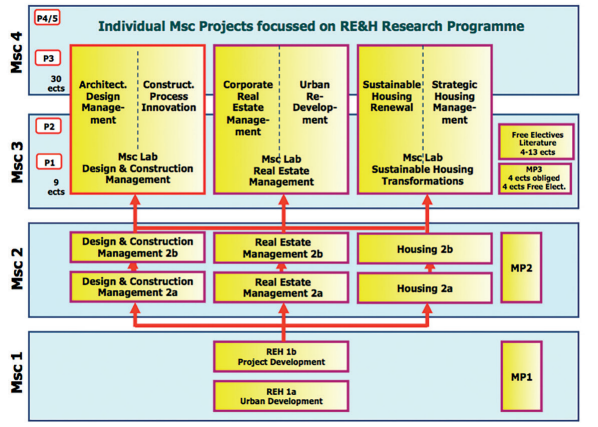


Matrix structure of the RE&H Department, with three full chairs and three fundamental constituting domains.



Taxonomy of the RE&H domain

Leading principles for this new curriculum were to strengthen its scientific base, providing a program in which students must orientate along the full width of the domain, but must also have sufficient possibilities to specialize themselves. Problem-oriented learning was introduced and the time schedule was based on semesters. The broad orientation was given in semester 1, specialization (intended to be foremost skills based) into one of the three main focus areas in semester 2, and a laboratory based individual research graduation project in semesters 3 and 4. In 2002 the new program, as depicted in the figure below, was implemented for the first time. The Master curriculum had to be offered in English from that time on.



RE&H curriculum after the BaMa reorganization.

The Department's third curriculum 2010/2011

In 2008 it was decided to start with the development of a new MSc curriculum. The main reasons to start developing a new curriculum were to solve the problem of fragmentation and, connected to that, loss of didactical integration as well as a reduction in manageability and quality assurance of the curriculum. On the other hand there were demands from practice as well as the international research arena to have a stronger focus on integrating capabilities; a need for more in depth knowledge acquisition, more specifically on the separate knowledge areas of the Department, without losing the broad focus on the domain of RE&H as a whole; increasing the scientific level; a better international profile and last but not least a financially more feasible programme.

The new curriculum

The new developed curriculum started in the educational year 2010-2011, and was based on the 'drivers for change' stated above.

The first semester of the new curriculum has a strong focus on knowledge acquisition. As opposed to past times, the



The new 2010/2011 curriculum of RE&H.

'constituting fundamental domains' (Economics, Law, Informatics) now, within the MSc education, also each have their own part within the Management Fundamental series.

The second semester of the curriculum is even more focused on integration according to our taxonomy of the domain, but didactically it has an accent on skills acquisition. First by experiencing practice roles and secondly by describing, analysing, researching and improving practice based professional behaviour.

Within the third semester students start to formulate their individual graduation research proposal within one of the three main focus areas of RE&H (DCM, REM, UDM, H). Independent in this context means that the individual research proposal of the student must comply with explicit parts of the research projects of RE&H research staff. This model was enforced in 2015 with the introduction of 'thematic graduation'. The three former laboratories merged into one, which made it easier to strategically connect graduation students to actual research projects of the Department.



The current MBE curriculum

The fourth semester of the study is totally focused on the individual graduation research project of the student. Regularly and in almost all cases, the graduation research is executed in close collaboration with a company in practice which provides a case based environment and utilisation directed reflection. The significant growth of graduation work presented in international scientific conferences the past few years shows the Department has taken steps into the right direction. Some students even published their graduation work into commercially available books, which got several re-prints.

From RE&H to MBE

Around 2012 more and more staff members of the Department felt that the naming of the Department needed a change. Indeed, the Department hosted more than just the sections of Real Estate Management and Housing. Other sections were not represented in the name Real Estate and Housing. However, the search for a new Department's name was not an easy one. Some staff members were still satisfied with RE&H. After all, RE&H was an established 'brand' and one should be careful with a new brand name. Eventually, the Department's management decided to hold a questionnaire amongst staff members. The outcome was that most staff members preferred the name 'Management in the Built Environment'. One of the perceived plus-points of the name 'Management in the Built Environment' is that several programmes/tracks around the world have the same name. The change of name had no implications for the educational programme; the course programme remained unchanged. For students, the newly named MSc track MBE started September 2015.

Course evaluations

Systematic evaluation provides important feedback for lecturers. At present, an impressive system of course evaluations

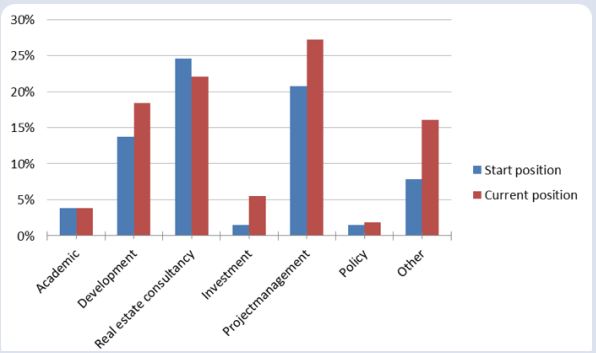
is institutionalised. The Faculty of Architecture and the Built Environment has a Department of Quality Assurance, which staff performs surveys among students. Every course is evaluated. If courses score below par, an improvement plan must be implemented. Further, once students have graduated, they will receive an 'exit evaluation'. This allows for a student's view of the master programme. Moreover, study association BOSS organises round table discussions for every course. During the round table, students and staff discuss the strong points and points for improvement of all courses.

Hans de Jonge placed great importance on the round table discussions and took care he was present at meetings where his courses were discussed. As always, Hans would listen carefully to the students and take many notes by pen in his notepad. Hans's own energetic lectures and dynamic chairmanship of workshops were always very much appreciated by students. The results of continuous improvement of courses are very satisfying for the MSc track. The recent Exit Questionnaire (April 2016) has shown graduated student highly value RE&H/MBE's MSc track. The track was awarded grade 8,1. This is the highest grade of all tracks within the faculty!

The 'output' of the MSc track: alumni

Alumni can be seen as the 'output' of BMVB/RE&H/MBE. As far as quantity is concerned, in 2015 a total of 1600 alumni were counted. This encompasses all students who graduated in 'management' including Housing (the former Department 'Volkshuisvesting') in the period between 1970 and 2015.

This massive group has been subject of regular research by staff member Peter de Jong. His most recent research has revealed the sectors in which the graduates are employed. The following table shows start position and current position.



Careers of graduates from Master track Management in the Built Environment

Professional profile MBE alumni, source: MBE graduation administration/LinkedIn BOSS Alumni | Real Estate & Housing (MBE) | TU Delft (https://www.linkedin.com/groups/138916). Elaboration: Rosan Pallada, Jeroen Meijler and Peter de Jong. Reference date: 2015. Research amongst 1600 graduates.

The division of 'current positions' of alumni is:

Academic career within the sector	4%
Project development	18%
(Corporate) real estate management/consultancy	22%
Real estate investment and finance	6%
Projectmanagement	27%
Policy	2%
Other	16%

The numbers show that the vast majority of alumni ends up in the private sector.

In addition, a recent report (I. Pit, F. Pliakis, How are our alumni doing? Faculty of Architecture and the Built Environment, May 2016) revealed that:

- 93% of graduates finds a (well paid) job on contract within 6 months after graduation;
- The track offers the highest job guaranty and quickest career path compared to other tracks;
- Salaries of alumni are excellent: 33% earns between € 60.000 and 96.000 after 5-10 years.

Judged by these numbers about alumni alone, we can say that the MBE Mastertrack is a success. It goes without saying that Hans, being professor and (for many years) head of Department, was a frequent and highly esteemed speaker at alumni events. Indeed, for many students and alumni he was the face of the Department and MSc track.

The future of the MSc track

Although the MSc track BMVB/RE&H/MBE has a solid reputation amongst students and in practice, there are a number of challenges ahead. One of them is to enlarge the number of international students. In the past years, the number of international students has risen, but only very slowly. Currently, internationals make up around 10% of the track's student population. In this respect, the track considerably lies behind other tracks within the AUBS master.

Another challenge is the 'competition' from 3TU Master Construction Management and Engineering (CME). This master at the TUD is based at the Faculty of Civil Engineering and Geosciences. The educational programme is oriented towards the management of large infrastructure projects. Several of its courses are quite similar to MBE's courses and involve topics like project and process management, finance and organisation. Fairly many students with a bachelor of Bouwkunde decide to continue their studies at CME and thus do not choose for MBE. On the upside, we can conclude that the departure of students from their 'home' (bachelor) faculty to another (master) faculty proves the success of the Bachelor-Master structure. On the downside, however, it means that there needs to be an influx towards MBE from bachelor students from other faculties (and universities). This, however, proves to be difficult due to the requirements of a transitional educational programme for students from other faculties and universities.

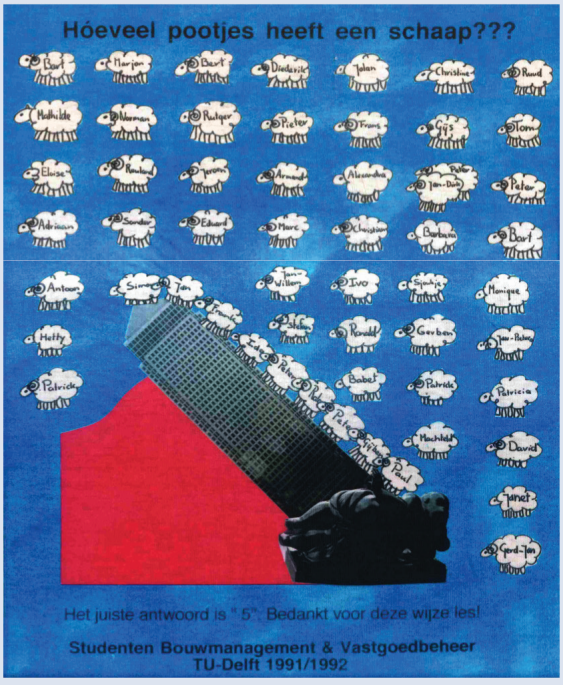
Despite of the challenges ahead, the future of the MSc track looks bright. It has a strong national base and has few national and international competitors: it still is one of the few management masters on top of a design bachelor. Increasingly, international students value this combination. Although there are numerous adaptations over time in terminology and focus areas, the basic and proven philosophy of the Department considering its educational mission did not drastically change since its establishment as it initially was designed by Hans de Jonge and his colleagues at the start.

Dr. Ir. Matthijs Prins is associate professor of Design and Construction Management at the Department of Management in the Built Environment, Faculty of Architecture TU Delft, and MSc coordinator of this department from 2001 until May 2015.

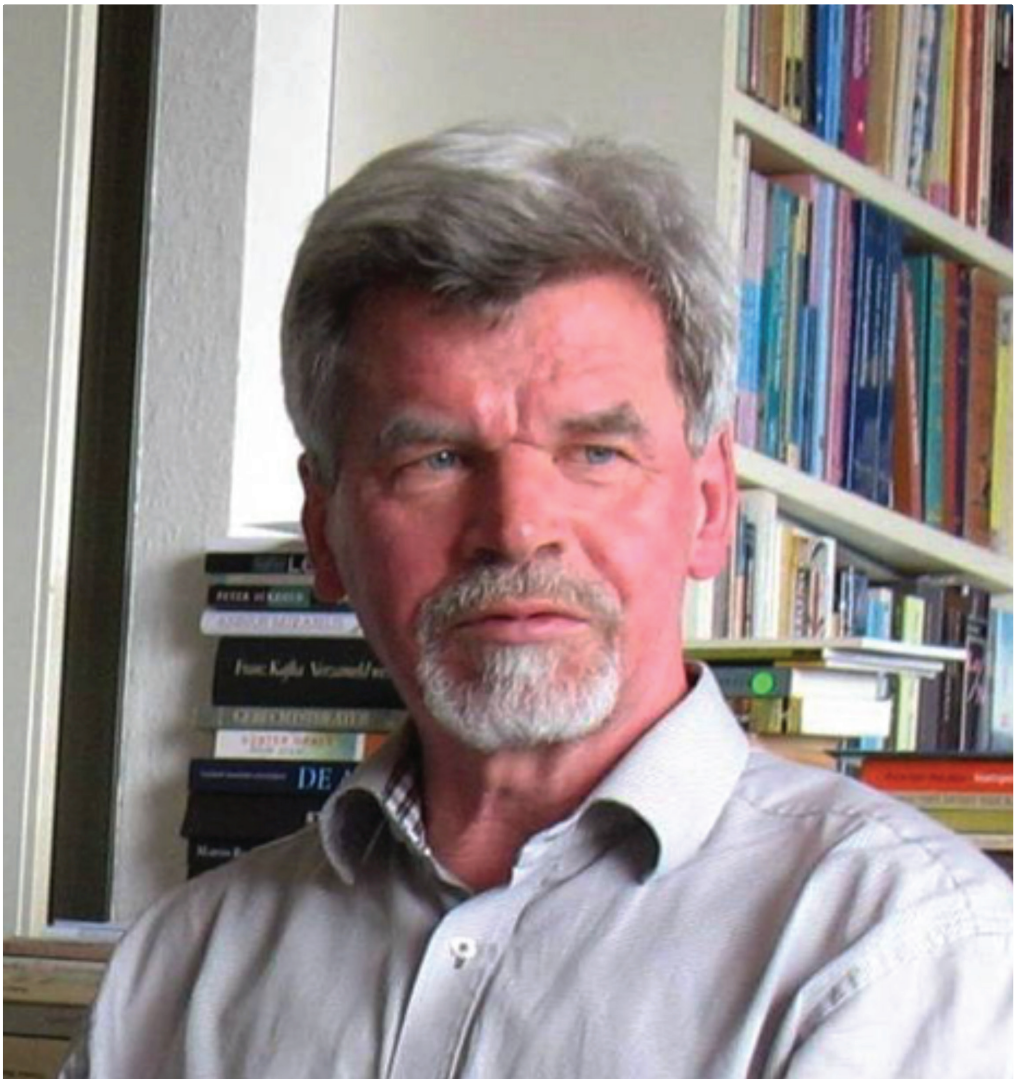
Mr. Dr. Fred Hobma is associate professor of Building Law at the Department of Management in the Built Environment, Faculty of Architecture TU Delft, and MSc coordinator of this department since May 2015.



Hans de Jonge and Alexandra Den Heijer with BOSS on study trip to Korea in 2012



Gift to professors from first group of BMVB students



In memory of Jo Soeter

Theo van der Voordt and Monique Arkesteijn

In the early seventies of the past century our Faculty of Architecture included just two graduation profiles: Architecture and Urbanism. Under pressure of the students, in 1973 they got the opportunity to focus the 4th and 5th year of their study on Social Housing. This profile payed much attention to user needs and design projects with the end users involved. In the late sixties, prof. Dolf Hendriks, a building economist working at the EIB Economisch Instituut voor de Bouwnijverheid in Amsterdam, also payed much attention to user demands. He lectured inter alia about the resistance of tenants to large scale urban renewal projects and building expensive new houses that were not affordable to the current tenants and which destroyed existing spatial patterns and social networks. Jo Soeter was a staff member of Hendriks at that time. Delft students attended their lectures as well. In 1994 Hendriks was also appointed as a professor at the TU Delft. Jo Soeter followed him to Delft in 1976.

Due to a reshuffling of the departments a new Department of Designing, Planning and Management of Buildings ('Ontwerp, Planning en Beheer van gebouwen', OPBG) was established in 1986, including Building Economics (Soeter, Bijleveld), Building Informatics (Bridges, Van Loon) and Assessing User Needs (Van der Voordt, Van Hoogdalem, Van Wegen, Vrielink). Teachers in the courses on "Cost Effective Design" and "Architecture and Costs" insensively collaborated with Kees Gerritse, Maarten Korpershoek and Hans de Jonge, who was a guest teacher at that time. Many students were interested in these topics and wanted to learn more about real estate management, costs, organisation of design and construction processes, market research, feasability studies etc. When under pressure of a governmental audit committee in 1989 (see the contribution by Prins and Hobma) a new graduation profile was established of real estate and project management, various OPBG staff members started to prepare a new graduation track. Jo Soeter was one of them and became a strong ambassador to create a new track and a new department. In 1988 Jo became a member of the faculty board with HRM and Finance in his portfolio. This gave him a strategic position to support the founding of a new Real Estate & Project Management department. The rest is history.



Photo from the article of Jo Soeter about the future of RE&H, in BOSS 15 years.

From the start on Jo was very active in our department, as a teacher and researcher, a fraternal coach, the tutor of hundreds of graduation students, and a member of our daily board for many years. He was able to explain economic theory very well in connection to practice and guided "his" students in a very personal way. He pointed out continuously the importance of creating value instead of focussing on costs. During several decades he pleaded for re-use and transformation as alternatives to new construction. In his PhD thesis on the Building and Stock Economics 1990-2025 and the yearly projections for the construction industry he foresaw the present vacancy problems already many years ago. Jo was an inspiring teacher for students and a wise counsellor for his colleagues.

This text is partly based on the paper "Waar komt RE&H vandaan? Waar gaan we naar toe?" written by jo Soeter and published in BOSS Magazine no. 31, September 2007, pp. 9-10.

Jo Soeter passed away in June 2015, completely unforeseen, at the age of 70 years. We will ever remember his efforts and support and his warm personality with great gratitude.



Jo Soeter singing in the inauguration party of Hans' chair in 1992



Jo Soeter and his wife Henny (right) with Alexandra den Heijer and Hans de jonge at Alexandra's defence ceremony.



One of the favourite places of Jesse Michael Keenan: Kiyosumi Garden, Koto Ward, Tokyo, Japan.

Reflections on the ‘Delft School’ of Real Estate

Jesse Michael Keenan

Real estate departments in the U.S. come in three varieties. They are a collection of urban economists who understand capital markets and tend to aggregate in business schools. They know the ins and outs of investment and portfolio analysis and the general implications of real estate allocations for institutional investors. However, they understand very little of real estate in its material manifestations, and therefore, their ability to appreciate value in all of its abstractions is dangerously constrained. This is because concepts of asset and urban life cycling, spatial quality and even operational performance - which they reduce to a function of cash-flow - are intrinsically defined by architecture. Architecture is a field economists render non-scientific.

The second variety of real estate departments is an offshoot of urban planning departments made up of physical planners and civil engineers. These faculty know land development, infrastructure, tectonics, and performance. However, in reciprocal terms, these scholars are disconnected from the forces of power and capital that define the operational constraints of planning work. More fundamentally, these faculty lack the foresight to move across scales. To the contrary, an over-reliance on market forces undermines that necessity for normative product innovations and the idea of creating markets - not just following them. This



Real estate is not an ecology of urbanism, but has to make a finite systematic registration of human and organizational agency leveraged by technology, design and science.

means that over-reliance on market forces undermines that necessity for normative product innovations and the idea of creating markets - not just following them.

The final category of departments are those that are often found in architecture and design schools. They distill real estate finance to its most fundamental elements. After all, discounted cash flow analysis—whether for a partnership waterfall or a debt obligation—is not all that conceptually or technically difficult to master. Focusing on

fundamental aspects of real estate finance disavows the necessity to exalt financial engineering, and gives the curriculum (and the research) more space to explore where economy intersects form, space and place. After all, financial engineering is more or less a game of football where you never let the football hit the ground. Capitalism has long been observed to float as aimlessly as the irrationality of markets. Yet, real estate is fundamentally about the sheltering of people and commerce, and the necessity to stay safe and warm is about as rational of an interest as one can otherwise define. So it is that the departments of real estate draw the connection between capital and material.

Impact of Hans de Jonge

Professor De Jonge's contributions to real estate education have had global impacts and implications. Not only did he unite disparate traits of professional practice and intellectual thought, he added the critical aspects of human agency and management to the field. Scientific management had always been taken for granted as a field relegated to construction management or facilities operations - it was an after-thought. However, as the life cycle of buildings, portfolios and urban areas began to be recognized as a fundamental scaled-anatomy of multiple economies, the varieties of scholarly real estate outlined above seemed to be entirely inadequate. De Jonge recognized that real estate is not an ecology of urbanism, but made a finite systematic registration of human and organizational agency leveraged by technology, design and science. Prior to this point in time, real estate was conceived of having a fixed asset life. Architecture had, of course, sheered its layers of organic decomposition. Yet, real estate never internalized this knowledge and insight. Drawing an analogy to medicine, the transition of thought in real estate shifted from that of a first aid technician to a surgeon. This shift was not inevitable. Many generations of professional bodies had no incentive to give up ground to a more precise, hybrid practice.

Professor De Jonge's own entrepreneurial ambitions were inextricably tied to his recognition of a hybrid practice. As a loyal public servant engaged in private enterprise, it was also about a trajectory that translated along urban scales, household stability, spatial quality and many of the attributes of the built environment that serve the intimate details of domestic policy. In popular dialogue we tend to attribute urban planning for engaging these details. However, urban planning has largely served to limit negative real estate. Professor De Jonge showed us that positive real estate could do far more to contribute to the welfare of a country. This is not a capitalist or neoliberal argument, as the complexity of urban area development has truly broken down public private roles in ways that are counter-intuitive to old lines of thought. As the Netherlands has transitioned in terms of demography and economy, professor De Jonge's vision for a sustainable built environment has endured. It is utility over luxury. It is value over return. It is principled real estate that will sustain the test of time and trend.

For this contribution, professor De Jonge's Delft School of thought has had immense impact on scholars and practitioners of the built environment. Real estate studios are increasingly being recognized as invaluable pedagogical exercises. Design thinking has moved from en vogue rhetoric to practical management processes. Understanding physical aspects of real estate and urbanism, and reciprocally developing financial and management facilities with architects is the new wave of American education and professional registration. While professor De Jonge is not a household name or a famous textbook author (yet), his influence among American, European and Asian built environment scholars and practitioners is hard to fully appreciate.

My hope is that professor De Jonge memorializes his experience in a book and a textbook so that future generations of historians can bear witness to a scholar and practitioner who demanded more from our professional practices and public policies. When these actors failed to deliver, he single-handedly created a department and a field of study to cultivate future generations who could live up to these standards. I am very honored by his guidance and inspiration. Although unintended, it was no accident that my literature searches paralleled his own production. Likewise, it was no accident that I have gravitated to many of the fine scholars that professor De Jonge has supervised and mentored. I am deeply indebted to Saskia Sassen for bringing us together. My only hope is that in my career I will be able to sufficiently advance the field of real estate in homage to professor De Jonge's legacy, and to the Delft school of real estate thought.

Dr. ir. Jesse M. Keenan is a former PhD candidate of Hans de Jonge and a member of the faculty at the Graduate School of Design at Harvard University.

Real Estate Management



Part of the REM staff (May 2015): front row from left to right Ilir Nase, Theo van der Voordt, Salomé Bentinck, Alexandra den Heijer, Philip Koppels, and Danielle Haring (secretary); row behind, from left to right: Ruud Binnekamp, Peter Barendse, Herman Vande Putte, Hans de Jonge, Hilde Remøy and Flavia Curvelo Magdaniel

Corporate and Public Real Estate Management

Theo van der Voordt & Monique Arkesteijn

Real Estate Management from an end user's point of view – the demand side - regards the management of the buildings and portfolios of organisations for whom real estate is not their core business but an asset to facilitate their business processes. In case of private organisations this type of REM is called Corporate Real Estate Management, abbreviated as CREM. In Successful Corporate Real Estate Strategies (Dewulf et al., 2000) the editors define CREM as "the management of a corporations' real estate portfolio by aligning the portfolio and services to the needs of the core business (processes), in order to obtain maximum added value for the business and to contribute optimally to the overall performance of the corporation" (Krumm et al., 2000). In case of buildings and portfolios of public authorities, i.e. real estate owned or rented by ministries, municipalities and other governmental agencies, we speak of Public Real Estate Management, abbreviated as PREM (see for instance Van der Schaaf, 2002; Evers et al., 2002; and the annual Social Real Estate Barometers of Veuger, 2013, 2014, 2015. Real Estate Management from an investors' point of view – the supply side – regards the acquisition, exploration and disposal of real estate by organisations for whom real estate is their core business. Its main aim is to supply and manage real estate that fits with market needs, in order to make a return on investment.

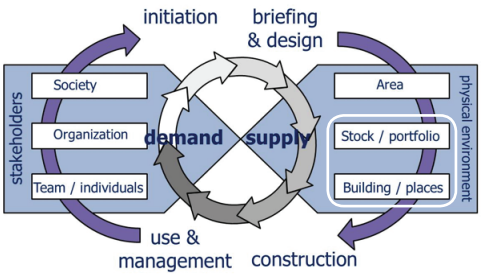


Our focus is on real estate as a facilitator of business processes, an enabler of human needs, and ways to align real estate strategies with organisational strategies, to get the best possible fit between demand and supply and to add value through real estate.

Delft: focus on Corporate and Public Real Estate Management

When Hans de Jonge was appointed as professor of Real Estate Management and Development, he decided to focus on CREM and PREM and leave the supply side of REM and Real Estate Finance to the Amsterdam School of Real Estate. Together with his colleagues he designed a new curriculum at the Faculty of Architecture of the Delft University of Technology (see the contribution by Prins and Hobma). He also started a successful international course on successful CREM strategies that attracted renowned speakers and a mixed audience of academics and practitioners. The contributions of the speakers and other experts have been published in the book Successful Corporate Real Estate Strategies (Dewulf et al., 2000). Furthermore, staff and PhD research projects were started, with Peter Krumm being the first one who devoted a PhD to the CREM policies of seven Dutch multinationals (Krumm, 1999). Many other PhD theses would follow (see the last section of this Liber Amicorum with an overview of all PhDs that were (co)supervised by Hans de Jonge and the brief summaries of these PhD theses.

There are various reasons to give so much attention to corporate real estate from an end users' point of view (Dewulf et al., 2000). Most Western countries have been progressing from an industrial to a post-industrial information society, with a strong service sector. Globalisation, changing political systems, and economic and demographic developments have led to growth, shrinkage and mergers of organisations. Fast, mobile, and affordable Information and Communication Technology (ICT) stimulated new ways of working with increasing flexibility regarding when, how and where to work, resulting in new office concepts. These organisational and contextual changes have an enormous impact on the demand for real estate, both qualitatively and quantitatively, in all sectors: offices, education, retail and leisure, health care, and the industry. Incorporating flexibility and adaptability in new and existing buildings and scenario analysis are nowadays widely used strategies to cope with an uncertain future. Within this dynamic context, corporate real estate managers have to steer on usability, effectiveness, efficiency, sustainability, ways to express corporate identity in a well-balanced way, and ways to balance the current and future needs and interests of different stakeholders.



Visualisation of CREM as a discipline that aims to create the best possible fit between demand and supply during the whole life cycle of buildings, portfolios and areas, taking into account the needs, interests and conditions from different stakeholders (adapted from De Jonge et al., 2009). The REM section focuses on the scale levels of portfolios, buildings and places.

According to Joroff et al. (1993), the traditional role of a the corporate real estate manager as a 'taskmaker' - with a focus on providing physical space and technical maintenance - has shifted towards a more strategic role, with a cumulative integration of understanding and minimising real estate costs ('controller'), standardisation in order to create financial value and flexibility ('dealmaker'), matching real estate with business plans of the units and market options ('intrapreneur') and contributing to the company as a whole by focusing on the company's mission ('business strategist') (see also the contribution of Joroff and Becker in this Liber Amicorum). In the field of public real estate, a similar shift is going on. Here, too, attention is increasingly paid to the political, financial and functional performance of the real estate portfolio and its strategic role (Van der Schaaf, 2002; Evers et al., 2002; Veuger, 2015). Alignment with the corporate strategy is key to achieve optimal results.

While real estate resources were initially controlled and managed by the individual corporations and public authorities, activities and responsibilities are nowadays often outsourced to shared service centres and professional parties outside the organisation. Van der Schaaf (2002) described a shift from decentralised real estate management with a focus on facilitating primary processes towards integration of Facilities Management (FM) and CREM in centralised shared services (Van der Schaaf, 2002). Introducing a user-pay system aimed at a more efficient use of accommodation. Due to the many similarities between CREM and Facilities Management (FM) many experts expect that CREM/FM will converge into a united discipline that will increasingly be integrated with IT, HR and Finance (Van der Voordt, 2016).

Aims and objectives of the Delft REM research

Professional corporate and public real estate management requires scientific knowledge about the best possible fit between the objectives, structure, culture, and activity patterns of the organisation on the one hand, and solutions for accommodating people on the other hand, including site selection, building layout, spatial concept and interior design. Criteria for a best fit include, inter alia, the contribution of real estate to business performance, client, customer and end user satisfaction, labour productivity, creativity and innovation, health and safety, cost effectiveness, value of assets, and sustainability. A complicating factor is the dynamics of society and organisations, whereas buildings are rather static. It often occurs that even before a building is finished the organisation and its processes have already changed drastically. Clients, designers and real estate managers have to cope with many uncertainties. Adaptability is needed to cope with change. Scenario techniques may help to forecast future developments.

To develop an appropriate body of knowledge, insights are used from various disciplines such as (strategic) management, architecture and urbanism, business administration, economics, law, mathematics, technology, and (environmental) sociology and psychology. By this multidisciplinary approach, the REM section aims to contribute to:

- A better understanding of the real estate market and the spatial impact of context factors, economic and demographic change, trends on the labour market, organisational change, changing activity patterns and work flows, and technological innovations in communication.
- Identification of performance criteria regarding spatial quality, access for all, user satisfaction, productivity, health and well-being, affordability, cost effectiveness and sustainability, in a complex and dynamic market of individuals, commercial companies, not for profit organisations and public authorities;
- Identification of probable, possible and desirable real estate interventions to create the best possible match between supply and demand;
- Ways to add value by real estate to organisations, individuals and society as a whole;
- Ways to cope with vacancy and dynamics in the demand for real estate;
- Theories and empirical evidence on how to design, implement, monitor and adapt successful accommodation strategies, performance measurement and management, and adding value by corporate and public real estate;
- Tools to support innovative and evidence-based multi-actor decision-making by clients, developers, investors, architects, engineers, consultants, policy makers, product developers, contractors and end users in planning, briefing, design, management and use of the built environment.

Main REM themes

Since the creation of the REM section in 1991, the research and education focuses on the phases prior to design (initiation, briefing, defining performance criteria, stakeholder analysis) and after construction (maintenance, renovation, transformation, adaptive reuse). Furthermore, it focuses on the non-residential building sector, with a particular attention to offices, accommodations of higher education, and health care facilities. Due to our roots within the Faculty of Architecture and the Delft University of Technology, the functional aspects of real estate are taught and studied in combination with its economic and financial dimension.

Our education and research about the techniques to align real estate with the expectations of its users is organised along three subjects:

- The expectations of the real estate user and his criteria to judge real estate performance;
- The real estate object in general and the properties that have an impact on the user in particular;
- The management techniques used to organise the matching, on different levels of decision-making, from operational to strategic.

The coming years, four research topics will be central in our research program:

1. Real estate management techniques

This part of the REM research program aims to further explore theories and tools to align real estate with the users' expectations and preferences. Over the last years', significant progress has been made in this field. Key issues are how to design, implement, monitor and revise an appropriate accommodation strategy, and how to align public and corporate real estate on different levels of scale to the vision, mission and objectives of the organisation, its stakeholders and society. It is our ambition to contribute to the convergence of different management schools and to develop approaches that deal with the huge variety of management concepts. A second goal of the research on real estate management techniques is the development of tools that incorporate existing knowledge on real estate use in alignment processes.

2. Value added by real estate

Adding value by real estate is hard to prove. Due to the simultaneous impact of many internal and external factors, it is often unclear which elements of real estate objects contribute to the performance of the organisation and the objectives and preferences of various stakeholders. This part of the REM research program intends to further explore the concept of adding value by real estate, to operationalise the many dimensions of added value, and to prove the impact of real estate interventions on profitability, productivity, user satisfaction, sustainability and competitive advantage. As such it aims to make the added value of real estate better manageable and measurable in practice. After so many years of research on programmes of requirements, it was a logical step to investigate the concept of real estate adding value. to contribute to organisational performance,

3. Adaptability and adaptive reuse

As most of the real estate we need for the next 100 years is already there, scientific knowledge about adaptive reuse is of growing importance.. The third part of the REM section research programme aims at continuing and extending the research on adaptive reuse, developing a theoretical framework and models on adaptive reuse and its subthemes, comprising sustainability and life cycle approach, land use policy, urban resilience and governance, new use and financing models including a circular economy approach, adaptability, and future value. With this research, it is our ambition to improve the strategies to balance demand and supply in the office market, and reduce the tension between the static, slowly changing supply of real estate on the one hand, and the accelerating pace of changing user requirements on the other hand.

4. Data-collection

The coming years the REM section will also pay extra attention to the collection of valid and reliable data on real estate and its use. The involved researchers assume that the lack of sound data on the experience and use of real estate is at the source of the slow progression of this field of science.

REM-contributions to this Liber Amicorum

The findings of the REM section research are disseminated by many teaching activities, presentations at symposia and conferences, and numerous publications. In this Liber Amicorum only a small selection of our insights will be presented. Each sub-section starts with a contribution by one or more current REM staff members, and will be continued with related contributions from outside and inside the REM section:

1. Monique Arkesteijn explains the concept of alignment between corporate strategies and corporate real estate strategies. Furthermore she discusses different models and the legacy of Hans de Jonge and his team on this topic.
2. Theo van der Voordt shows an overview of the Delft legacy on adding value by CREM and how this topic has evolved and elaborated into various dimensions. How to manage and measure added value are key issues here.
3. Alexandra den Heijer presents her work on managing the university campus and related research projects. By asessing campus models, management models, best practices and smart campus tools this research aims to develop knowledge and tools on how to accommodate the current knowledge society effectively and efficiently.
4. Theo van der Voordt presents an overview of REM research into workplace management, the experience and use of activity-based workplaces, and its impact on employee satisfaction and perceived productivity support. In addition he discusses the findings from the Center for People and Buildings and the work of Duffy, Becker and others.
5. Hilde Remøy discusses the issue of vacancy and adaptive reuse. This theme includes the cause of vacancy in different sectors, and strategies to cope with vacancy in an effective and efficient way. For instance, adaptive reuse through renovation or conversion is discussed as a means to balance real estate markets. Moreover, developing flexible buildings that can easily be adapted to changing performance requirements, are discussed as part of a strategy for resilience of the built environment.
6. Ruud Binnekamp, Ilir Nase, Hilde Remoy and Philip Koppels discuss how preference modelling, computer-aided assessments of multi-actor needs and cost-quality research can contribute to a better alignment between the demand for real estate and the supply of real estate. This theme is related to building economics, assessment of the impact of location, building characteristics and the social and economic context on real estate market prices, value-in-use and value-in-exchange.
7. Herman Vande Putte discusses the alignment topic on the scale level of *Corporations and Cities*. Whereas the former themes mainly regard the best possible fit between corporate and public real estate and the needs of organisations, individuals and society, *Corporations and Cities* investigates the relation between the accommodation of large scale organisations and urban development and the potential and actual synergy and conflicts between the accommodation policies of cities and corporations

References

De Jonge, H., Arkesteijn, M.H., Den Heijer, A.C., Vande Putte, H.J.M., De Vries, J.C., and Van der Zwart, J. (2009) Designing an Accommodation Strategy (DAS Frame). Delft: Delft University of Technology, 2nd edition.

Dewulf, G., Krumm, P, and Jonge, H. (2000) Successful Corporate Real Estate Strategies. Nieuwegein: Arko Publishers.

Evers, F., C., Van der Schaaf, P. and Dewulf, G. (2002) Public real Estate. Successful Management Strategies. Delft: DUP Science.

Joroff, M.L., Louargand, M., Lambert, S. and Becker. F. (1993), Strategic Management of the Fifth Resource. Atlanta: Industrial Development Research Foundation. Report no. 49.

Krumm, P.J.M.M. (1999) Corporate real estate management in multinational organisations. A comparative analysis of Dutch corporations. PhD Thesis. Nieuwegein: ARKO publishers.

Krumm, P., Dewulf, G. and De Jonge, H. (2000) "What is Corporate real Estate?" In Dewulf et al. (eds.) Successful Corporate Real Estate Strategies. Nieuwegein: Arko Publishers.

Van der Schaaf, P. (2002), Public real Estate Management. Challenges for Governments. PhD Thesis. Delft: DUP Science, Delft.

Van der Voordt , T. (2016) Facilities Management and Corporate Real Estate Management: FM/CREM or FREM? Journal of Facilities Management. Forthcoming.

Veuger, J. (ed.) (2015) Barometer Maatschappelijk Vastgoed 2015 / Barometer Zorgvastgoed 2015. Assen: Van Gorcum.



Part of the REM staff (August 2016): front row from left to right Herman Vande Putte, Naif Alghamdi, Flavia Curvelo Magdaniel and Karin de Groot (secretary); row behind, from left to right: Ilir Nase, Ruud Binnekamp, Theo van der Voordt, Monique Arkesteijn, Salomé Bentinck, and Hilde Remøy.

Facts & Figures of the REM section

Theo van der Voordt

REM staff

The fluctuating composition of the REM staff can be found in the last section of this Liber Amicorum.

REM highlights

In the 25 years of its existence the Rem section was involved in a number of events that we experience as our highlights. The main highlights are listed below. Part of these highlights are not 1:1 connected to the REM section but linked to the whole department of Management in the Built Environment. However, because of the direct link with Hans de Jonge we included these highlights in the list below.

Although any PhD-defence is a highlight as well, we excluded them from the list and refer to the overview of Hans' PhD candidates and the summaries of their theses in the last section of this Liber Amicorum. Only those two REM staff members who finished a doctoral research and were not supervised by Hans de Jonge (Alexandra den Heijer and Ruud Binnekamp) are included in the list below.

Every publication of a paper in a renowned journal is perceived as a highlight as well. However, to limit the length of the list of highlights, we only included a number of renowned books, whereas journal papers, conference papers and book chapters have been excluded from the list. For our papers in inter alia Building Research & Information, Journal of Corporate Real estate, Corporate Real Estate Journal, Facilities, Journal of Facilities Management, Journal of European Real Estate Research, Design Studies and Cities we refer to the lists of publications at our website www.mbe.bk.tudelft.nl.

Externally funded REM research

Below we present a selection of externally funded REM research. We excluded small projects and funding from external teaching and management activities.

REM Highlights

Year	Topic
1991	Start of a new Real Estate & Project Management curriculum
1991	Start of the Building Organisation of Students Society B.O.S.S.
1991	Publication of the first issue of BOSS Magazine
1993	Monique Arkesteijn graduates as one of the first students of the new curriculum
1995	Start of the Real Estate & Project Management Alumni Foundation
1995	Conference on higher education accommodations
1995	First edition of a book on the financial aspects of real estate ('Vastgoed financieel')
1996	Good scores on relevance, quality, viability and satisfactory on productivity, Quality Assessment of research 1991-1996
1996	Conference on five years of Real Estate & Project Management
1997	Publication of The Office, the Whole Office and Nothing but the Office
1997-2010	Participation in the Delft Research Initiative Sustainable Urban Areas (SUA)
1997	Symposium Successful Corporate Real Estate Strategies
1998-2000	International courses on Successful Corporate Real estate Strategies
1998	PRC Bouwcentrum Award best MSc Thesis (Pity van der Schaaf)
2000	International book on Successful Corporate Real Estate Strategies (Arko Publishers)
2001	Start of the Center for People and Buildings
2002	Conference on 10 years of Real Estate & Project Management ('Shaping Change / Vormgeven aan verandering)
2002	Organisation of the National Renovation Award
2002	Good scores in the Assessment of Research 1997-2002
2002	Book Ways to Study Architectural, Urban and Technical Design (DUP Science)
2003	PRC Bouwcentrum Award best MSc Thesis
2003	CfPB book on Costs and Benefits of Innovative Workplace Design
2003	First MSc Textbook Introduction on Real Estate Management
2005	Book on Architcture in Use (Architecture Press / Routledge)
2005	Hans de Jonge awarded as the best TU Delft teacher of the year
2007	Book on Transformation of Vacant Offices (010 Publishers)
2007	First edition of Designing and Accommodation Strategy (DAS frame)
2007	Integration of Real Estate & Housing in BSc1; new reader on accommodating people and organisations.
2007	Very good scores on quality and relevance and good scores on viability and productivity in the Mid-Term Research Assessment Architecture and Building Science
2007	Merge with the Building Informatics section
2008	International Conference on Corporations & Cities in Brussels
2008	First prize IVBN Graduation Thesis Award (Anke Neecke)
2009	First prize CoreNet Benelux Student Award academic master students (Caroline de Vos)
2009	First prize IVBN Graduation Thesis Award (Ralph Muller)
2010	PhD defence of Ruud Binnekamp on Preference-based Design in Architecture
2010	Royal Award (Officier in de Orde van Oranje Nassau) for Hans de Jonge
2010	First prize CoreNet Benelux Student Award academic master students(Richa Singh)
2010	Design contest and exhibition BK City
2011	PhD defence of Alexandra den Heijer on Managing the University Campus.
2011	Excellent score on viability, very good scores on quality and relevance, and a good score on productivity in the Review Architecture and the Built Environment TU/e and TU Delft 2003-2009
2012	Signing of the Convenant Office Vacancy,June 27, a public-private initiative chaired by Hans de Jonge
2012	Book on Accommodation Management: from Strategy to Exploitation (Noordhoff uitgevers)
2012	Book on The Added Value of FM: Concepts, Findings, Perspectives (Polyteknisk Forlag, Denmark)
2014	Book on Sustainable Building Adaptations (Wiley-Blackell)
2014	First prize Corenet Benelux Student award 2014 post-master studenten (Henk Koster)
2014	First prize IVBN Graduation Thesis Award (Luc Baas)
2015	Appointment of Monique Arkesteijn as CoreNet Global board member
2016	Book on FM and CREM as Value Drivers: how to measure and manage adding value (Routledge)





In 2005 Hans de Jonge was awarded as the best TU Delft teacher of the year. In the photo at the bottom you see Hans with his proud father.

Selection of externally funded REM research projects

Year Financed by, *Subject* (Leading researcher(s))

Before 2000

1994-1996 Consortium of private companies, *The future of the office market* (De Jonge, Dewulf)
1995-1997 Consortium of private companies, *The future of the retail market* (De Jonge, Van der Toorn vrijthoff, Guyt)
1996-2000 Governmental Buidling Agency, *Office innovation* (De Jonge, Dewulf)
1997-2002 ABN AMRO Bank, *Flexible work spaces* (De Jonge, Dewulf, Vos)
1997-1998 TU Delft, *Evaluation of new office concept at Civil Engineering* (Van der Voordt)
1998-1999 FGH Bank,*Vacancy of office buildings* (De Jonge, Geraedts, Van der Voordt)
1998-1999 Governmental Building Agency, *Facility cost model* (De Jonge)
1999-2002 US Government, *Public real estate* (De Jonge, Van der Schaaf)

2000-2010

2000 Ministry of Housing and Spatial Planning, *Building prognoses* (De Jonge, Soeter)
2000 NS Railway organisation, *Location synergy* (De Jonge, Peek)
2000 MKB, *Position of small retailers* (De Jonge, Guyt)
2001-now Various public and private partners, *Contributions to the Center for People and Buildings* (De Jonge, Van der Voordt)
2002 University of Leiden, *University real estate* (De Jonge, Aalders)
2002 NETHUR, Housing and leisure (Kooyman)
2002 Public Works Canada, *Policies and practices* (De Jonge, Van der Schaaf)
2002 Ministry of Housing and Spatial Planning, *Utility buildings* (De Jonge)
2003 Vos Bouwdivisie, *Building stock and real estate market* (De Jonge)
2003 TU Twente & ICES Click, *Development of knowledge park* (De Jonge)
2004 HBO Raad, *CREM of Universities of Applied Sciences* (De Jonge, De Vries)
2004 Leiden University and Eramsmus University Rotterdam, *CREM of universities* (De Jonge, Den Heijer)
2006 Fontys Hogescholen, *CREM of Fontys University of Applied Sciences* (De Jonge, De Vries)
2010 Agentschap NL & Dutch assoc. of University Campus directors, *University real estate* (Den Heijer)

2011 - 2015

2011 Facility Management Nederland (FMN), *Added value of FM and CREM* (Van der Voordt, Prevosth)
2011 TU Delft, *Campus vision 2020* (De Jonge, Arkesteijn, Vande Putte)
2011 HOI network of Dutch universities, *HOI benchmark* (Den Heijer)
2011 BNA Research, *Conversion of vacant offices to care functions* (Van der Voordt , Remøy)
2011 Municipality of Almere, *Impact of public commissionership* (De Jonge, Van der Vegt)
2012 Albert Schweitzer Hospital, *Hospitality of hospital buildings* (Van der Voordt, Prevosth)
2012 FMVG TU Delft, *Strategic real estate portfolio management* (Arkesteijn)
2012 Radboud University, *The desirable scale of housing with care* (Van der Voordt)
2012 CPI, *Knowledge cities* (De Jonge)
2012 Ministry of Internal Affairs, *Transfer of ownership of governmental musea* (De Jonge, Arkesteijn)
2013 Atelier Rijksbouwmeester, *New life in old buildings* (De Jonge, Remøy)
2014 FMVG TU Delft, *UniverCity* (Den Heijer)
2014 Raad voor de Leefomgeving, *Governmental real estate strategy* (De Jonge)
2014 DMR, *DMR User experience of building and environment* (Bentinck)
2014 EU - Horizon 2020, *Sustainable Building Adaptation - WASTE* (Remøy, Binnekamp, Heurkens)
2014 EU - Horizon 2020, *ERA-NET on Smart Urban Futures* (Den Heijer)
2014 FMVG TU Delft, *State of the Art Real Estate Management* (Arkesteijn)
2015 Municipality of Rotterdam, *Evaluation of office convenant on vacancy* (Remøy)

2016

2016 Albania, *Administrative-Territorial Reform* (Nase)
2016 3 TU - Lighthouse, *Digital Integration Platform* (Den Heijer)
2016 ClimateKIC, *ClimateKIC: Façade leasing* (Den Heijer)
2016 Ministry of OC&W & VSNU, *Campus NL* (Den Heijer, De Jong, Arkesteijn)
2016 DFB/HOI, *Smart Campus Tools* (Arkesteijn, Den Heijer, Valks)



In 2010 prof. Hans de Jonge received a Royal Award (‘Officier in de Orde van Oranje Nassau’) for his valuable contributions to society at large and to education, research, valorisation, consultancy and debates in the field of real estate management.

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REAL ESTATE

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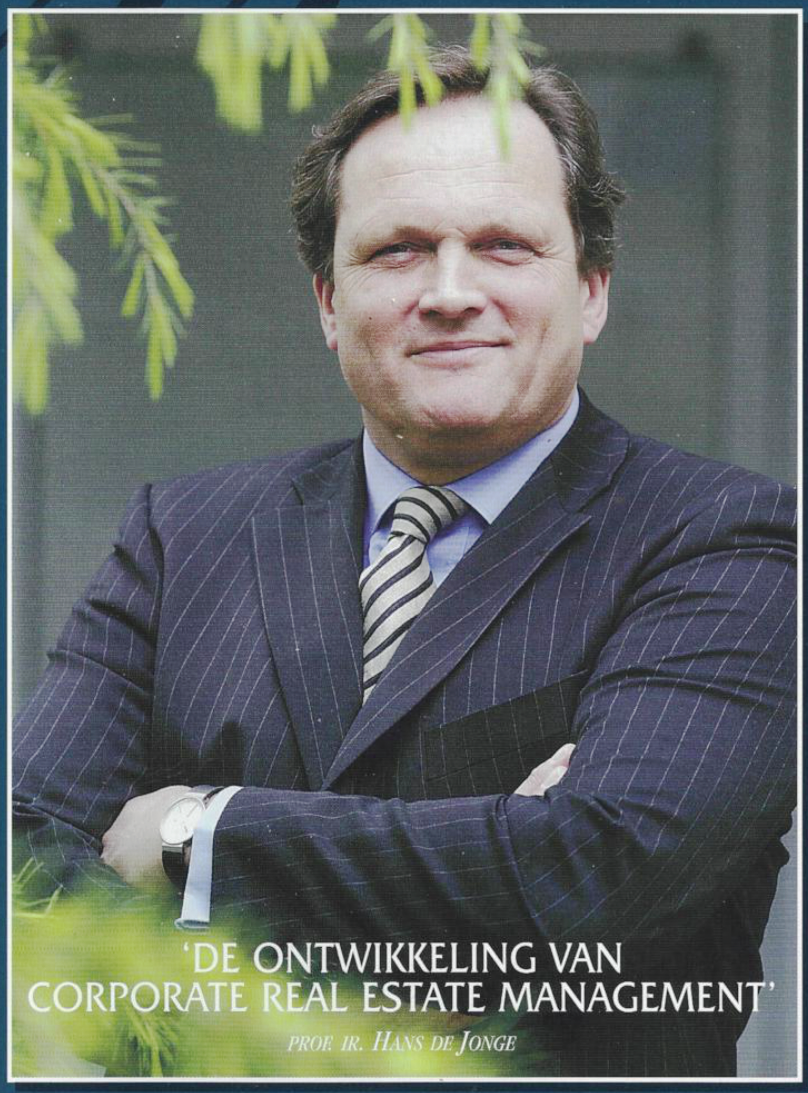
NUMMER 22 2002

CORPORATE REAL ESTATE MANAGEMENT



'DE ONTWIKKELING VAN CORPORATE REAL ESTATE MANAGEMENT'

PROF IR. HANS DE JONGE

"Je ervaart huisvesting pas als er iets mis mee is."

www.realestatemagazine.nl

In dit nummer verder o.a.:

BENCHMARKING: EEN UITDAGING VOOR CRE-MANAGERS
IR. ALEXANDRA DEN HEIJER EN IR. PITY VAN DER SCHAAF

OPTEREN VOOR TOEGEVOEGDE WAARDE
PETER J.M.M. KRUMM EN EMIEL J.P. BUIJSSEN

VASTGOEDSTRATEGIEËN VOOR DE 21E EEUW
DRS. H.J.J. KLOOSTERMAN

Real Estate Magazine and Hans de Jonge

Arie van der Ent

"In June 1998, thousands of addresses in the Netherlands received their first copy of a new magazine in their letterbox, called Real Estate Magazine. The first reactions were very positive and after only six months the magazine turned out to have earned its own position. Quite a lot has happened to arrive to that point, though"

This text is taken from the closing column in the 50th issue of Real Estate Magazine, written down by Hans de Jonge, chairman of the editorial board at the time. The events leading up to the first issue of Real Estate Magazine are described by Hans as follows:

"ARKO Publishers BV had picked up the idea to launch a magazine on real estate. Publisher Wim Kooyman got in touch with a number of different people in the real estate sector to test his ideas. Part of the formula was that scientific articles would be included in the magazine as well and universities should contribute substantially. That is how Wim ended up at my desk and I was immediately enthused. At that time the existing magazines were mostly filled with papers about the investment side of real estate and I saw a bright future for a magazine with a broader scope. Shortly before the introduction of the first issue my former colleague Kohnstamm of the University of Amsterdam preferred to publish scientific articles in VOGON, a Dutch Real Estate Research Association. That was a logical decision, because that magazine was partly initiated by the Amsterdam School of Real Estate (then: SBV, Stichting voor Beleggings- en Vastgoedkunde) founded in 1991 and modelled after the Society of Property Researchers in the United Kingdom."



During the lively and spirited meetings of the editorial advisory board, which always had been prepared on conversations with multiple experts, often from practice, Hans de Jonge used to wreck our proposals, with arguments.

VOGON

However, the real history is a little bit different. Let me set things straight. The board of VOGON wanted to professionalise their quarterly. In order to do so they had invited Caroline Gruijters – who unfortunately passed away far too soon – editor-in-chief of Vastgoed, the favourite magazine of the NVM, the Dutch Real Estate Brokers Association . I worked for this magazine as a freelance journalist. The decision to invite Caroline was obvious: as editor-in-chief she had put the NVM magazine back in the picture, after a few difficult years. However, instead of Caroline they ended up with me. With the remark 'You've studied for this," by which she referred to my background in marketing and communication, Caroline left this job to me. At the request of VOGON I prepared a proposal, together with a number of people from my network, including ARKO Publishers, with attached a complete dummy, that was embraced by VOGON. Unfortunately professor Kohnstamm, and with him VOGON, decided to publish their materials once per quarter as an extra section in Vastgoedmarkt ('Real Estate Market'). There we were: a detailed proposal in our hands and no client. 'Then we'll do it ourselves,' Arie Kornet said after the meeting at restaurant the Arsenal, Naarden. Arie Kornet was the director of ARKO Publishers and our proposal had removed his doubts. The rest is history.

With arguments

The founding fathers of Real Estate Magazine were – aside from Hans de Jonge – Leo Uittenbogaard of ASRE (Amsterdam School of Real Estate) and Jos Smeets from the Eindhoven University of Technology. For thirteen years, until my farewell as editor-in-chief in 2011, I have worked together with them with great pleasure. The sessions with Hans in particular were inspiring – inspiring and confusing at the same time. Why? Real Estate Magazine worked with issues about a particular theme. For each theme a number of experts were contacted that due to their expertise could place the subject in a new or at least an illuminating perspective. Together with Gert-Joost Peek and later Monique Arkesteijn from the Department of Real Estate and Housing as scientific editors, I discussed the themes for the next three issues (a period of six months). Together we searched for the authors that were best suited in our opinions. This method had been developed over the years for a specific reason. Hans de Jonge had a particular habit: during the lively and spirited meetings of the editorial advisory board, which had been prepared by me based on conversations with multiple experts, often from practice, he used to wreck my proposals. With arguments, of course. So wasted time, have a good cry and start again. In practice, starting over was not always possible, because practice is more unmanageable than theory. Hans' vision was often far ahead of his time or his opinion was either partly or completely out of line with the prevailing opinion. The effect was that his suggestions and ideas could not be picked up by the available authors. Due to time constraints – after all, a magazine has a deadline – we had to go back to the first, former plan. With a number of adjustments, mind you.

A new way

The idea of a scientific editor emerged from conversations with Peter Krumm and Gert-Joost Peek, both Ph.D. candidates of Hans de Jonge, the latter working on location synergy in station areas. Although as a marketing man and later as a journalist I had made myself familiar with the Dutch Brokers Association NVM and their members since 1982, this did not mean that I really understood what was going on in the real estate sector. In fact, retrospectively I have to agree with the ex-presenter Victor Deconinck. He was often the honorary chairman at seminars, congresses and other events in the real estate sector. After one of those days, standing in the elevator with his best suit on a hanger under his arm, he remarked: 'the longer I walk around in this world, the lesser I understand about it.' I, too, understood less and less about it, but with the help of Gert-Joost my real estate universe expanded substantially. A few years we worked together behind the scenes as the editorial board, until Hans de Jonge announced that being the chairman of the editorial advisory board he would like to be more involved in the magazine. Just being the face of the magazine was something that did not suit his purpose. At the same time, it was decided together with the publisher and the account manager to go along a new path, commercially speaking.



NVM drinks at the roof of the Hilton

Sponsoring

Due to the recession in the real estate market the foundation of the business model of the Real Estate Magazine became increasingly weak – "soft as butter" as we say in the Netherlands. We shifted to a model with sponsors that were positive about the magazine. A sponsor was permitted to send a representative to the editorial advisory board. That worked well for a few years – the meetings were well attended, the conversations were lively and inspired and the chairmanship was in safe hands with Hans. The participants experienced what had already happened to me some years earlier: at the end of the evening they were inspired, but also confused. Most of our meetings were held at Huize Molenaar in Utrecht. A restaurant specialised in private meetings with an excellent table. Something that Hans definitely appreciated.

MIPIM

At the end of the nineties the real estate exhibition MIPIM in Cannes was the place to be. Here everything happened and if you were lucky you could end up with large deals or return home with a one-year job. Hans de Jonge was there in the first years, representing the Brink Group. His attitude, however, was more that of an amused spectator than of a passionate deal maker. In 1999 Real Estate Magazine was represented by four people to establish contacts in Cannes. A hotel was booked in Golfe Juan, the place where Napoleon came ashore after his escape from Elba. In Cannes we ran into Hans and agreed to have dinner together. But where? As far as the cuisine goes, Cannes is one big tourist trap. We chose to go to Golfe Juan, because the common gathering place for the Dutch during the evening hours – Caffe Roma on the Boulevard de la Croisette, where the guests would be consuming bottles of Heineken at the rate of nine guilders per bottle whilst standing on the sidewalk – was assessed to be too noisy by Hans and the REM-team.

Cigar

We settled in Le Bistrot du Port, a good middle-class restaurant at the harbour of Golfe Juan. It was there that the REM-team got to know Hans as a brilliant conversationalist and lover of a good table. He asked me the question – based on my NVM background – if I thought that a broker added more value to a new-build house than an architect did. I did not think so, which provoked the next question: 'Then why does a broker get an equal percentage of the sale?' I did not know the answer. It was that question that changed my outlook on the field of real estate. Up to that point, my universe had not been bigger than that of the brokerage, in which I had been active as communications advisor and journalist since 1982. The field of real estate turned out to be larger and in particular more interesting. I am thankful to Hans and his colleagues of Real Estate & Housing that they have shown me that world in the correct perspective.

That evening I experienced another aspect of Hans de Jonge: his physique. After a gruelling, exhausting day, a quality meal and a good cigar, Hans left with a big cigar in his mouth, strolling towards his hotel in Juan les Pins.

Arie van der Ent was the editor-in-chief of the Dutch professional journal Real Estate Magazine for thirteen consecutive years. After that he was the editor-in-chief of the Slow Food Magazine. Together with Manuela Vermeeren and Bart van Ratingen – freelance text writer and ex-journalist for Real Estate Magazine – he currently forms the editorial board of the gastrosophic periodical RUPS (rupsblad.org) .



Corporate real estate alignment



CRE alignment is a continuous process: Hans has re-aligned himself and found a new hobby for after his retirement

Alignment of real estate to the organisation's needs

Monique Arkesteijn

One of the big challenges in corporate real estate management (CREM) is reducing the gap between the high speed of business and the slow speed of real estate, i.e. between the so-called dynamic real estate demand and the relatively static real estate supply. In 2000 Hans de Jonge, Peter Krumm and Geert Dewulf defined alignment as the main purpose of CREM in the book Successful Corporate Real Estate Strategies: "CREM is the management of the real estate portfolio of a corporation by aligning this portfolio to the needs of the core business, in order to obtain maximum added value for the business and to contribute optimally to the overall performance of the organisation". The alignment of corporate real estate (CRE) strategy with organizational strategy is a long-standing issue in CREM research, not only in our department but in the whole CRE community. Alignment is one of the main strategic management issues. Kaplan and Norton (2006) state that 'alignment of an organisation's cost and value creation activities is important in achieving enterprise-wide value'.

In CRE alignment research De Jonge et al (2009) and Heywood (2011) studied models for alignment processes. These alignment models try to capture the complex, multi-dimensional nature of CRE and its management. They represent an algorithm-based approach as a series



Aligning the dynamic demand and the relative static supply is a continuous focus in our research.

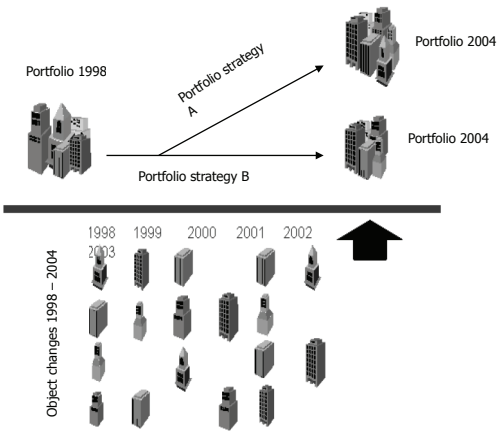
of defined steps. In this contribution the focus is on Hans' contribution to model development. While practitioners are consistently able to answer surveys on the positive state of their CRE alignment (Bon et al., 2002; DEGW, 2006; McDonagh, 2008 in Heywood 2011) but in alignment models this seems less straightforward. Authors often do not define alignment explicitly, maybe because – in our domain - they assume that this is known to the readers. When studying the models however, Heywood (2011, p.8) found that not all authors refer to the same thing

when referring to alignment, and therefore identified four main forms of alignment; alignment is seen as a process, an artefact (plan), a behavior and a state. Heywood and Arkesteijn (forthcoming) indicate that a defined 'strategy' or 'plan' for alignment which can be inferred as existing as a document making it some type of artefact. A 'process' which is defined as a set of actions or the management tasks to achieve greater alignment. A 'state' which is the degree of alignment, now or in the future. It refers to how 'much' alignment is achieved; and 'Behaviour' which is having a strategic mind-set as an emergent form suggested by O'Mara (1999) and was informed by Joroff et al.'s (1993).The first three will contribute to an enhanced state, which is the degree of alignment, now or in the future; it refers to how 'much' alignment is achieved.

This contribution will start with Hans de Jonge's pioneering work in CRE alignment, and his focus on balancing between the interests of different stakeholders. Then the legacy of Hans de Jonge and his teams and some of our research-friends. The focus lies on alignment models which can be called the Delft approach to CRE alignment, followed by some lessons learned. The contribution ends with the need for further research and concluding remarks.

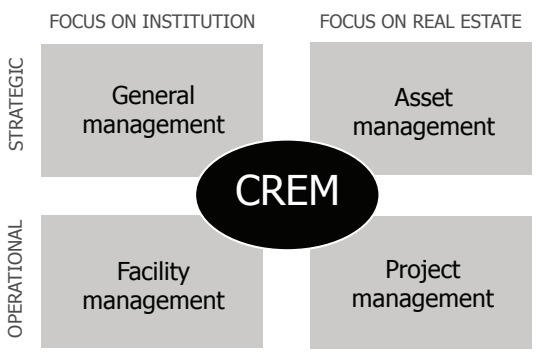
Pioneering in corporate real estate alignment, balancing stakeholder interests

Hans de Jonge introduced multi-factor alignment thinking after his arrival at the new Real Estate & Project Management Department in 1993 in the module "M4" (see for an explanation of our modules the contribution by Prins and Hobma). In his work for the Government Building Agency (GBA) it was daily business to balance the demands from politics, Treasury and the different ministries. Hans' philosophical guidance to balance the interests of different stakeholders dates back to 1988, when Hans proposed the GBA take the responsibility for a future-proof portfolio with sufficient quality and lowest costs. Furthermore, he suggested that the Ministry of Housing, Spatial Planning and the Environment is responsible for the optimum distribution of buildings across all departments, and that maintenance should gain a higher priority than new buildings (see also the contributions of Jaap Uijlenbroek et al. and Frans Evers and Pity Jongens-Van der Schaaf).



Underlying friction between department / object level and the government / portfolio level (Dewulf et al 1999).

Hans taught us that students and practitioners need to understand the interests and language spoken by the different stakeholders at the strategic and operational level of both the organizational/institutional perspective and the real estate part of the business. Therefore students are introduced not only to CREM management but also to general management, asset management, facility management and project management (see figure 2).



Balancing stakeholder interest

In practice the demand side (CREM) and supply side (REM) in the real estate industry use a different language. For instance, similar words like project management and asset management have a different meaning. Ever since 1991 Hans has brought real life cases to the students because when just speaking students will forget, showing examples students will understand, and due to learning by doing students will internalise new knowledge and develop appropriate skills. Students have worked on cases ranging from public to private portfolios from the Government Building Agency to Philips, ABN AMRO, TU Delft, European Commission, MasterCard, ANZ Bank, etcetera.

Legacy of Hans de Jonge, his team and some of our research-friends

The table presents an overview of the Delft legacy in building a body of knowledge on CRE alignment. Some work on CRE alignment is not included in this contribution because models that focus on 'adding value' by CRE are discussed in a separate contribution by Van der Voordt. Here, the focus is on alignment processes and/or the role of the CREM organisation.

Year | Author(s), Topics

1993 | Joroff & Louargand et al. Strategic management of the fifth resource: corporate real estate. Norcross, GA, Industrial Development Research Foundation.

1994 | De Jonge, The future of Corporate Real Estate Management. Seminar IDRC.

1999 | Dewulf, Den Heijer, De Puy & Van der Schaaf, Real estate management in a public organisation. Delft, DUP. In Dutch.

2000 | Dewulf, Krumm & De Jonge, Successful Corporate Real Estate Strategies, especially chapter 2 'What is Corporate real estate? Nieuwegein: ARKO Publishers.

2002 | Van der Schaaf, Public Real Estate Management Challenges for Governments. An International Comparison of Public Real Estate Strategies. PhD thesis.

2002 | De Jonge, The development of Corporate Real Estate Management. Real Estate Magazine, 22, 8-12.In Dutch.

2002 | Vijverberg, Accommodation functionality assessment in office buildings. Facilities 20(3-4): 94-103.

2004 | Den Heijer & De Jonge, Chapter 4 in Introduction to Real Estate Management: Managing of real estate processes.Delft, Publikatieburo Bouwkunde: 68-81. In Dutch.

2006 | Scheffer, Singer & Van Meerwijk, Enhancing the contribution of corporate real estate to corporate strategy. Journal of Corporate Real Estate, Vol. 8 No. 4, pp. 188-197.

2007 | Singer, Bossink & Vande Putte, Corporate real estate and competitive strategy. Journal of Corporate Real Estate, 9, 25-38.

2008 & 2009 | De Jonge, Arkesteijn, Den Heijer, Vande Putte, De Vries & Van der Zwart, Corporate real estate management: Designing an accommodation strategy (DAS Frame). 1st and 2nd edition. Delft, TU Delft, Faculty of Architecture, Department of Real Estate and Housing.

2009 | Van der Zwart, Arkesteijn, Van der Voordt, Ways to study corporate real estate management in healthcare: an analytical framework. HaCIRIC Conference 2009. Brighton, UK.

2009 | Ikiz-Koppejan, Van der Voordt, Gosselink. Accommodation Choice Model. A process model to support decision-makers in (re-)designing their accommodation. Delft: Center for People and Buildings.

2011 | De Heijer. Managing the University Campus. Information to Support Real Estate Decisions. PhD thesis. Delft: Eburon.

2011 | Heywood. Approaches to aligning corporate real estate and organisational strategy. Conference paper ERES 2011, Eindhoven.

2012 | Arkesteijn & Volker. The power of pluralism for urban strategies. Cities: the international journal of urban policy and planning, 31(April), 328-336. (TUD)

2012 | Hoendervanger, Van der Voordt, Wijnja. Accommodation management: from strategy till exploitation. Groningen: Noordhof publishers. In Dutch.

2013 | Arkesteijn & Binnekamp. Real estate portfolio decision making. Iin Gheorghe, A. V., Macera, M. and Katina, P. F., eds., Infranomics: sustainability, engineering design and governance, Dordrecht: Springer, 89-99.

2014 | Van der Zwart. Building for a Better Hospital. Value-adding Management & Design of Healthcare Real Estate. PhD-thesis. Delft: Faculty of Architecture TU Delft.

2015 | Arkesteijn, Valks, Binnekamp, Barendse & De Jonge. 'Designing a preference-based accommodation strategy: A pilot study at Delft University of Technology', Journal of Corporate Real Estate, 17(2), 98-121.

2015 | Beckers, Van der Voordt, Dewulf, Aligning corporate real estate with the corporate strategies of higher education institutions. Facilities, 33 775-793.

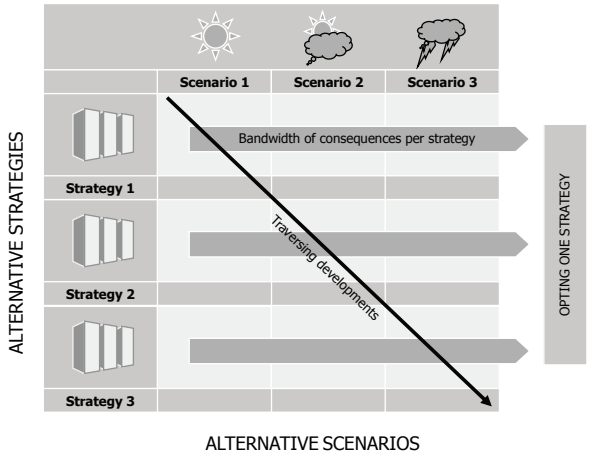
2016/2017 | Heywood & Arkesteijn. Alignment and theory in Corporate Real Estate alignment models, International Journal of Strategic Property Management (in press)

Some lessons learned from the Delft approach to CRE alignment

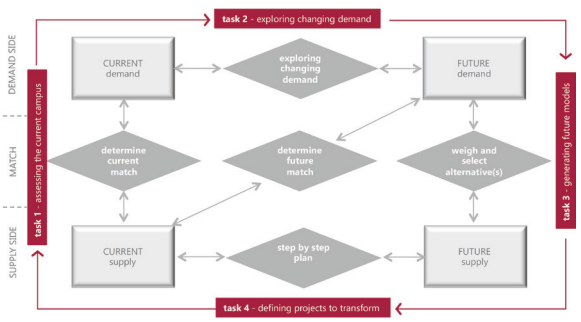
Van der Schaaf, Geert Dewulf and Hans de Jonge adopted scenario planning from management science and applied it to the management of governmental real estate portfolios. Hans and his team also applied scenario planning in the study on the future of the office market (see the contribution by Dewulf). Already in the mid-nineties Hans and his team forecasted a decreasing demand for real estate due to new ways working, resulting in a surplus of office supply that was built at the time and, as a consequence, a growing level of vacancy. Unfortunately this did not lead to a restraint in building production.

In 2008 De Jonge et al. introduced the DAS frame: Designing an Accommodation Strategy, as a support tool to align the CRE portfolio (supply) with the business (demand). Key elements in the framework are four main steering events: (1) 'What we need' versus 'what we have': determine the mismatch between current demand and current supply; (2) 'What we (might) need in the future' versus 'what we have now': determine the mismatch between future demand and current supply; (3) 'Alternatives of what we could have': design, evaluate and select solutions for the mismatch and (4) 'Step-by-step plan to realise what we want to have in the future': plan the transformation of current supply into selected future supply.

The DAS frame is an abstract framework which guides the user through the essential steps of an alignment process, in order to enhance the match between demand and supply, now and in the future. The DAS frame is supported by a mixture of existing tools and approaches from different strategy perspectives. This strategic pluralism approach has been elaborated by linking the DAS Frame to six CRE alignment models: scenario planning from Dewulf et al. (1999), generic strategies and context analysis of O'Mara (2000), Vijverberg (2002) and Fritzsche et al. (2004), and aligning strategies from Roulac (2001) and Osgood (2004), see figure 5.

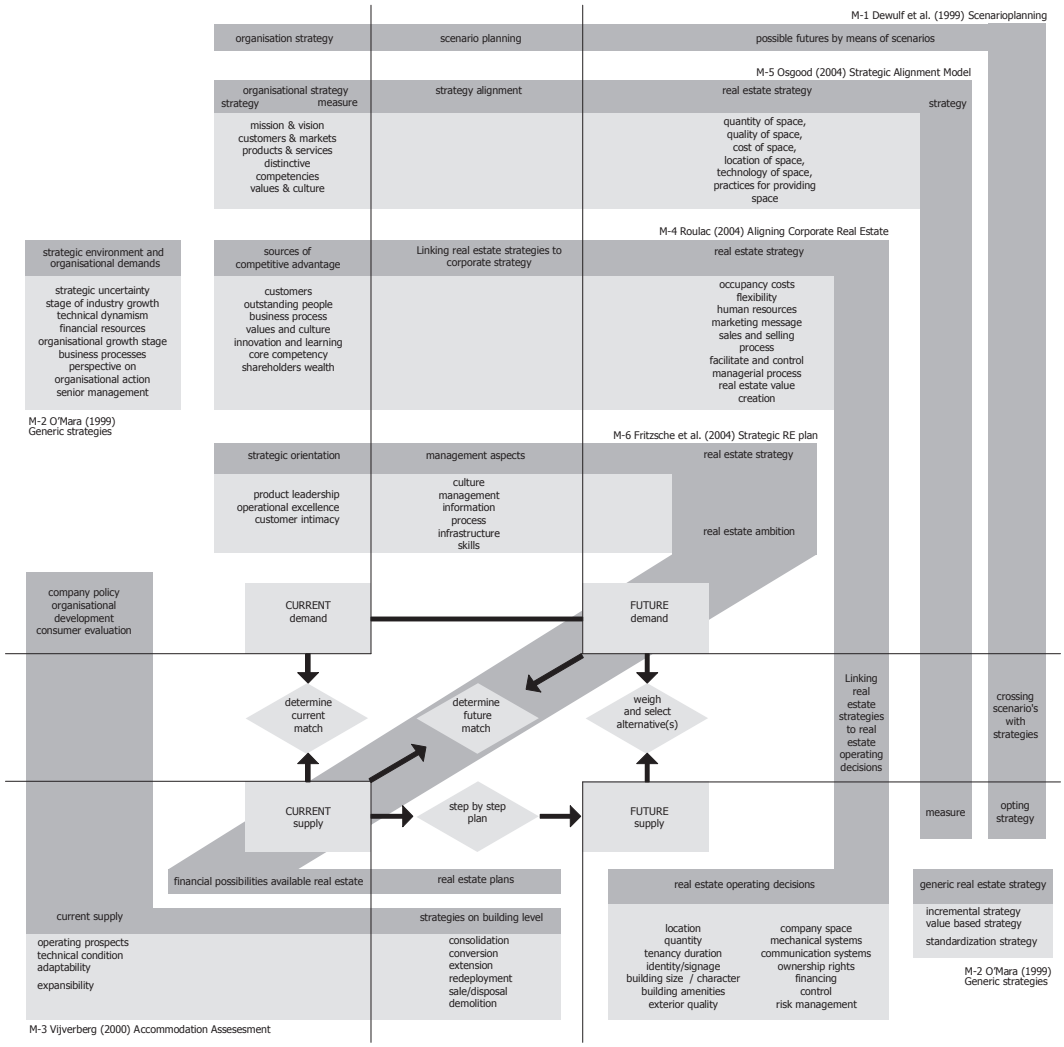


Basic concepts of scenario planning (Dewulf et al 1999, adapted by De Jonge et al., 2008). Organisations can use scenario planning to design various potential futures. Key issue in these scenarios is the low level of predictability of events. The scenarios can be used to test the risk of a specific strategy or to design strategies that anticipate these different futures

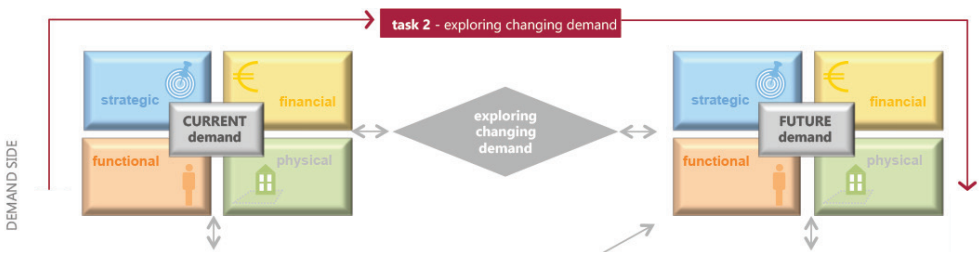


DAS frame (de Jonge et al., 2009)

In her dissertation on university campus management, Den Heijer (2011) took a road other than strategy pluralism. She enhanced the DAS Frame by connecting this framework to the ways CRE can add value to the organization, with a focus on university campus managers.



Elaboration of the DAS frame by connecting the different steps to decision-support tools (Van der Zwart, Arkesteijn and Van der Voordt (2009)

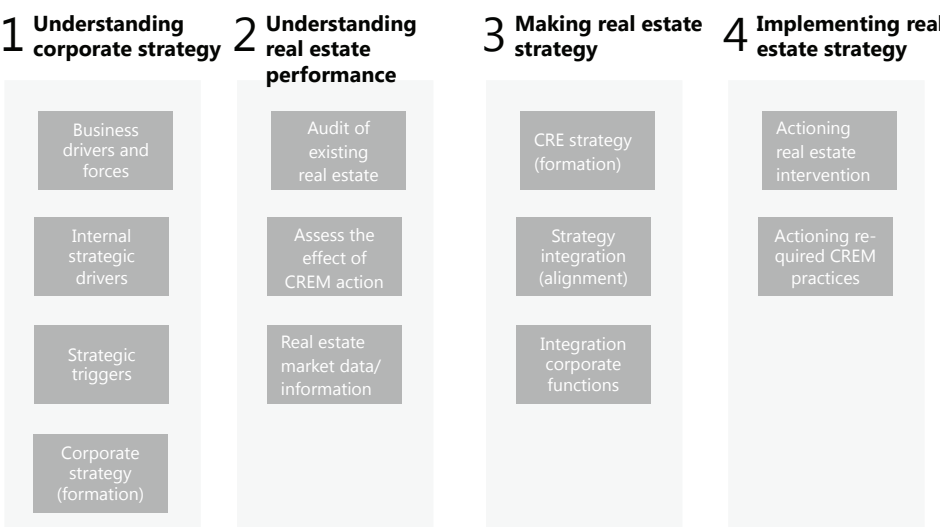


Two combined approaches by den Heijer (2011), connecting the DAS Frame to four different stakeholder perspectives and their ways to add value. This figure displays a zoom of the DAS frame (i.e. the demand side)

Later on Arkesteijn and Heywood compared fourteen CRE alignment models that have been developed in the period from 1987 until 2013 (De Jonge et al 2009; Heywood 2011; Arkesteijn and Heywood, 2013). This analysis traced four main building blocks and twelve components to model CRE alignment. The four building blocks are: 1) understanding corporate strategy; 2) understanding real estate performance; 3) making real estate strategy; and 4) Implementing real estate strategy. Each block includes between two and four of the twelve components. Though all studied models included the four main topics, not every model includes all twelve components; however, all current models include at least seven components.

CRE alignment in practice

Currently Monique is researching CRE alignment in practice. Graduate student Lisa Kuipers is studying 5 multinationals amongst which is ANZ. Our aim is to describe how multinationals organise CRE alignment and to compare this with the insights gained from theory. Lisa studied relevant documents and has been able to interview Kate Langan, ANZ's CRE Manager, twice. ANZ is a multinational corporation active in the Financial Services industry. The firm offers financial or banking products and services to retail, corporate, commercial and institutional customers in 34 countries, mainly within Australia, New Zealand & the Asia Pacific region. Their stock is publicly traded on the ASX. ANZ 's vision is to become the best connected and most respected bank. To achieve this, their corporate business strategy consists of three main elements. First of all, ANZ pursues a centralized and organization-wide approach and the various divisions share common operations, technologies, and services on a global scale. The centralization helps maintain a coherent business for their customers and employees, while expanding globally. Secondly, ANZ aims to further strengthen their position in the domestic markets, through increasing productivity, gains in market shares and penetration of new offerings. Further, ANZ aims to make use of the profitability of the growing Asian markets to expand their business on an international scale. This also helps them diversify across products and geographies, making their business more resilient to changes in markets or customer needs. Eventually, these three main strategic objectives should lead to increased revenue and earnings, which is needed to increase shareholder returns.



Modelling CRE alignment: Four building blocks and twelve components to model CRE alignment (Heywood & Arkesteijn, 2016/2017 in press)

ANZ's Real Estate Group, as one of the business support functions, aspires to create environments that best enable the business. The CRE mission consists of three elements: having a commercial focus by enhancing productivity across the organization, being consistent on a global scale by further centralizing the operating model and delighting the customer by improving their real estate quality. The Real Estate Group recently refreshed their strategy in response to the revised corporate business strategy, which was driven by the impacts of the digital age and increased pace of business on the bank. This will have it's effects on the CRE portfolio. Furthermore, the Real Estate Group noticed that the way they operate had changed, during the previous five years they had gotten closer collaboration with the business, which caused increased levels of trust and transparency. This, combined with the external drivers of the digital age and high business pace, drove them to strive from more flexibility to fluidity and agility in the RE portfolio.

Need for further research

Although much progress has been made in the last decades, more research is needed:

CRE challenges

In The Bigger Picture, The Future of Corporate Real Estate, CoreNet Global identifies issues challenge the CRE manager: technology and the Internet of Things; risk mitigation; cyber security; environment, energy and sustainability; corporate social responsibility; and the interests and needs of a changing work force, particularly with respect to well-being. Michael Joroff and Franklin Becker will address the challenges in-depth and even take them a step further.

CRE alignment in practice

We have started research into the way organisation nowadays align their real estate to the organisation. Our aim is to compare CRE alignment in practice with the insights gained from theory.

CRE alignment book

The ambition to publish a new book on CRE alignment that summarises the insights gained in the last 10 years and which connects academic lessons learned with guidance for practice.

Decision tools to improve CRE alignment.

In the literature algorithmic approaches to alignment prevail. Monique Arkesteijn and Ruud Binnekamp are testing a CRE decision tool to improve CRE alignment (see also PhD research Monique Arkesteijn).

Concluding remarks

Dear Hans, you are aligned by setting the stage for education and research into CRE alignment at TU Delft since 1991. Many students have learned from and with you about scenarios, strategies and the difference between the two. The DAS Frame and other models and approaches to alignment were brought by students into practice. At the same time research continues to observe practice and experiment with new approaches.

Monique Arkesteijn is assistant professor of Real Estate Management (REM) and head of the REM section at the Department of Management in the Built Environment, Faculty of Architecture TU Delft.



Michael Joroff, on the far right, during a recent visit to Kazakhstan. He loves to be anywhere where he has a chance to help in work the future.

Exploiting change and uncertainty to drive corporate value

Michael Joroff and Franklin Becker

The challenge

A quarter of a century ago, fundamental shifts took place in the paradigm whereby corporation leaders understood the concept of "workplace" and perceived the "value" of the real estate that they owned or leased. Much of this shift in thinking among corporate real estate executives was driven by the *CRE 2000* program sponsored by IDRC (now CoreNet Global) and professional education programs sponsored by NACORE (now CoreNet Global). Forward-looking corporate real estate professionals from industry and academia drove these changes in response to disruptive forces in the business environment. Although members of that cadre are now retired or winding down their careers, today's senior leaders now build upon and are implementing the practices that then began to emerge. But even as this continues, corporate real estate managers and work place designers discern powerful forces at play that are again disrupting and even transforming the business environment.

This means today's best real estate management and workplace practices will, once again, morph and in some cases disappear as new approaches emerge and are implemented. The specific form the real estate landscape will take will be determined as inquiring professionals grasp the implications of macro contextual changes not only in the technological and business environment, but as these are shaped by global demographic, economic, and political forces. It is to those women and men emerging as the next generation of organizational leaders to whom the challenge of the future falls.



Franklin Becker in Reno, one of his favourite places.

The challenge is to apply disciplinary skill sets from almost any discipline, in new ways, with new people, in a collaborative process of invention, currently foreign to CRE practice, to become radical innovations

The paradigm shift that is still being played out

The mind set about today's workplace began to be forged in the late 1980s, as a handful of academics and practitioners, people like Bill Agnello, Michael Bell, Eric Richert, Chris Hill, Hans de Jonge, Joe Ouye, Michael Brill, Frank Duffy and the authors proactively examined where and how people worked. Their inquiry illuminated the critical role between the design and management of workplaces and how work gets done. This in turn, led to an appreciation of how to design workplace strategies and related management policies to reflect specific work practices defined by the nature of the task, who is involved, the tools used, and the culture of individual work groups as well as of the enterprise.

The shift in thinking about the role that real estate plays for corporations came about as a reaction to a threat posed to the then prevalent way in which real estate was managed. This was triggered, particularly in the US and in Western Europe, by a crash of the real estate market in the early nineties, at a time when the outlines of transformative and disruptive business and societal change were coming into focus. Corporate executives, particularly financial officers, were jolted to learn that their enterprises had more real estate than their business required, that many of these assets were designed for outdated purposes and processes, and were in the wrong location for the needs of the business. They demanded new ways of looking at and managing these assets as they came to understand that the cost of maintaining and managing redundant and outdated property put significant drag on their balance sheets. These calls for change were particularly strident in the many corporations that had purchased real estate for its promised investment return during the earlier days of the real estate boom, only to see the investment value diminish at a disturbing rate, significantly hurting their net worth and shareholder value.

Real estate management and workplace practices will, once again, morph and in some cases disappear as new approaches emerge and are implemented.

Six primary shifts in how "corporate real estate" was viewed and how it could best be managed came in reaction to this financial pressure:

1) Financial to Business Asset. A shift occurred in the mindset that viewed corporate real estate as a passive financial asset with a high cost to one that appreciates the real estate portfolio as an asset integral to the conduct of the business, with high use value. In this perspective, corporate real estate became viewed as fifth critical corporate resource to be designed and managed to proactively promote new ways of working that, along with more flexible, informal and open corporate management and culture, and transformative information technologies, enhanced business performance.

Traditionally, corporate real estate was viewed as a necessary overhead cost of doing business, one to be minimized to the greatest degree possible. The shift that occurred was to recognize a use value, which meant that real estate was to be acquired only if an argument could be made that the investment would promote the effectiveness and productivity of the workforce. Although controlling real estate costs remains a corporate imperative, now leadership seeks an appropriate balance of cost with use value.

This shift is expressed in the creation of corporate real estate portfolios designed to include assets that are owned and leased for long- and-short term to meet core and tangential needs over a national and global geography. The management of the portfolio takes into account the availability and cost of labor for the diverse range of business needs, the desire to learn about and/or enter new markets, the need for resiliency in the face of the potential of natural and man-made disaster, investment and tax management and international trade agreements.

2) Workplace as an Ecological System. Organizations today generally understand the "workplace" as an integrated ecological system comprised of physical design and space, information technologies, workforce demographics, work processes, and organizational culture. How this dense web of interdependent factors are designed and managed support different kinds of work not only, as formerly understood, as simply a place that just houses people as they do assigned tasks, but also as a means of attracting and retaining the best and brightest employees and engaging and enabling their talent and energy.

As recently as at the turn of the twenty-first century, many companies still viewed the "workplace" as a singular, discrete place for employees to do his or her assigned tasks. This perception spawned standards that applied across the corporation, with little variation. In this circumstance, when people said they "were going to work", they most often meant they were going to a singular, fixed place within a floor of a specific building where they would spend all, or at least a better part of, their day. In this conception, places were arranged into cellular offices along a double-loaded corridor or as cubicles created by different height moveable panels within a large open area. It was assumed that people spent most of their time in that place, leaving it at scheduled times to attend group meetings in areas designated for that purpose.

The shift that occurred recognized the 'workplace' as a system of loosely linked spaces inside and outside the "office" (the building) designed to support specific activities such as quiet work, informal communication, and client and group meetings. The employee chooses where and when to work within the building based on their specific activity and work style. This workplace strategy, called "activity-based planning," varies significantly in its specific implementation, but it is widely accepted today, at least in principle. The workplace, however, now extends beyond the "building." It includes spaces in the homes of workers; places owned by others, such as cafes and hotel lobbies; internet connect parks; co-working spaces; the offices of collaborating firms or clients; airplanes and airline lounges while traveling and many other places where particular work processes are done as needed, not prescribed or pre-determined by management. Most notably, the "workplace" now relies on cyber as well as physical space because it is the only way work can be done in all of the above spaces, anywhere at any time.

3) Needs vs. Preferences. This shift is best understood in terms of a phrase coined in the 1990s, "*the business of corporate real estate is the business of the business*", reflecting the sentiment that real estate should be acquired only if and when required by actual or projected business growth and/or to support work processes. Where once the modus operandi of the corporate real estate function was simply to take orders from business units for property, what they *preferred*, and then deliver it on time and within budget, now the role is to proactively work with business units to anticipate their *needs* and to sharpen their understanding of how to best meet these needs through real estate and workplace strategies. This constructive role is reinforced by corporate centralization of portfolio design while, at the same time, deploying corporate support staff as account managers who understand business unit work processes.

Organisations demanded new ways of looking at and managing their assets as they came to understand that the cost of maintaining and managing redundant and outdated property put significant drag on their balance sheets.

4) Power and Opinion vs. Data. Decision-making about real estate and workplace investments is now more often underpinned by analytics and rigorous review of business context, along with data about real estate financial, individual, and team and department performance data; and how space is being used. Formerly, decisions were largely based on the demands and preferences of powerful business leaders; along with untested opinions and assumptions about what worked (e.g., helped build the brand, attract and retain employees, promote teamwork and innovation, enhance flexibility and mobility), and what did not.

As order takers, the corporate real estate staff accepted, usually without question, the stated desires of business units and then acquired property guided by their knowledge of the real estate market. As the functions of portfolio management and workplace design have became more strategic, analytic processes and decision support tools are more often deployed to evaluate investment options and forecast impacts. The art of the real estate deal by market analysis and brute force negotiation is now supported, if not entirely supplanted, by algorithmic methods; and a wide range of employee data such as space and energy cost per square foot and per employee, and findings from employee job satisfaction surveys and ratings of health, well-being and engagement.

5) Stable/Static to Agile Portfolio. At the time when the corporate real estate paradigm began to shift, enterprises were largely perceived as relatively stable, with a known culture and known tasks and processes. Resources to support work were acquired in the context of a stable state. These led corporations to assume that facilities and the uses they house would have a relatively long-life. But this assumption began to disintegrate in the decades prior to the turn of the century as the full force of change in the global business environment took hold, powered by the unprecedented surge of new information technologies, mergers and acquisitions, and the rise of new international powerhouses like China and rapidly growing markets in developing countries.

Today, the context in which enterprises work is recognized as unstable, in flux and uncertain: it is accepted that everything is subject to change. Agility has become an overarching objective for firms that wish to succeed, no less survive. The corporate real estate portfolio and all of its uses, once considered bedrock of stability is now required to be able to rapidly change. That takes many forms. This requires facilities and arrangement for corporate tenancy that are flexible, in which space can be rapidly acquired and just as rapidly abandoned almost anywhere in the world depending on how new and expanding business ventures, and the economy of emerging regions, fare. The pursuit of agility is underpinned by a management mindset that recognizes that everything may need to be rearranged and/or changed as political and economic circumstances warrant.

The corporate real estate portfolio and all of its uses, once considered bedrock of stability is now required to be able to rapidly change.

6) Tactical to Strategic. Formerly, the corporate real estate function primarily required transactional skills to acquire, configure and deliver space. In-house, stand-alone staff ran the function with episodic support of contracted designers, brokers and property managers to do discrete tasks. Today, corporations host relatively small groups of in-house staff for strategic planning and relationship management. These CRE professionals do their work in collaboration with corporate human resource, IT, and work process experts. The in-house group works in close alliance with outside firms who support in-house work and take responsibility for resource management and project execution.

A change in the professional orientation of those engaged with the "fifth corporate asset" has come with the paradigm shift described above. The wide range of required expertise is deployed in the context of business alignment. No single discipline or profession encapsulates all the expertise that is needed. Professional silos have become dysfunctional. For the organization to succeed, collaboration has become critical. In some cases that has led to significantly broadening the boundaries of corporate real estate to encompass all corporate services, from real estate and facilities management to transportation, security, catering, and information technology. Increasingly, cross-functional collaboration also occurs by forming business relationships and partnerships as part of a business network of companies that mutually benefit by increasingly open and cooperative arrangement with companies that previously were viewed as competitors or simply irrelevant to the business. In this more networked field of experts, corporate real estate professionals are emerging who encompass many skills; but all are expected to fully appreciate the norms of the corporate real estate practice and build upon best practices. While professional associations and university courses provide the traditional source for learning new skills, just as the CRE field itself is under pressure to change, so will be those places where such skills can be acquired.

Going Forward: Three Megatrends

Whether one is struck by the fact that elements of the paradigm shift are still being put into practice 'after all these years,' or considers the shift as ancient history no longer to be thought about, is largely a matter of perception, influenced no doubt by one's professional age and the enterprises with which one is familiar. But no matter the observation, it is important to understand that the shifts that begun some 25-years ago, whether firmly ingrained

within an enterprise or still being melded into practice, now need to be updated and reconfigured to address 'new' challenges: not only those that have already come into the sites of corporate leaders, but also those are just beginning to emerge in a still uncertain future. CoreNet Global's recent report, *The Bigger Picture, The Future of Corporate Real Estate*, listed topics that are examples of known issues that demand attention now: technology and the Internet of Things; risk mitigation; cyber security; environment, energy and sustainability; corporate social responsibility; and the interests and needs of a changing work force, particularly with respect to well-being.

To address these challenges now is necessary but not sufficient. Addressing these topics is, in some ways, like thinking of the "future sideways". These are challenges that have been clear for a decade or more, so. Dealing with them now is playing catch-up with the known future. Enterprises need to be aware of fundamental changes in the context of global business that are still largely undefined or not even recognized. The need is to see and begin considering responses to these megatrends as they begin to emerge on the horizon, in order to explore, if not to take proactive action, actions that increase the likelihood that the endemic uncertainty in which all companies today operate can be exploited, and value extracted, to strengthen the company's edge in a fiercely competitive global marketplace.

We see these contextual changes as mega challenges, defined more by fundamental shifts in how business is done, than particular action-oriented challenges noted by the CoreNet report and much of the business literature.

At this time, we see three mega challenges that will have existential impact on those who manage the fifth resource; other observers surely can identify additional ones. These are:

1) Convergence

The complexity of opportunities and challenges today facing business and institutions requires that enterprises and disciplinary professionals cross-traditional boundaries and work together in new ways. The process of convergence is a powerful way for this joining. It blurs boundaries between industries and enterprises as all interested parties work together at the outset of engagement to frame opportunities, define value propositions, align processes, competencies and technologies, and approach markets in holistic and integrated ways.

The still emerging convergent approach is today taking hold in all industries. It is probably best known in the field of biotechnology, in which teams that develop novel medical products and services through collaboration among widely different disciplines drive opportunities for scientific advance and business exploitation. No one company can possess all of the necessary competencies, so teams draw from universities, hospitals and small and large enterprises interested in everything from new pharmaceutical products to nanotechnology.

The process of convergence also occurs within companies when different internal functions with increasingly permeable boundaries join tougher in formal and informal ways to develop new products and service delivery and supply chain models on their own or with other organizations through alliances, partnerships and mergers.

2) The Emerging Geography of Value Creation

Shifts in the geographic locations where enterprise value is created are being shaped by the globalization of supply chains; technology that fosters the fast, easy, and inexpensive exchange of information and communication; networks of globally distributed companies; tax policies and regulations; trade agreements among states; the growing dominance of some cities; and the rise of economies and markets previously underappreciated as 'developing countries" -including those in Africa and Latin America and the twenty-first century growth of countries along the Silk Road through China and Central Asia. All of these factors and, most importantly, the interaction among them, influence the future geography of work and value creation.

Some of these forces, such as globalization and the blending of place and virtual environments are well known and their impact has been discussed for some time, even if not yet fully resolved. The 2016

political debates about regional trade agreements in the Pacific; challenges to the solidarity of the European Union; and attempts to reset power arrangements among East Asian nations all raise questions about potential business locations that will not be resolved for some time.

The shift in geography is played out at the micro as well as the macro scale. The general movement of corporate headquarters and R&D functions back to cities throughout much of the world has been playing out over the past decade, with a more recent focus on sub-districts that cluster activities across an industry's value chain and/or create an ecosystem of established and start-up firms, along with universities that promotes entrepreneurship and innovation. This phenomenon is today largely found in the US, Western Europe and the economically strong countries of Asia, but it is coming into focus throughout the world. On even a smaller geographic scale is a shift of work from enterprise-controlled places to a network of places over which they have no direct influence.

3) Social justice

This term relates to promotion of a 'just' society by championing equality and diversity and the equitable allocation of community resources. It is the term most often discussed in terms of government policy, philanthropic goals and political campaigns. But it needs also to be of concern to corporations in a way that is broader than the concept of corporate social responsibility, which references a wide variety of business tactics such as giving a portion of a company's proceeds to charity, implementing "greener" business operations, and promoting workforce diversity, a safe and healthy workplace, and a fair wage. Issues about "social justice came to the forefront of public recognition in the period of 2014-2016 with the social turbulence and dissatisfaction revealed in the demise of the visions of the "Arab Spring", the BREXIT movement, the American political campaign of 2016, and social unrest in a number of Western European countries. Public discussion and debate about the vast disparity in the distribution of wealth in a range of societies documented by economist Thomas Pickering has also brought issues of social justice to the general public. All of this raises awareness of the broad negative societal impact choices made by society and corporations can have.

One mega issue of enormous consequence remains largely in the shadows of corporate and even societal concern. This has to do with whether or not to deploy technology and new businesses process that create a class of new products (or even markets) and result in greater efficiencies and higher profit but destroy jobs and further an inequitable distribution of wealth. A few questions suffice to illustrate the point. Is it in society's interest to eliminate tens of thousands of delivery and logistics jobs by deploying drones for quick delivery of nonessential items? Is it in society's interest to deploy robots to care for the bedridden elderly (except in the case of heavy lifting), when that would displace jobs for unskilled workers who have few other job opportunities? Similarly, is it in society's interest to displace wait staff with more efficient, less expense robots in restaurants? Is it in society's interest to transfer community education or incarceration programs to "more efficient" corporations when jobs might be lost or community connections severed?

The choices about these issues are not those of corporations alone. They also rest with the consuming public. Here, too, a few questions illustrate the point. Are consumers prepared to spend more for their personal electronic communication devises or for the entertainment cockpits in their cars and possess them for longer periods of time with fewer (and more expensive) technological upgrades if it means lower levels of outsourcing of jobs to other countries? Are consumers who are able to afford premium foods in markets and restaurants willing to pay slightly more to allow corporations to eliminate food waste and deploy it to lower-income consumers?

A mega issue is whether or not to deploy technology and new businesses process that create a class of new products (or even markets) and result in greater efficiencies and higher profit but destroy jobs and further an inequitable distribution of wealth.

Are cities prepared to guard their stock of relatively low cost housing (by financial and regulatory means) even if some number of high-paid "creative" people relocate to other places where the desire to protect against excessive gentrification is less strident? Are local and state governments willing to put a greater proportion of their economic development funds, social energy and political capital into the promotion of SMEs that have high social and job value for the average citizen but lower potential "pay-off" (often stated in nebulous terms) than efforts to capture footloose or relocating corporate giants or make big bet investments in hope of capturing and nurturing one or several elusive start-up unicorns? Who do "innovation districts" or industry clusters that seek to promote innovation, entrepreneurship and more product and service inspiration actually benefit? Or, stated another way, how can such initiatives benefit a host community, and not just the people directly employed in them?

The way in which even this small sampling of issues will be addressed will have significant implications for civic society as well as for business enterprise. How this will play out is, today, still unclear.

Those who exploit change and uncertainty will drive the future

Although some emerging patterns of these mega trends are clear, the direction that these trends will lead are still open to interpretation and speculation; and will likely be so for the foreseeable future. Even deep probes into these issues will not result in answers that are certain; rather, at best, they produce potential scenarios and raise open questions to be probed and monitored.

Those who manage the fifth resource will be well served to join this search so they can keep abreast with business leaders and prepared to respond as needed; or better yet, so they can take proactive action, if even of an experimental nature. The value of doing so was well expressed by the director of workplace services for one of the globe's most dynamic and successful corporations. He has a track record for globally delivering imaginative workplaces on time and within budget, yet he frets about the future success of his group. When queried about why he is so concerned, given his group's success, he replied, "*I am afraid that I will not anticipate and proactively respond to an as yet unknown future; and that is not acceptable in this enterprise*."

The lines of between what is considered proprietary and what can be shared blur.

Becoming aware of broad megatrends is the first order of business. Following closely must come the proposing and testing of new policies and practices. Here, we suggest just a few things managers of the fifth resource can take to increase awareness.

- *Break Through Personal and Corporate Blinders and Silos*

Professionals in any field tend to look at colleagues and situations similar to their own to find new ideas and inspiration. This has value, but has its own limits as each field has its own mindset and views of what is 'good' practice. Reaching to other fields is informative and can stimulate innovation. The rise of the networked organization is today often discussed by those who seek the future, but outlines of that future can already be discerned in some organizations: and to make them effective requires new mindsets and new skills for all the companies involved. The lines of between what is considered proprietary and what can be shared blur. Toyota pioneered such approaches when, rather than just demanding certain performance parameters from its suppliers, it welcomed them into their labs and manufacturing facilities to jointly develop and invent new processes and products by breaking down intellectual property barriers, and welcoming people into the organization at its space who by design, bring different skills, expertise, and ways of thinking and working.

Teamwork done in a blend of virtual and physical space to provide cancer care for patients is also informative about new ways of working and how that can be supported. It is common for a 'cancer' team to consist of specialists in chemotherapy, radiology, particular pathologies, and patient support advocates. Typically these teams meet

on a regular basis in ad hoc physical meeting area within a hospital in space conveniently accessed by all. They bring their work with them on tablets, on which they can also access an array of specialists who may join virtually. These teams have significant patient care responsibilities and cannot lose the rhythm required for their convergent work. They need space, IT connections, and direct physical and/or virtual contact among themselves and with the patient; and they need that when and how required. They have to work together in a seamless manner; work support systems cannot fail, nor can the culture of collaboration waiver.

- *Seek "Vireos"*

The theory of the black swan is a metaphor that describes a hard-to-predict event that comes as a jarring surprise and has a major impact on the course of economic or social events. The phenomena have been extensively discussed related to science, technology and finance. Juxtaposed to this, we propose learning about the potential future by looking for what we refer to as *vireos*. These are objects, actions, and ideas in our *current environment* that we do not see, but if we did, and thought about them, we might have a much better grasp of a possible future, even if that future might only be fuzzy. Because they are hidden or not seen, we miss them and act on them only much later when circumstances force us to "see them", and then to have rapidly adjust, losing much of the value that could have been achieved by earlier action; and sometimes this delayed action causes negative disruption. Our coining of the concept of vireo gets its inspiration from the white eye vireo -- a North American bird with a melodic song but very hard to find and see unless one actively looks for it hidden in its surroundings.

Thinking about the workplace as 'anyplace, anytime' is a case in point. A review of today's workplace literature makes this seem like an idea that keeps jumping out of the brow of Zeus. But this style of work would have been visible to anyone who 25 years ago looked at the work patterns of college students, as they started to use the Internet to work anywhere at any time, when the Internet came into the mainstream. Similarly, observing the early work of scientists developing biotechnology and nanotechnology several decades ago might have been able to foretell the new kinds of facilities that require agile leasing arrangements and spaces for convergence that now appear in innovation districts around the world. Observing university and corporate R&D work about the development of 'new media' 25 years ago would have pointed the direction that facility design would take when the physical and virtual worlds began to merge. One could have foretold some elements of big data analysis rooms by observing military war rooms during the closing decades of the twentieth century.

Today, vireo can be seen in those exhibition spaces and retail spaces that use virtual reality to create interactive spaces that subsume people into worlds that are open to creation. A vireo found by monitoring how children under ten play games in VR might reveal insights about how they will work - and the supports that they will need - when they join the labor force. Professionals developing a new media industry in Abu Dhabi did just this: The directors of the program launched an Arab-language website on which children could play games for free. The site was monitored to observe playing habits and interests. The "best" players were invited to a summer media exploratory camp, where their talents could be groomed for their potential as future employees.

- *Avoid the Commoditization and Puffery of 'best of practice' and Assumptions About the Future*

Exploring the unknown future is difficult and often thought of as of secondary concern, given the pressures of doing what has to be done now. This leads people to focus on what is crowned by the professional press and conferences as 'best practices' and then shaping their own strategy and practice around them. This is understandable and can help enterprises improve; but over-reliance on this can mask the next wave of innovation and divert thinking about insights into what "might be" or "should be". This situation is often found in the workplace community where today's strategies mimic approaches that were innovative years ago; but neither refreshed by what has been learned over time or rigorous understanding of changes in context. What was once innovation becomes commoditized.

Conclusion

A case in point is how today many companies, led by iconic technology companies like Apple, Amazon, Twitter, and Facebook, as well as many smaller high tech companies, have transformed hoteling and the provision of a wide range of informal meeting and conversation spaces from a radical innovation to a familiar workplace strategy. Focusing on such efforts, as the media does, while new and innovative to many companies outside the tech industry, can mask the next wave of innovation. This is unsatisfactory given how innovative approaches to procuring and managing (using) space must become central to the enterprise. Companies must move from what was innovative, to what will become innovative. "Agile", for example, once meant furniture that was easy to reconfigure. "Agile" is now becoming a networked organization. Agility for networked organizations is defined not by internal workplace strategies like activity-based planning or hoteling, but externally focused formal and informal partnerships and agreements with companies in other industries who come together because their collaboration and sharing of expertise is mutually beneficial.

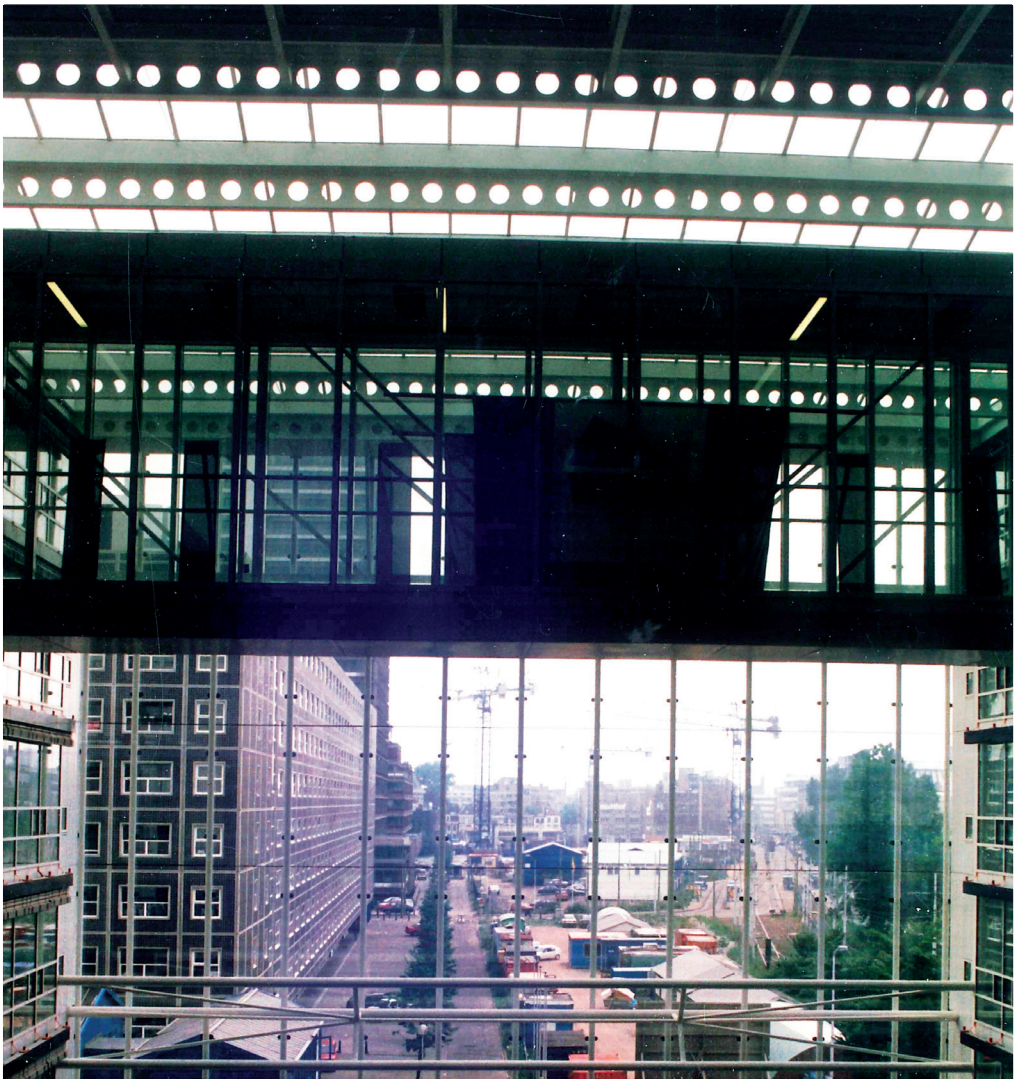
To make such networks effective, requires new mindsets and new skills, for all the companies involved. The lines between what is considered proprietary and what can be shared blur. Toyota pioneered such approaches when, rather than just demanding certain performance parameters from the suppliers, they welcomed their suppliers into their labs and manufacturing facilities to *jointly* develop and invent new processes and products. This kind of collaboration cannot succeed without breaking down intellectual property barriers, and welcoming people into the organization who, by design, bring different skills, expertise, and ways of thinking and working.

Forming a complex web of networked relationships with other companies whose staff have such skills necessarily shifts the corporate real estate bias to date for people with expertise in finance and space design to one balanced by people who are inventive from other disciplines ranging from anthropology and sociology to information technology, organizational development and software engineering. The challenge is to apply disciplinary skill sets from almost any discipline, from engineering and design to the social sciences, in new ways, with new people, for different purposes in a *collaborative process of invention*. Such forms of collaboration currently foreign to corporate real estate practice are likely to become, first, radical innovations and, then, common practice.

Hans is one of the forward thinking leaders who moved workplace design and corporate real estate management to its current position of relevance and effectiveness. The many students he inspired will now lead those who invent the future. Hans fills whatever space he is in with infectious energy and good spirit: he is *a force* as well as a really nice person. His generous invitation to me to be a member of the DUT community for several months provided a pause in my life that helped me make a delightful transition in my professional life. Hans, we wish you pleasure, satisfaction and joy as you continue with whatever intrigues you.

Michael Joroff has been associated with the Massachusetts Institute of Technology for many years as Director of the Laboratory of Architecture and Planning, Senior Lecturer and now Research Affiliate. He consults globally about the development of industry clusters and the strategic management of corporate real estate. He created and directed IDRC's CRE 2000 Program and co-authored, The Agile Workplace; Excellence by Design: Transforming Work and the Workplace. He was a founding editor of the Journal of Corporate Real Estate.

Franklin Becker is emeritus professor of Organisational Ecology at Cornell University, Ithaca, New York (1972 – 2009), former chair of the Department of Design and Environmental Analysis (DEA) at the College of Human Ecology, member of various editorial boards, and currently member of the Cornell Cooperative Extension Quality of Life program and professor at the Medicolegal And Literary Works, LLC.



The VROM building is dear to me because it is the place where I worked with Hans for many years

My life with Hans

Frans Evers

It was an exciting day in 1987 for the Directorate Research and Advice (Directie Advies en Onderzoek; DAO). The new director-general of the Rijksgebouwendienst (Government Building Agency) would make his first visit to the Directorate and the managers and direct support staff were anxiously waiting for his viewpoints. To show how happy they were, a big delicious champagne cake had been ordered, the best the local bakery could provide. The cake consisted of three capital letters: DAO. Once everybody was seated a knife was given to the director-general. Hans de Jonge said: 'Now I wonder which letter he will cut first'. And he was not so pleased with the answer of the director-general: 'The O, of course, as there is always too much research going on in ministries'. Hans laughed outright.

The director-general who cut the research capital letter, was me. And until today I wonder about Hans' laughter. Was it because he wanted to hide his disappointment or did he hide his knowing that at a given time he would be able to convince me otherwise. I tend to the last, seeing that a few years later Hans became the coordinating director research for the whole ministry. We were able as well to convince the Delft University of Technology that they needed to create a position for a professor for real estate management and that Hans de Jonge should take that position for one day a week.

Not everybody was happy about this move: some pointed out that a chair like that already existed in Amsterdam with Pé Kohnstam; some at the TU Delft feared things to come with the over-energetic Hans de Jonge in their midst. These



The system of priority setting between claims of different ministries was abandoned, although it worked well since 1919 and was admired by other countries as the best to serve all different interests at stake. History has shown how wrong the Minister of Finance was to change that.

people also wanted architecture and public housing to be the essence of the Delft faculty of Architecture and not a subject that was clearly more related to economy then to design and building.

Not only Hans de Jonge saw the need for more research in the domain of real estate. Many others in the real estate world knew that what they did was based on very little research. Coming from the world of environmental protection I was used to decision makers who need scientific proof, even about issues everybody already knew. In real estate I was confronted with a world where a few opinion leaders

stated opinions that were repeated by everyone in the business without any proof. I shared that thought with Hans and many others, including Cor van Zadelhoff and Joost Captijn who was CEO of Jones Lang Wootton at that time.

The real estate world changed, but for many years most stakeholders would not listen or accept new insights. The real estate bubble, the reduced demand of office space, new ideas about a workplace, the importance of ICT and the lack of experienced workers in construction, only a few seemed to really understand what it all would mean for the sector. Hans and his staff, both at the Rijksgebouwendienst and the faculty in Delft, continued to provide data and insights, but many stakeholders were making a lot of money on the short term and did not bother about the mid and longer term future. Hans and I developed insights into the important difference between real estate managers of governments and those of the private sector. A lot was to be learned from the private sector, but for many years decision makers in governments continued to make mistakes.

I was able to share our thoughts at MIT in 1995 were I taught a class in the department of Urban Planning and Environment, thanks to my friend Lawrence Susskind who is responsible for many new developments in planning, especially in the fields of public participation and of negotiation. Through him the win-win negotiation model came to the Netherlands in the beginning of the eighties already, and I was keen to teach that approach to the people in the Rijksgebouwendienst. Hans did visit me in Cambridge MA during my stint at MIT. We shared the possibilities for better negotiators with Susskind and a few other people from the ministry, among them Alexandra van Huffelen, the later alderman in Rotterdam and now, in 2016, the CEO of the Local Transport Authority in Amsterdam. Both she and Hans became aware of the great possibilities of a win-win approach in negotiation, now called mutual gains approach.

These and many other experiences brought Hans to the CEO position of an important consultancy firm in the Netherlands and to a more prominent position in Delft University of Technology. I have never met a person who was able to combine so many heavy responsibilities. Also, Hans is loved by many people for his kindness and for being a great colleague. When we meet either in a conference or at our houses we never have enough time to discuss the past, present and future.

We both deplore the demise of the Rijksgebouwendienst that started in the period that I was away in the USA. The decisions that were taken in my absence were the beginning of the end of a comprehensive real estate policy by the national government. It was decided that the budget for government buildings would no longer be managed by the Rijksgebouwendienst but by the departments themselves. The Rijksgebouwendienst in return would be paid for rents and related costs, but would no longer play a strategic role in the decisions on where, how and for what costs the government buildings should be build, restored, rented or sold. The system of priority setting between claims of different ministries was abandoned, although it worked well since 1919 and was admired by other countries as the best to serve all different interests at stake. I loyally defended those decisions in the circles that had to implement these decisions, but for me it was a signal to move on. The Minister of Finance Gerrit Zalm, who pushed this change, was convinced that if ministries had to decide about their own housing costs, less money should be spent. History has shown how wrong he was.

My direct cooperation with Hans stopped in 1996, but found a continuation when Hans helped me to publish the ideas and courses I developed at MIT. With great help from Pity van der Schaaf and Geert Dewulf I published the book “Public real estate - Successful management strategies” in 2002 at DUP Science. This book would never have seen daylight without Hans support.

When people nowadays ask me, retired since long, what was the happiest period in my working life, I don’t hesitate: the nine years at the Rijksgebouwendienst. This is mainly due to the people I could work with in my direct surroundings, with Hans and his friend Hans Beunderman as the best examples of the creativity and loyalty I have met. Loyalty to the goals of the organization, to each other in the organization, to political and civil servant leadership and to the tax payer. Once Hans has retired from the university, maybe we can share the responsibility to write about these virtues, as they seem to lack so often in present management literature.

Frans Evers is the former Director General of the Governmental Building Agency and CEO of the Nature Monuments Association





The Energy Hans brought to our organization.

Hans de Jonge and the Government Building Agency

Jaap Uijlenbroek, Louk Heijnders, Kees Wassenaar, Wim Jansen, Rutger de Gier en Sawita Gena

Hans, you have a long and special history within the Government Building Agency ,later to be called the Government Real Estate Agency. Your final years in Delft coincided with my initial years at the Government Real Estate Agency. It quickly became clear to me that your reputation within our agency is one to be very proud of indeed.

As you know, it is fairly easy to research into the history of this organization. This has led to some successful insights which have been sketched by Louk Heijnders, Kees Wassenaar, Wim Jansen, Rutger de Gier and Sawita Gena.

Thank you for your wonderful co-operation in the past and good luck in the future.

Jaap Uijlenbroek, Director-General

The power of your philosophical guidance from way back in 1988, entailed that we still introduced your ideas in unchanged form on the 1st of January 2016.



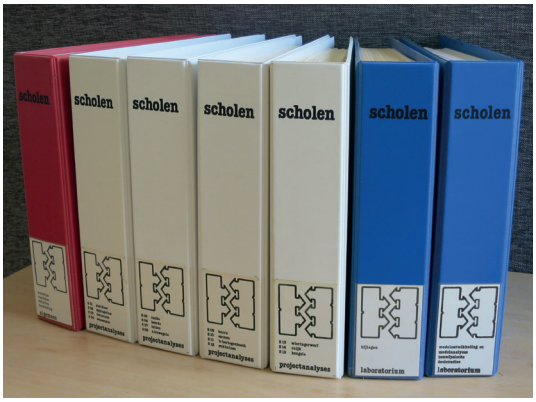





Government Real Estate Agency Research Assignments

In 1982 a research project was initiated by Professor Sterenberg of the Architectural Faculty to look into the relationship between price and quality. Hans was appointed as project leader for this assignment. The research compared secondary-schools both within and outside the state sector







Above: The relationship between price and quality. Middle: The result of the research into price/quality of secondary school buildings. Below: Reports from research into prison construction costs in the Netherlands

The conclusion of this research was that there was no clear connection between price and quality.

In 1985 research again under the auspices of the Government Buildings Agency, was followed by one into prison architecture. Here different types of prisons were compared. Four different designs were developed. The prisons which were constructed in the Netherlands in the late 80s were based on this research project. There were even full-scale prison cell models built by Delft University of Technology to gain insight for this assignment.

From the 1st of January 1986, the research team of the TU Delft became part of the Government Buildings Agency.

The research capacity therefore was fully available to the Government Buildings Agency.

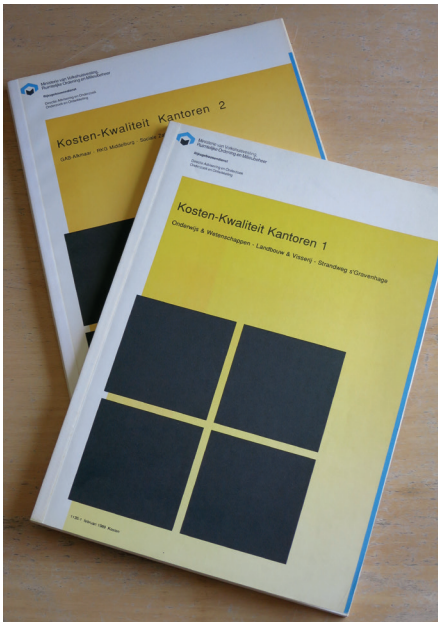
Hans de Jonge, Kees Wassenaar and Wietze van Houten all came to work for the GBA from the TU Delft. Another member of the research team Kees Gerritse remained in the employ of the TU Delft.

Within the GBA, Hans led a number of follow- up research projects; amongst others an assignment looking into the relationship between the cost and quality of office accommodation.

In 1990 research was finalized into the organization of office space. This system integrated dividing walls and furniture. This also included an experiment with the " Ethospace" system; which was carried out in the headquarters of the Advice and research directorate of the GBA on the President Kennedylaan in The Hague.

A facility management system was developed on behalf of Ministerie of VROM by the GBA. This entailed that the registration of space in the new building held a central position. Initially this happened together with the market, later done just by the GBA itself. It was evident that such a system was about the automatization of work-processes and the system which was then on the market was mainly aimed at registering data and not about process-support.

Kees Wassenaar





Above: Reports from research into price/ quality of office space .Below: Reports regarding the office organization system and "innovative office"

The Government Housing Plan

Hans, After your research into the relationship between the price and quality of school and prison buildings you switched from the TU Delft to the GBA. Your first "Piece de resistance" was the 1988 government housing plan. This is where you showed how your creative and innovative thinking could lead to optimum management of the State property portfolio. You grasped the connection between norms, rules, budget and the stock situation. This also covered housing needs via a long-term investment programme; which in turn would lead to expenditure plans for the executive directorates.

Remarkable in what you included in the management concept were:

1. The GBA takes the responsibility for a future-proof portfolio for the lowest amount of expenditure
2. The VROM Minister is responsible for the optimum distribution of buildings across all departments
3. Maintenance gains a higher priority than new buildings

And as is often the case in a political- managerial environment, a new scheme for housing government buildings was introduced in 1999. This new integral management framework was diametrically opposite to what you had proposed. The client paid and therefore he would determine what occurred within the government property portfolio. The service changed into " You request, we supply"

However, the power of your philosophical guidance from way back in 1988, entailed that we still introduced your ideas in unchanged form on the 1st of January 2016. This included amongst other things; norms regarding the use of space, a determination of the portfolio profile, synchronization of supply and demand, centralized management of empty property and decision-making regarding property which only delivered distinct advantages to the state. It might be correct to say that it can take a long time to gain recognition in management circles. But your government property plan is still just as relevant today as it was 28 years ago

Rutger de Gier.

Painting, Pizzas and New Concepts

Hans is not only a hard worker and innovative thinker, but a thoroughly practical man as well if the anecdotes in the department are anything to go by.

In the late eighties, early nineties there was a distinct shortage of maintenance supplies both in the GBA and MINVROM. The result being that the Advice and research Directorate office on the Kennedylaan 21 sorely needed maintenance and its appearance left much to be desired. Especially the interior had a worn and shabby appearance. At the time ,it didn't look as if much could be done to remedy this in the immediate future!

Hans however had a fantastic idea, "We'll do it ourselves and couple it to flexible working-above all it will be good for team-building" And the rest is history! On the ground-floor the furniture was removed and the paint was purchased from the Directorate's budget. On Friday and through the weekend the Directorate's employees painted the inside of the building. Hans, who was apparently possibly not the world's most talented painter acted as pizza delivery boy and foreman. After the weekend the supplier experimented with a new furnishing concept and also delivered and installed the furniture. This is possibly the Netherland's first example of truly flexible working practice!

The "Amusement and Relaxation" Directorate

Some directorates within the GBA had nicknames which possibly revealed the perceptions some colleagues had concerning these organizations. The Engineers department was nicknamed "Order and Discipline" and Hans' department was often called "Amusement and Relaxation". This nickname came from the research and development department which Hans led. This major department consisted of around 45 mainly young employees, who just like Hans, loved hard work but also adored having fun together. It is said that the well-known café "Old Jazz" on the Aert van der Goesstrat profited for many years from this.



The painting team!

The department really gained its infamy through the parties it threw a couple of times a year. There wasn't a budget for these events; however, Hans had an ingenious solution for this! A couple of fellow employees owned large houses and were prepared to allow these to be used for the parties.

Though who would pay for the food and drink? Hans and some other department members were often asked to act as speaker or as coach in various sessions. This was often paid for by the organizations. Within the management team, it was agreed that this money would be paid into an account supervised by Hans' secretary. This account covered the costs of the parties. This concept became more and more successful. To the point where colleagues from other departments such as DG and Finance were also invited. This was excellent for cross-department co-operation and an even healthier research budget.

Louk Heijnders.

I had already been a secretary in the GBA's study and research department for some time when Hans arrived like a hurricane into our midst. Hans became head of the Cost department. He asked me to organize meetings with the other managers at very short notice. Far too short! and therefore not possible. "Ok. Plan it one evening then" he requested. "In the evening" I replied. "All right, I'll give it a go". As you can imagine the changes were not easy to achieve with many colleagues. And so a period in my career began which was far from boring. Lots of overtime-handing him piles and piles of copies for congresses and talks! Statements such as: "We've got till 9.30, I have to be in Utrecht at 10!" were commonplace. Flying close to the wind was one of Hans's greatest hobbies, as was an enormous collection of speeding tickets!

Hans was in the office almost every workday between 6.30 and 7. Hans held a key to the building.

Overtime for me was to start at an exceptionally early hour and frantically write and type documents for the boss. If I had just finished one document, Hans would rush in with the next. Sometimes illustrations needed to be added and this involved lots of scissors and glue, as then digital support was in its infancy. Then, 20 to 25 documents needed to be collated, as the copier had no sorting mechanism. This involved a game of musical chairs around a meeting table with other colleagues putting the papers into the correct piles. Those were the days!

Working late into the evening was also part of the job. One writing and the other formulating and then switching round. One evening I was waiting for Hans. "Where in heaven's name is he" I thought.

I walked down the corridor calling for him to no avail. I went into his office and suddenly heard a muffled sound from behind his desk. There was Hans taking a "power nap". Within half an hour he was working away as a beaver again.

Sawita Gena

Sawita Gena is senior staff member rent administration of the Central Government Real Estate Agency. She knows Hans since 1982 when he joined at the Government Buildings Agency and worked as his secretary for years.

Rutger de Gier is staff member of the Central Government Real Estate Agency, section Portfolio Strategy and Portfolio Management. He knows Hans since the 1989 when they were both staff members of the Dutch Government Buildings Agency.

Louk Heijnders is chairman of the Quality board of the National Police. He knows Hans since 1986 and worked more than 17 years for the Government Buildings Agency as director.

Wim Jansen is staff member of the Central Government Real Estate Agency, section Transactions and Projects. He knows Hans since 1987 when they were both staff members of the Dutch Government Buildings Agency.

Prof.dr. Jaap Uijlenbroek is Director of the Central Government Real Estate Agency, Ministry of the Interior and Kingdom Relations.

Kees Wassenaar is staff member of the Central Government Real Estate Agency, section Portfolio strategy. He knows Hans since 1982 when he was a member of research team at the Architectural Faculty later he moved with Hans to the Dutch Government Buildings Agency.



My place in California. Sun and relaxed! What else do you need?

Hans, the engaged scholar avant la lettre!

Geert Dewulf

Most academics are focusing on the development of contextually independent, value neutral or objective knowledge. Consequently, academic findings produced in the ivory tower of universities are often not implemented in practice. Real estate or construction research is aimed or should be aimed at analysing and designing solutions for complex, socio-technical problems. However, researchers often fail to produce knowledge that practitioners recognise as being practically relevant. As a reaction to the gap between practitioners and academia, several authors (e.g. Van de Ven and Johnson, 2006) have suggested a more engaged or 'community-driven' approach to foster and establish forms of knowledge production in which different professional domains interact and co-operate.

However, despite the growing awareness of the need for more engaged research changing the academic institutional 'cult' is very difficult. There is a strong demand for so-called *institutional entrepreneurs*. Institutional entrepreneurs are individuals who are "designing new organizational forms and routines, creating new supply chains and markets, and gaining cognitive, normative, and regulative legitimacy" (Scott, 2013). This paper recounts the contribution of Hans de Jonge. Hans de Jonge can certainly be seen as an institutional entrepreneur. His work has changed both the academic and industry landscape.



Understanding the need and the role of end-users, and the added value real estate has to the overall performance of organisations, are key factors for success.

Institutional entrepreneur

Institutional entrepreneurs have a specific interest in an industrial sector, and leverage resources to construct new institutions (Maguire et al. 2004). Hans de Jonge is driven by a tremendous willingness to change the real estate and construction industry. He has launched many new initiatives and has been an inspirer of many academics and professionals all over the world. His work on (corporate) real estate management and workplace strategies has changed the real estate landscape.

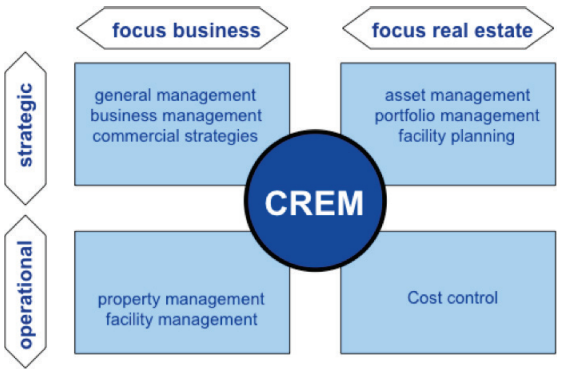
His pioneering studies started as niche or innovation pilots leading to changes of the academic and professional scenery. He used a variety of resources to achieve this goal: funds, his persuasiveness, his communication skills, and his enthusiasm. I was in the fortunate position to work with him in some of these pilots. With Hans, it was never a dull moment.

How did he change the industry and academic practice? We can explain the role of Hans with a well-known institutional change model. Suchman (1995) describes seven stages before a new institution achieves general validation and institutional legitimacy: (1) problem generation, (2) problem cognition, (3) problem naming, (4) response categorization, (5) response comparison, (6) theorization and (7) diffusion. Suchman presents this as a linear model. In practice, institutional change is an iterative process and multi-level development. Due to space constraints, I will confine my recount to some of the elements Suchman describes.

Already before Hans was appointed as professor in real estate management and development at the Delft University of Technology he recognised the strong need for a more mature and professional corporate real estate industry. Real estate was seen as a necessary cost of doing business instead of a strategic resource. His early pioneering work on Corporate Real Estate Management resulting in among others the well-known four quadrant model was aimed at convincing decision-makers that real estate decisions should be taken at board level.

Focus on the end user and adding value by real estate

Understanding the need and the role of end-users, as well as the added value real estate has to the overall performance of organisations are key factors for success. Moreover, the many reports Hans and his group produced and the lectures he gave entailed numerous lessons and tools CRE and FM managers can use and are still using in their daily practice leading to a much more mature profession. Hans was one of the first to recognize that developing a mature corporate real estate industry could only be achieved if organizational, educational and cultural changes are taking place simultaneously. Or, in other words, the three institutional pillars have to be changed i.e. regulative, normative and cultural-cognitive elements (Scott 2012). Regulative elements refer to the rules, regulations and monitoring activities.



Four Quadrant Model
Visualisation of the key role of CREM i.e. its aim to align corporate real estate with organisational objectives and business processes, on strategic and operational level of decision-making, in all phases of the lifecycle of buildings

The work of Hans' PhD students Peter Krumm and Pity van der Schaaf on CRE governance is primarily focused on these regulative elements. The many lectures, which was almost a daily activity of Hans, were more aimed at changing the norms and values of the industry and policy leaders. His enormous enthusiasm during his keynote speeches was aimed at transforming the cultural-cognitive elements or the shared conceptions that create the frames or shared beliefs through which meaning is made (Scott, 2013). But Hans has always been convinced that education is the driver behind the professionalization of the industry. Thousands of students have been inspired by Hans. His views are widely used in textbooks world-wide.

His problem-solving capability is what makes Hans a true engineer and this capability, as Madhavan emphasizes (2016, p. 12), is the reason why "engineers tend to thrive not only in engineering but also outside of engineering". The many lectures and concepts Hans introduced have had changed the mind-set of decision-makers, policy-makers and academia. Obviously, this was only possible through systematic research studies.

National and international impact of an engaged scholar

The pioneering work of Hans and his group at Delft received many responses from other universities. Today, many universities have a real estate, FM or CRE program often inspired by the thoughts of Hans. Moreover, Hans has launched many of these programs and is still an active core lecturer in various schools. Many of the response comparisons have further improved our understanding of the needs of end-users and the governance of CRE.

Hans' early work can be best described as typical examples of a grounded approach, although one of his PhD students, Juriaan van Meel, described this work as 'abducted'. But, the studies of Hans de Jonge started when there was no theoretical understanding of CRE. Theory building was needed to change the CRE practice. Hans did that by having an open mind and adapt concepts and methods from business literature, design studies, public administration and other disciplines. Or, in other words, Hans is by all means a community-engaged researcher. The four design principles of community-engaged research projects (Van de Ven and Johnson, 2006) are certainly applicable to Hans' work: (i) address complex and striking problems that are grounded in the experience of practitioners, (ii) involve practitioners as co-investigators so that complementary perspectives are shared, (iii) build relationships of trust and candour through extended project duration, and (iv) employ multiple models and methods to juxtapose and compare alternative explanations for the complex problem. In academic practice, however, it is difficult to find examples of engaged scholarship. Bartunek (2007) argues that the challenge particularly lies in establishing academic-practitioner relationships that require relational skills to span the boundaries between both groups.

Hans has been working on both sides of the spectrum. His work has been widely valued by both practitioners as scientists. His concepts are cited in various papers and handbooks, and are also used in practice. Not many academics can say they had such a strong impact on the industry or policy-makers. Moreover, the aim of Hans as an engaged scholar is to produce knowledge that advances both science and practice. By doing so, engaged scholars may diminish the practicality and legitimacy of the research and contribute to the further manifestation of two divided knowledge domains (Dainty, 2008).

Bridging the gap

Most engaged scholars emphasize the importance of bridging the gaps between disciplines and establish forms of knowledge production in which different professional domains interact and co-operate. Hans always stressed the importance of co-locating disciplines in order to design innovative solutions.

Hans' work did not only change the industry and the university landscape, his work had and has a tremendous impact on my own way of thinking. Trained as an analytical social scientist I started to work with Hans more than 25 years ago. Despite my predilection for the critical social theory of the Frankfurter Schule (a.o. Habermas and Adorno) I was used to test hypotheses and not to design solutions for the problems of tomorrow. Formulating recommendations was even hard for me because there was simply not one truth. Moreover, there was always a chance that my results could be disputed by other studies. Hence, how could one criticize societal concepts and design new ones with so many uncertainties? Hans, however, was trained as a designer. His thrust was and is to design new products. Hans sees science as a means to improve society. Consequently, during my first study with Hans on the future of the office market we had numerous clashes, even resulting in the submission of my resignation. Fortunately, Hans did not accept my resignation resulting in a great research result leading to a broad discussion with decision-makers, politicians, industry

leaders and the general public. This was the first time I stepped out of my comfort zone, protected by the walls of the university. Being engaged is rather scary but very rewarding. My love for design and engineering was born.

Until today, I am very grateful for the opportunity Hans gave me. Working with him has been an interesting journey.

References

Bartunek, J.M. (2007) Academic-practitioner collaboration need not require joint or relevant research: toward a relational scholarship of integration. Academy of Management Journal, 50 (6), 1323-33.

Dainty, A. (2008) Methodological pluralism in construction management research in Knight, A. and Ruddock, L. (eds) Advanced Research Methods in the Built Environment, Wiley-Blackwell, Oxford, 1-13.

Madhaven, G. (2015) Think like an engineer; Inside the minds that are changing our lives, London.

Scott, W.R. (2012) The institutional environment of global project organizations. The Engineering Project Organization Journal (2), 1, 27-36.

Suchman, M. C. (1995). Localism and globalism in institutional analysis: The emergence of contractual norms in venture finance. The institutional construction of organizations, Sage, Thousand Oaks, 39–63.

Ven, A.H. van den and Johnson, P.E. (2006) Knowledge for theory and practice. Academy of Management Review, 31 (4), 802-21.



The Future of The Office Market

This was my first study with Hans. I as the analytical trained academics trying to validate all my outcomes; Hans as the engaged scholar looking for solutions for the industry. The clashes between our ways of thinking resulted in an excellent report. It was also my first experience with externally funded research: the costs for marketing and layout exceeded the research costs.



The Family Dewulf says hello to Hans and wishes you all the best for the future!
Hope to see you soon in beautiful Delden!

Prof. Dr. Geert Dewulf is professor of Planning and Development at the University of Twente, the Netherlands. In 2012-2013 he was the UPS Foundation Visiting Professor at Stanford University. He is a former staff member of the Real Estate Management section of the Department of Management in the Built Environment, Faculty of Architecture TU Delft. Currently he is the dean of the Faculty of Engineering Technology at the University of Twente.



Hans at the symposium of The Future of office market



One of my favourite places: The Sipalawini river in the interior of Suriname. A memorable journey looking for the 'Blue dart frog' together with my fellow PhD candidate Ron van Oers.

An academic virus

Peter Krumm

It is hard to recall when Hans and I first met. It must have been somewhere in the summer of 1994. By that time, I was participating in a two-year joint program of the Technical Universities of Delft and Eindhoven. I had a rough idea about the topic that I was going to focus on; a more professional and business wise manner of managing corporate real estate portfolios. Our first meeting was a confrontation of similar minds and thoughts. The meeting ended in your willingness to mentor me in writing my thesis and in an invitation to join you the next morning at a meeting of real estate professionals; the International Development & Research Council. This was the start of a working relation between the two of us that lasted for more than five years until a few months after completing my PhD.

Already during the two-year program you asked me if I would be interested in a continued stay at the Department of Management in the Built Environment (MBE), formerly known as Real Estate & Project Management ('Bouwmanagement & Vastgoedbeheer' abbreviated as ' BMVB'). Although the topic of corporate real estate management was an intriguing one, the entire setting of BMVB, the 13th floor, and the entrepreneurial inspiring atmosphere that you and Bas Menheere had created was definitely just as decisive in my decision to start working on my PhD.

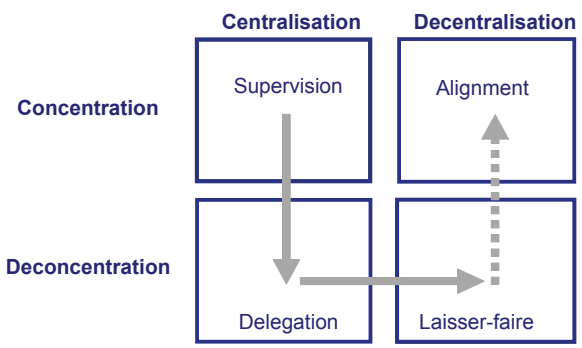


One of my propositions "The opinion that design research is solely related to disciplines dealing with product design ignores the fact that processes are also designed."

The topic and nature of my PhD was different from most other theses at the faculty of Architecture until that time. Elaborating on management of a real estate portfolio rather than on designing new buildings was not common. It must have taken an effort from you to convince your colleagues in the PhD committee that real estate management was definitely part of the research domain belonging to the faculty of Architecture. The dilemma that we faced eventually even got a spot in my propositions "The opinion that design

research is solely related to disciplines dealing with product design ignores the fact that processes are also designed."

Building a theory on case studies was also not common within the Bouwkunde discipline. Introducing abductive reasoning proved to be the terminology to accept the construct of my research proposal. Abduction means determining the precondition. It focuses on conclusions and observed 'rules' to assume that a precondition can explain the conclusion. Example: "When it rains, the grass gets wet. The grass is wet, it must have rained." The comparative analysis of eight Dutch multinationals revealed sufficient observations and inferences to construct a theory on corporate real estate management in multinational corporations. Although each of the corporate's had its own specific characteristics, all of them showed similar patterns. All corporate real estate departments showed to display similarities in the evolution of their responsibilities and in its position within the corporation.



Transitions in the level of centralisation and concentration. All eight multinational corporations that were analysed display a similar evolution of their perspective on the added value of corporate resources and capabilities. The corporate real estate management functions evolve, in all eight corporations, from a centralised 'executive' department to a form of cooperative alignment. This transition is dominantly shaped by the lifecycle of a corporation and the market in which (a subsidiary of) a corporation is active.

When thinking about those years, I remember the informal meetings we had late at night at your office on the 13th floor of Bouwkunde or on Sunday afternoons at my place in Rotterdam. At these moments, there was time to reflect on the intellectual challenges of my thesis and on maintaining the practical relevance of the work; struggling together with theoretical frameworks, discussing outcomes and observations, and sketching explanatory exhibits. Those moments, free from disturbing students and colleagues, always gave me renewed energy and inspiration.

A special place in my memory is also reserved for the course M4. During two years, I participated in your course on real estate management. The M4 was the final course for BMVB students. Your (evening) classes and the required active participation of the students required 100% of their attention. Although very inspiring for students, it was probably a very strenuous course as well. During my years in the M4, I provided material for the case study of Philips International. Memorable are the weekends we needed to review over a hundred individual student reports . It took us - you, Alexandra den Heijer, Gert Joost Peek and I – our entire energy, but it was always more than pleasant assessing, peer reviewing and grading all the reports.

During the years at the Faculty of Architecture, you, Geert Dewulf and I established a stronghold in research on corporate real estate through participating in international research programs, organising executive courses, and publishing more articles and papers than many others at the faculty. All these extra curriculum activities opened up the necessary contacts and inspiration to finish my PhD. You, being a man of practise and theory, understood the relevance of all these activities for the eventual relevance of my PhD thesis and for the fun-factor in my work.

After finishing my PhD, I left the university and the real estate industry, and started working for a corporate strategy and finance boutique. Although I left the university as a professional work environment, I continued to give lectures and write papers. Apparently during all those years in Delft, your enthusiasm for lecturing had infected me; some kind of academic virus had gotten hold of me. Three years after finishing my PhD, I stopped lecturing and writing about corporate real estate. The urge to develop and share thoughts with others, however, continued to affect my life. Over the years, my focus has changed from real estate to public policy to public transport.

Working with you and working on my PhD has strengthened my analytical and creative skills and made me continuously looking for opportunities, curious and open for new ideas. These skills have proven to be beneficiary in all my jobs up till now. I have been working in the public transportation sector for over a decade now. After ProRail and NS, I currently work for Transdev; the holding company of Connexxion and Veolia. Within Transdev Nederland, I am responsible for strategy, innovation and business intelligence. Part of my work is initiating partnerships with universities and knowledge institutes and participating in research programs. Apparently, the virus continues to be alive and kicking. In all these tasks, I often reflect on the inspiring combination of research, education and day-to-day practice which you not only promoted, but also consistently practised yourself. The virus must be contagious.

I wish you all the best.

Dr.ir. Peter Krumm is a former PhD candidate of Hans de Jonge and staff member of the Department of Management in the Built Environment, Faculty of Architecture TU Delft, currently Manager Strategy and Business Intelligence at Connexxion



Hans de Jonge, Geert Dewulf and Peter Krumm on excursion in Berlin, 1994



The Aestate office in Odijk is dear to me because it is warm, combines monumental quality with modern working comfort, fits Aestate like a flexible yet tailor-made suit and inspires me daily to be creative and find real estate solutions that fit, both now and in the future. Please feel free to visit Jackie and me anytime you like. Although I doubt whether you have more spare time after you retire…

Public Real Estate Management: Challenging myself

Pity Jongens – van der Schaaf

The first words that come to mind when writing something for your liber amicorum are inspiring, humour, interested, warm and professional.

Inspiring

I still remember the first time I met you. It was at the start of the 'M4-module' in 1994. I remember the way you were able to inspire a classroom with over 100 students. Like me, they all were gripped by your lectures: interesting, funny, fast, and never boring. Also the way we had to work in small groups on a case and present our findings was very challenging and made that we really understood what corporate and public real estate management was all about. It inspired me and marked the start of my professional career in this field.

During my graduation project on public real estate management in 1996, Geert Dewulf asked if I was interested in conducting a PhD-research. I reluctantly agreed to talk about the options with you and Geert. For me, a PhD meant spending 4 years in a dusty office reading a lot of books… Yet again, you were able to inspire me. You ensured that I could pick the subject and that the subject would have connections to the real estate practice. I suggested to do an international comparative analysis on the management of public real estate by Governments.



Although you work very hard (too hard?) and have a very busy agenda, I experienced that you always had an eye for the person behind the researcher. You made time for me when I really needed it.

You and Geert were instantly enthusiastic and saw many options. So, I started as a researcher for the research program Economic Real Estate Management; a coproduction between TU Delft and the Government Buildings Agency. After two years I finally started my PhD and ended up travelling around the world, meeting many inspiring people and seeing many beautiful places! Being abroad inspired me to further travel the world, which I still do with Martijn, Femke and Thijmen.

Humour

During the time I worked at the department 'Bouwmanagement & Vastgoedbeheer' we also worked together in education; organising the modules 'Corporate Real Estate Management' for students in Delft and Amsterdam. Part of these modules was writing and individual assignment. For us, this meant reviewing over a hundred student assignments, all describing a real estate strategy for the same company. Although this has all the ingredients to be a boring task, it never was. We would ask the student assistant to find us a good hotel; we would lock ourselves (with Alexandra and Gert-Joost) in a room and start reviewing. But we would also start laughing, enjoying both very good and very bad assignments, making a lot of jokes or go out for a refreshing walk. And after 2 days of reviewing, all students had their well substantiated marks.. And we had a great time with humour.

Truly interested and warm

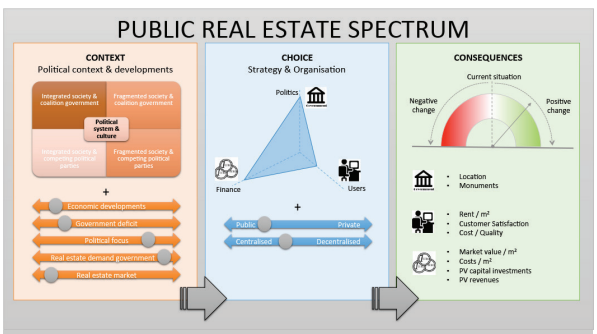
Although you work very hard (too hard?) and have a very busy agenda, I experienced that you always had an eye for the person behind the researcher. You made time for me when I really needed it. Whether I needed it because I didn't know how to proceed with my research, or whether I had some personal issues. You always asked the right questions. Questions that I hadn't thought of myself; questions that helped me choose the best path. They stimulated me to dig deeper or to let it go when necessary. And even now - 14 years after I finished my PhD - when we meet, I still feel your warmth and true interest in both my professional career and me as a person. I treasure these moments.

Professional

In everything you do, even in the details, you apply a high standard. I think this is one of things that characterises a true professional. I appreciate how the standard you set for my PhD research, the book we wrote with Geert Dewulf and Frans Evers and the way we organised the educational modules, created the base for how I like to do my work nowadays. And the content and results of my PhD research made me realise that real estate strategies have to be custom made, without being a tailored suit, that gives no room for change. In my PhD, I analysed the reasoning that goes behind changes in the organisation and focus of public real estate management. Further, I analysed the relation between contextual developments and the changes that have been introduced. By applying 3 extreme public real estate strategies in different contexts and determining the political, financial, and functional consequences, my research showed that there is not one best way to manage public real estate, or one best strategy. This knowledge and way of thinking is what I still apply every day in my work as a consultant. For every question asked, I approach as a new question, in a new context that needs a new solution. It keeps me creative, curious and guarantees professional answers.

Hans, thank you for the inspiration, humour, interest, warmth and professional guidance! I will cherish my time at TU Delft as a perfect start for a successful career. I wish you all the best with Alexandra, your children and grandchildren and know that you won't stop working or inspiring people now that you retire!

PS. specially for you signed with my maiden name!



Conceptual model of relationships between context, strategic choices and consequences. PREM: Challenges for Governments

dr.ir. Pity Jongens – van der Schaaf is a former PhD candidate of Hans de Jonge and staff member of the Department of Management in the Built Environment, Faculty of Architecture TU Delft, currently co-director of Aestate BV consultancy

Eigendom vastgoed rijksmusea

Lessen voor een eventuele overdracht



TU Delft

rem group research

In 2012 Hans de Jonge and Monique Arkesteijn led the research in Public Real Estate management into ownership of museums



Hans thank you for being my role model, you are a sheep with five legs.

Is ‘Everything of value defenceless’?

Monique Arkesteijn

In the 25 years that we know each other, you have repeatedly quoted Lucebert’s famous sentence ‘Everything of Value is defenceless’ from the poem ‘The very old one sings’ which he wrote in 1974. At those moments I immediately ‘see’ this sentence in red letters on top of a building in Rotterdam. In our talks I often implicitly and immediately agreed with you, but due to my PhD study, I am presently convinced that everything of value is defensible. Now that you are leaving I must admit I only knew this particular sentence and not the poem, therefor I examined both of them more closely. Leentje Volker also referred to the poem in the liber as do I and I have used her translation of the poem.



Everything of value is defencesibless. If we give everything of value, our preference value becomes defensible.

Uit het gedicht van Lucebert
de zeer oude zingt:
er is niet meer bij weinig
noch is er minder
nog is onzeker wat er was
wat wordt wordt willoos
eerst als het is is het ernst
het herinnert zich heilloos
en blijft ijlings

alles van waarde is weerloos
wordt van aanraakbaarheid rijk
en aan alles gelijk

als het hart van de tijd
als het hart van de tijd

Everything of value is defenceless

there is no more with little
nor there is less
still uncertain what was
what is becomes spineless
just when it is, it is earnest
it recalls unwholesome
and remains posthaste

everything of value is defenceless
will be rich by being touchable
and equal to everything

like the heart of the time
like the heart of the time

The explanation of the poem I found in a paper of Hofman[1]. He explained that the poem is rather philosophical and needs to be quietly taken into you, chewing and regurgitating. Actually it is best to say it out loud. Hofman indicates that the core of the poem is that: ‘only when it is about that what is, here and now, it becomes serious. The quality of being is determined in the absolute now: how conscious you are present in the here and now. And what is truly valuable - when it comes down to real life - is vulnerable. You cannot ‘grab’ it, or hold on to it; but you can touch it or be touched by it. This touch ability makes life rich. The final line of the poem

reiterates this: “the heart of time ‘is the present in which everything of value is touchable, and closer than we think.

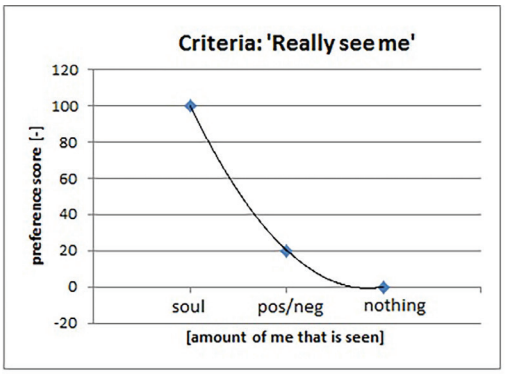
Why do I think that value is, in light of this explanation, not only defenceless but also defensible. It is defensible, because we can try -time and time again- to be as conscious in the present as possible. And Hans, you are very good at this, in fact you probably were the very first Buddhist I met in my life. Because however busy you always were and are, you are able to be present in the moment.

And how does this relate to the PhD study? When I came to work at the Faculty in 2003 I wanted to specialise myself in ‘love and the built environment’. Because my assumption was that whatever we make or do becomes better if we approach the other with love, as if they are our children or our parents. Because, don’t we, want the best for them? And the ‘best’ depends on what the individual person wants, it could be something beautiful, functional, affordable or any combination in between. However, the word ‘love’ sounded too soft and was difficult to grasp therefor I started to use the word ‘value’ very quickly as value and adding value is one of our main research themes. And I was challenged by the question ‘how do you actually know that you have added value and especially whether you are optimally attuned?’. Therefore I connected besides you in 2010 also to Peter Paul van Loon with his knowledge about his scientific philosophy, Ruud Binnekamp with the methodical practical application and Jonathan Barzilai with his fundamental knowledge on decision making and the measurement of preference.

This brought me examine value closer, in my PhD research, value is equal to quality, utility and preference. I know that not everybody agrees with that and that they do not have an identical meaning for instance in the online Longman Dictionary of Contemporary English. However, although the terms are not identical, the commonality in all definitions makes that I use the terms as equals. All terms are about ‘a judgement’ about ‘something’ by ‘someone’ either implicitly or explicitly. In almost all definitions of value, utility, quality and preference a judgement is given. These judgements are mostly specified, often as a positive judgement about something (like high, very good, more, useful, important etc.), sometimes as a positive or negative judgement (like good or bad, more or less). In the case of value the judgement is also commonly expressed in monetary terms. Rarely a ‘neutral’ judgement is given, once for value as an amount and once for quality as a characteristic, attribute or property. In the definitions it is mostly not specified about what the judgement is given, they refer to ‘something’ in general and in some occasions the definitions do not indicate what was judged. In some definitions for value, quality and preference it is indicated who is giving the judgement, but mostly this is not specified. Valuing is in essence a human cognitive judgement. The essence of this research regarding value is that the above mentioned parts are explicitly separated from one another: (1) the someone (s) that judges, (2) the something, i.e. characteristic, that is judged and (3) the judgement itself.

I will show you how these are explicitly separated from each other by using a personal example about the decision ‘to select a PhD promotor’. The person that judges (1) in this specific case is me. The two most important characteristics (2), i.e. criteria, for me when selecting a promotor were: he or she needs to be able to ‘really see me’ and related I need to ‘feel safe to be myself ‘. To explain the first, to really see me means for me, to see my good and bad qualities but most importantly to also see inside my ‘soul’. To see what drives me and what makes me vulnerable. The last step (3) is to make the judgement, i.e. the measurement of the stakeholder preferences. During this step, the stakeholders determine the relationship between the physical values for each criterion and their preference[2]. They do this by establishing a top and a bottom reference alternative, with respectively a preference rating of 100 and 0, supplemented with a third alternative that determines the shape of a so called Lagrange curve (see figure). The preference value 100 is given to be completely seen. A score of 0 is given to not be seen. The in between preference score is given to ‘see positive and negative qualities but not the soul qualities scores 20.

After the curves have been made the alternatives, in this case the possible promotors are scored on the criteria by the decision maker. As comes to no surprise you came out best, you scored 100 on both criteria. Hans, thank you for all your wisdom, friendship and seeing me as you do. It is priceless.



And back to the essence: making a new proposition

'Everything of value is defenceless and defensible' at the same time. Value is defensible, as stated, because we can be conscious in the present, but we can do more, we can make value explicit and measurable as shown in my PhD research. Value is also defenceless, because indeed we cannot hold on to the things or events we value in the future.

Everything of value is defencesibless
If we give everything of value
Our preference
Value becomes defensible
Not for ever
But for now
As long as it takes
The value experienced

Alles van waarde is weer-loos-baar
Als wij alles van waarde
onze voorkeur geven
dan wordt de waarde weerbaar
Niet voor altijd
Maar wel nu
voor zolang als het duurt
De waarde geleefd

Monique Arkesteijn is PhD candidate of Hans de Jonge, assistant professor of Real Estate Management (REM) and head of the REM section at the Department of Management in the Built Environment, Faculty of Architecture TU Delft.

Notes

[1] The article can be found at: http://www.trouw.nl/tr/nl/4324/Nieuws/article/detail/1681924/2006/01/31/De-filosofie-van-een-weerloos-citaat.dhtml.
I have downloaded it in June. The translation and selection of the meaning of the poem is mine. If somehow I have misinterpreted it, that can only be my mistake.

[2] I will not go into detail about how this is done exactly here, but my work is based upon Barzilai's (1997) preference function modelling and Binnekamp's (2010) dissertation on preference based design. In the example an evaluation of alternatives, i.e. possible promotors, is made. In my phd the alternatives are not only evaluated but also designed. This is done is a six step PAS procedure which is explained in detail in Arkesteijn and Binnekamp (2013) and tested in two pilot studies (Arkesteijn et al 2015).

References

Arkesteijn, M. H. and Binnekamp, R. (2013) 'Real estate portfolio decision making' in Gheorghe, A. V., Macera, M. and Katina, P. F., eds., Infranomics: sustainability, engineering design and governance, Dordrecht: Springer, 89-99.

Arkesteijn, M. H., Valks, B., Binnekamp, R., Barendse, P. and De Jonge, H. (2015) 'Designing a preference-based accommodation strategy: A pilot study at Delft University of Technology', Journal of Corporate Real Estate, 17(2), 98-121.

Barzilai, J. (1997) A New Methodology for Dealing with Conflicting Engineering Design Criteria, translated by 73-79.

Binnekamp, R. (2010). Preference-Based Design in Architecture. Delft University of Technology.



Monique has known Hans since 1991 and co-organised his inaugural party in 1992.

Adding value by real estate





Two of my favourite places: our country house near Ermelo at the Veluwe in the Netherlands and the nearby Beekhuizerzand, a sand drift with the heath in full bloom. Both places represent an important added value: a good quality of life.

The Delft legacy of Adding Value by CREM

Theo van der Voordt

Pioneering in adding value by corporate real estate

In the late nineties Hans de Jonge presented a key note on possible added values of Corporate Real Estate at a EuroFM meeting in Rotterdam and a similar key note at a conference of the Dutch Study Centre NSC. He discussed seven ways to add value to an organisation by appropriate real estate: increasing productivity, reducing costs, facilitating flexibility, increasing the value of assets, controlling risk, supporting organisational culture and enhancing marketing/PR. His presentations were in line with a paper by Nourse and Roulac (1993) about *Linking real estate decisions to corporate strategy*. In this paper the authors presented a list of eight "alternative real estate strategies":

1. Occupancy cost minimisation
2. Flexibility
3. Promote human resources objectives
4. Promote marketing message
5. Promote sales and selling process
6. Facilitate and control production, operations and service delivery
7. Facilitate managerial process and knowledge work
8. Capture the real estate value creation of business



The ongoing research on Added Value provides more evidence on how CREM and FM can add value to organisations and their primary processes and opens the black box of input -> throughput -> output -> outcome -> impact/ added value.

Follow-up

The presentation by Hans led to a fierce debate and inspired many researchers to work on this topic. Quite soon after Hans' presentations a first Delft scientific paper was published in 1998, entitled "*Managing Key Resources and Capabilities: Pinpointing the Added Value of Corporate Real Estate Management*", by PhD candidate Peter Krumm and his promotors Hans de Jonge and Geert Dewulf. In 2007 Jackie de Vries finished

her PhD thesis on possible contributions of real estate to the performance of Dutch Universities of Applied Science, under Hans' supervision and with myself being her co-promotor. Hans was also one of the interviewed experts who gave input to the PhD research of Anna- Liisa Lindholm (2008) in Finland on *Identifying and measuring the success of corporate real estate management*. Alexandra den Heijer worked on adding value by real estate in joint research projects with universities for over ten years. This resulted in 2011 in her PhD thesis on *Managing the University Campus*, with Hugo Priemus being her promotor and me the co-promotor. Later on Hans and I jointly supervised Chaiwat Riratanaphong (2014) on *Performance Measurement of Workplace Change in two different Cultural Contexts,* and Johan van der Zwart (2014) on *Building for a Better Hospital: Value Adding Management and Design of Health care Real Estate*. These PhD projects elaborated the lists of possible added values of corporate real estate and developed conceptual frameworks to explore the relationships between input (human resources, capital, information, technology, real estate and other facilities), throughput (processes) and output (changed organisational performance).

In 2009 I met Per Anker Jensen at the European Facility Management Conference in Amsterdam. Per Anker Jensen is professor of Facilities Management at the Technical University of Denmark. Before that he worked a long time as an FM practitioner. He had initiated a project on Added Value when he was the chairman of the Research Network Group (RNG) of EuroFM in 2007-2008 and started a EuroFM research group on Added Value of FM in 2009. I immediately decided to join this group. In 2012 the group produced an Anthology on the Added Value of FM in 2012. As a co-editor of this book I tried to incorporate all "Delft" knowledge about the added value of CREM. Our collaboration generated a number of other publications on adding value by CREM and FM. The collaboration was very fruitful and resulted in a second book on FM and CREM as Value Drivers (2016).

The next table presents an overview of the Delft legacy in building a body of knowledge on the added value of real estate and other physical resources and services.

Legacy of Hans de Jonge and his team regarding adding value by CREM and FM

1996 | De Jonge The added value of corporate real estate ('De toegevoegde waarde van concernhuisvesting'). Paper presented at the Dutch Study Centre (NSC) Conference, 15 October 1996.

1998 | Krumm, Dewulf & De Jonge "Managing Key Resources and Capabilities: Pinpointing the Added Value of Corporate Real Estate Management." Facilities 16(12), 372-379.

2000 | Dewulf, Krumm & De Jonge, Successful Corporate Real Estate Strategies. Nieuwegein: Arko Publishers

2002| Van der Schaaf, Public Real Estate Management Challenges for Governments. An International Comparison of Public Real Estate Strategies. PhD thesis.

2002 | De Jonge, The development of CREM ('De ontwikkeling van Corporate Real Estate Management'). Real Estate Magazine, 22, 8-12.

2003 | Krumm & De Vries, "Value Creation through Management of Real Estate". Journal of Property Investment and Finance, 21, 61-72.

2007 | De Vries, Performance through Real Estate ('Presteren door vastgoed').PhD thesis.

2008 | De Vries, De Jonge & Van der Voordt, "Impact of Real Estate Interventions on Organisational Performance". Journal of Corporate Real Estate 10(3), 208-223.

2009 | Koppels, Remøy & De Jonge, "The Economic Value of Image". PropertyNL Research Quarterly 8(3), 31-38.

2010 | Jensen & Van der Voordt et al., "The Added Value of FM: Different Research Perspectives". Conference paper EFMC2010, Madrid.

2011| Den Heijer, Managing the University Campus. Information to Support Real Estate Decisions. PhD thesis.

2011 | Prevosth & Van der Voordt, The Added Value of FM: concepts, interventions, and priorities in the health care sector. FMN report, in Dutch.

2012 | Jensen, Van der Voordt & Coenen (eds), The Added Value of Facilities Management. Concepts, Findings and Perspectives. With contributions by Hans de Jonge, Alexandra den Heijer, Chaiwat Riratanaphong, Theo van der Voordt and Johan Van der Zwart. Lyngby: Polyteknisk Forlag

2012 | Jensen & Van der Voordt et al., "In Search for the Added Value of FM: What we know and what we need to learn". Facilities, 30(5/6), 199-217. Lyngby: Polyteknisk Forlag

2013 | Jensen, Van der Voordt et al., "How can Facilities Management add value to organisations as well as to society?" Conference paper CIB World Building Congress, Brisbane.

2013 | Van der Zwart & Van der Voordt, "Value Adding Management of Hospital Real Estate. Balancing Different Stakeholders' Perspectives". (E)Hospital 3(13), 15-17.

2014 | Jensen & Van der Voordt et al., "Reflecting on Future Research concerning the Added Value of FM". Facilities 32(13/14), 856-870.

2014 | Van der Voordt & Jensen, "Adding value by FM: Exploration of Management Practice in the Netherlands and Denmark". Conference paper EFMC2014, Berlin.

2014 | Jylhä * & Junnila, "The State of Value Creation in the Real-estate Sector. Lessons from Lean Thinking". Property Management 32(1), 28-47.

2014 | Riratanaphong, Performance Measurement of Workplace Change in Two Different Cultural Contexts. PhD thesis.

2014 | Riratanaphong & Van der Voordt, "Measuring the Added Value of Workplace Change. Comparison between Theory and Practice". Conference paper CIB Facilities Management Conference, Copenhagen.

2014 | Van der Zwart, Building for a Better Hospital. Value-adding Management & Design of Healthcare Real Estate. PhD-thesis.

2015 | Van der Zwart & Van der Voordt, "Adding value by Hospital Real Estate. An exploration of Dutch practice". Health Environments Research & Design Journal 9(2), 52-68.

2015 | Jensen & Van der Voordt, "How can FM Create Value to Organisations? A Critical Review of Papers from EuroFM Research Symposia 2013-2015". Conference paper EFMC2015 and EuroFM report.

2016 | Van der Voordt, "Adding Value by Health Care Real Estate: Parameters, Priorities, and Interventions". Journal of Corporate real Estate 18(2), 145-159.

2016 | Jensen & Van der Voordt, 2016, Facilities Management and Corporate Real Estate Management as Value Drivers: How to Manage and Measure Adding Value. With contributions by Hilde Remøy, Aart Hordijk, Rob Geraedts, Juriaan van Meel, Theo van der Voordt, Sandra Brunia (CfPB) and Iris de Been (CfPB). London/New York: Routledge/Taylor & Francis Group

* Staff member of Hans de Jonge since 2016.

Lessons learned

Corporate Real Estate Management is slowly but clearly shifting from perceiving real estate as a necessary burden and a focus on cost reduction towards a growing interest in the benefits of real estate for business purposes. The ongoing research into the added value of real estate and other facilities and services has shown that it is rather difficult to "prove" cause-effect relationships between corporate or public real estate interventions and organisational performance, due to the many influencing factors. Usually an intervention in corporate real estate goes hand in hand with other changes, both internal (e.g. organisational change, new ways of working, different management style) and external (changes in the labour market, economy, legislation, real estate market and so on).

This does not mean that we should give up to collect evidence on the impact of corporate and public real estate on the performance of organisations as a whole, business units, teams, and individual employees. The Eastern story about a drunk who was searching his keys on a different place than were he thought he lost them "because here shines the light" is funny, but we need to search for information that is relevant from both an academic point of view and for decision-makers in practice, even if it feels like searching in the dark. Fortunately many researchers took the effort and still do. From their efforts many interesting findings came to the fore.

Definition of Added Value / Adding Value

De Vries (2007) and Den Heijer (2011) defined the added value of real estate as the contribution of real estate to organisational performance and the attainment of organisational objectives from a point of view of different stakeholders. In this definition, cost reduction is perceived as one of the possible added values of real estate interventions. Jensen & Van der Voordt et al. (2012) position the investment and running costs of interventions at the input side and cost reduction at the output

side. They define added value as "the trade-off between the benefits and the costs and risks to achieve these benefits". In addition to added value, the more active verb "adding value" is being used as well, emphasizing that adding value is a (continuous) process that has to be managed effectively and efficiently.

Adding value for whom?

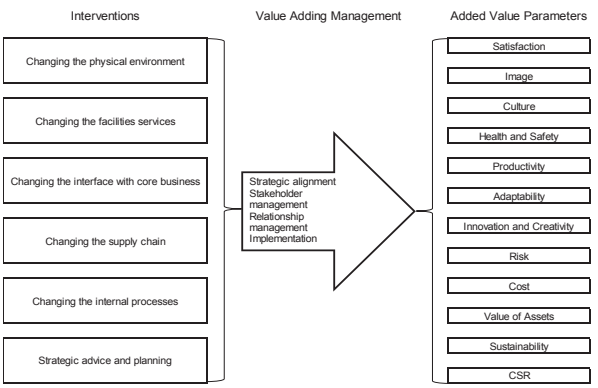
Whereas most publications do not explicitly discuss who profits of the benefits and who has to pay the bill, various publications link added values explicitly to various stakeholders. In the NEN-EN 15.221 a distinction is made between the clients, customers and end users. De Vries (2007) mentioned various stakeholders as well, whereas Den Heijer (2011) linked a number of different added values to four stakeholder perspectives: policy makers (strategic value), controllers (financial value), technical managers (sustainability) and the end users (functional value). In the PhD work of Lindholm, the focus was on shareholder value.

Multi-dimensionality of adding value

Over the years different value types have been presented and assessed by a review of the literature, analysis of documents and interviewing relevant stakeholders. De Jonge (1996) started with a list of seven value parameters. De Vries extended this list by adding increasing employee satisfaction as another possible added value of CRE. Den Heijer (2011) added sustainability to the list and split and/or renamed various other value parameters, coming up with a list of 14 different added values (see her contribution on campus management to this Liber Amicorum). Riratanaphong (2014) and Van der Zwart (2014) compared various lists of value parameters and in the end defined their own lists as well.

Based on interviews with practitioners in Denmark and the Netherlands and various case studies Per Anker Jensen and I found that in practice, too, many different terms are used to express possible added values of CRE. Instead of productivity terms such as "contributing to business" or "supporting business activities" are used. Instead of employee satisfaction related values such as "well-being" are used, or – closer to business objectives – attracting and retaining employees, in connection to the "war on talent".

Apparently, the lists of ways to add value change over time and no consensus exists yet about which parameters are key and which terms represent various value parameters most appropriate. Based on a sound comparison of many lists, Jensen, Van der Voordt & al. (2016) analysed all lists so far and came up with a list of 12 parameters.



12 value parameters mentioned by Per Anker Jensen & Theo van der Voordt (2016)

Clustering of added value parameters

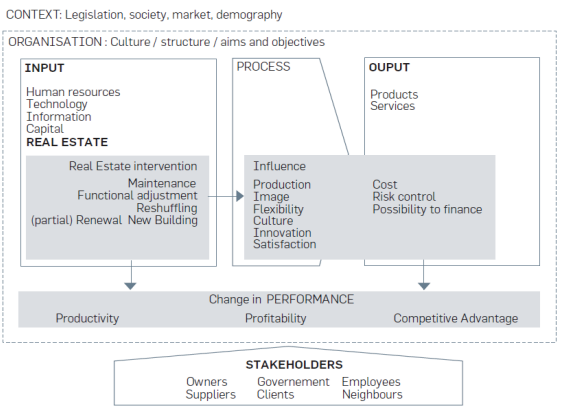
The lack of consensus also holds true regarding how to cluster different values into a few key categories. De Vries (2007) summarised all influences of real estate on organisational performance in three main indicators: productivity, profitability and competitive advantage. Den Heijer (2011) added a fourth key value i.e. sustainability. Furthermore she linked the four types of values to four organisational objectives and related stakeholders:

- productivity <-> functional goals / end users;
- profitability <-> financial goals / controllers;
- competitive advantage <-> strategic goals / policy makers;
- sustainability <-> physical goals / technical managers.

Riratanaphong clustered the values mentioned by different authors into six categories according to Bradley (2002): stakeholder perception, financial health, organisational development, productivity, environmental responsibility, and cost efficiency. Jensen, Van der Voordt et al. (2012) found over 50 different definitions of added value. Based on an content analysis they detected six types of added value: 1) use value (quality in relation to the needs and preferences of the users); 2) customer user value (trade-off between benefits and costs for the users); 3) economic, financial or exchange value (the economic trade-off between costs and benefits); 4) social value (e.g. supporting positive social interaction or reinforcing social identity); 5) environmental value (Green FM, environmental impact of FM); and 6) relationship value (e.g. getting high-quality services or experiencing a special treatment).

Input-throughput-output-outcome

De Vries (2007) presented a conceptual model that shows both direct and indirect influences of real estate on organisational performance. This model is based on the well-known triplet of input-throughput-output. Den Heijer (2011) used a similar approach.



Conceptual framework by Jackie de Vries (2007)

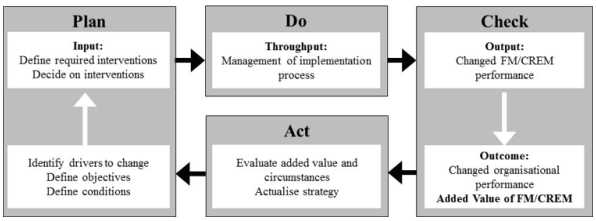
In the new book edited by Per Anker Jensen and Theo van de Voordt a distinction is made between output, defined as a change in CRE performance, and outcome, a change in organisational performance. An improvement in facilities performance is perceived to add value to the organisation if this fits with the organisational objectives. Not every positive output adds value to the organisation. When for instance the energy performance improves from level C to level A whereas the organisation is completely satisfied with level B, the shift from level B to level A does not have added value for the organisation (though it does add value to society!).

Real Estate Norm

The emphasis on a check of the aimed real estate performance in connection to the aimed organisational performance is in line with the distinction between the required performance of real estate (demand) and the actual performance of real estate (supply) in the so-called Real Estate Norm® (REN). The REN is a systemized assessment method that enables objective discussion about the performance of real estate at each phase of the life cycle of existing or new to build real estate, whether leased or owned. It is based on a list of clear and measurable definitions from the perspective of the building user/ occupant. It enables decision-makers to compare their demand profile with the supply profile to ensure that the occupants needs and expectations are continuously being met and to avoid over- or underperformance. The REN was initiated in the early nineties of the last century by real estate broker Zadelhoff Makelaars (now: DTZ Zadelhoff/ Cushman & Wakefield), project management organisation Starke Diekstra (now: Arcadis Netherlands) and real estate consultants Jones Lang Wootton (now: Jones Lang LaSalle). René Stevens and the late Frans Diekstra were the main founding fathers. Hans de Jonge was strongly involved in the development and dissemination of REN as well. Recently René Stevens took the initiative to upgrade the REN in order to harmonise the REN with current standards on usability of buildings.

From added value to value adding management

To support decision-makers in adding value through real estates and to make the insights from research more instrumental and applicable, Hoendervanger, Bergsma, Jensen and Van der Voordt (2016) developed a Value Adding Management process model that follows the well-known Plan-Do-Check-Act cycle. The interventions are linked to resources or "means", whereas the output and outcome refer to the "ends". In the new book by Jensen and Van der Voordt on FM and CREM as Value Drivers, this model is elaborated step-by-step and connected to a number of decision-support tools.



Value Adding Management Model by Jan Gerard Hoendervanger, Feike Bergsma, Theo van der Voordt and Per Anker Jensen (2016)

Need for further research

The ongoing research on Added Value provides more and more evidence on how CREM and FM can add value to organisations and their primary processes. It has opened the black box of input -> throughput -> output -> outcome -> impact/added value by providing a taxonomy of different CRE interventions, exploring the process of aligning facilities to corporate strategies, defining various value parameters, and connecting all kind of CRE and FM interventions to expected or attained outcomes. Knowing the costs and benefits of different interventions can support decision makers to find solutions that provide value for money and fit with the different needs, preferences and conditions of all stakeholders.

However, there is still a lot to do. There is a lack of integrated analyses including all possible benefits and sacrifices (time, money, risks) and which stakeholders benefit most and least of particular interventions. The number of sound pre- and post-change evaluations is rather limited. Not all research builds clearly and cumulatively of existing research. A further harmonisation in definitions and terminology is needed to be able to compare research findings and to enhance the benchmarking of the outcomes of different CRE interventions. Even more important is a further elaboration of clear definitions and operationalisations of different value parameter, to make each value measurable and manageable, to explore which building characteristics and facilities may contribute to it, and how a changing context may influence the most appropriate interventions and (aimed) output and outcomes. Existing tools to measure different value parameters need to be improved as well, for instance tools to measure the impact of CRE on productivity, creativity and innovations.

Concluding remark

"What if" questions are usually like reading tea-leaves. We will never know what would have happened if Hans de Jonge hadn't discussed "his" seven added values of corporate real estate in the mid-nineties. However, it is crystal clear that his views have stimulated many researchers and in particularly his own staff members to further elaborate, rephrase and extend the list of seven values, to work on clear conceptual frameworks, to collect empirical evidence about the impact of different design choices and CRE interventions, and to develop ways to measure and Key Performance Indicators that can be used in practice. All these achievements can be used as input to complex decision-making processes. As many other contributions to this Liber Amicorum have shown as well: the added value of Hans de Jonge is beyond dispute.

Dr. Ir. Theo van der Voordt is emeritus associate professor of Corporate Real Estate Management at the Department of Management in the Building Environment, Faculty of Architecture TU Delft, and senior researcher at the Center for People and Buildings.



Facilities Management and Corporate Real Estate Management as Value Drivers

How to Manage and Measure Adding Value

Edited by Per Anker Jensen and Theo van der Voordt



The new book on "FM and CREM as Value Drivers: how to manage and measure adding value" by Per Anker Jensen and Theo van der Voordt (eds.) discusses six types of interventions and 12 added value parameters and presents state of the art theory, data and Key performance Indicators for each of these parameters.



Our own office is dear to me because it is so durable: it exist over a 100 year and has had many functions, house, post office, pancake restaurant and now office and student living. It is a very nice place to work.

Performance through Real Estate

Jackie de Vries

People and organisations need real estate to deploy their activities. Real estate and the development of real estate is needed to feel and perform better for people as well as for organisations. For their activities and processes, organisations deploy five assets: human resources, technology, information, capital and real estate. They choose the optimal mix of assets in order to attain their objectives. In that way, real estate can influence the performance of organisations, both directly and indirectly. Thereby, the context in which the optimal mix is chosen, changes over time. All variables are continually changing, except real estate. Real estate is static. Determining the effects of a real estate intervention is therefore not possible out of its context.

In my research, a conceptual model including all the relevant variables – such as input, output, performance indicators, context and real estate - was constructed to gather data. An extended literature review in Business Economics, Real Estate Management and Business Administration was explored to find all relevant variables.

By using various methods and qualitative and quantitative data from different sources, it was possible to create a more complete picture, and to compensate the shortcomings of





Real estate can be used to perform better. A Route-planner and Route-map may help to avoid or reduce un-intended and un-wanted effects.

one method with the benefits of others. To increase the usability and the reliability of the outcomes, the results (provisional or otherwise) of the research were discussed with real estate managers and experts from both within and outside the Institutes of Higher Professional Education sector.

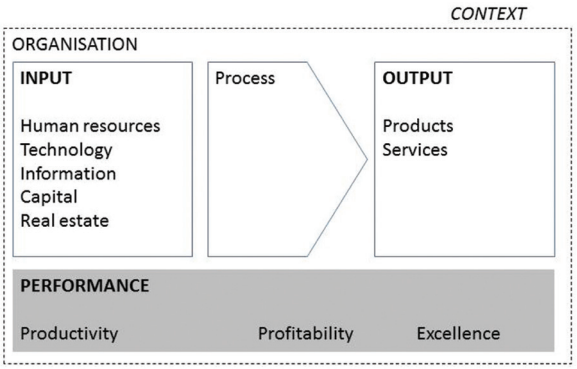
A couple of the conclusions of the research:

1. Real estate influences the performance of organisations;
2. Besides intended performance, there are also un-intended effects;
3. Effects are not visible in the performance indicators used;
4. Effects of interventions depend on context and the intervention itself;
5. Objectives can be measured by using other indicators, like the amount of graduates in relation to real estate costs per student.

So real estate can be used by organisations to perform better. It needs to be designed and managed with great care because of un-intended and un-wanted effects. Therefore, the Route-planner and Route-map are developed: they can be used by decision makers to gain insight in their decisions, intended, un-intended and un-wanted effects and in the relations between all resources organisations have available.

The research description could be a metaphor of my relation with professor Hans de Jonge. At that time in my life I needed to gain insight in all resources a human has to perform. In all choices man can make, in all the intended, un-intended and un-wanted effects of these choices . And at last in all performance indicators, man uses to assesses life and , even the wrong ones.

The discussions with Hans were always positive. He was always interested in the progress and new insights I had gained



as he was always amazed. Amazed at either the findings or amazed that I had found it. I never knew. Hans was for me the coach I needed at that time: he let me do my own research in my own time, plan and context. He never hesitated, never insisted, or his steering was so delicate I did not notice.

For the discipline of corporate real estate and corporate real estate management the knowledge is very useful. The knowledge might not be new, but was arranged in a new synoptic way. In that sense the added value of my research can be discussed in the same way the added value of real estate can. I know it does matters, but it cannot be pinpointed directly and no casual relation can be mentioned.

I started the research with full conviction that design instructions for architects and real estate managers needed to be defined to make buildings perform optimally for organisations. I ended the research with the same conviction that attention to real estate and organisations is the key driver for better performance. Not the buildings themselves. I use the knowledge gained during my research in daily practice. At Aestate, we help all kind of organisations to perform better by redesigning their real estate portfolio and facilities.

The intended effect of the PhD research was realized at April 16th 2017. The unintended effect was that it brought me my dear colleagues and friends Monique Arkesteijn and Alexandra den Heijer and my dear business partner Pity Jongens. Due to the right amount of steering and decision making, there were no un-wanted effects. Thanks, Hans.

Dr. Ir. Jackie de Vries is a former PhD candidate of Hans de Jonge and a former staff member of the Department of Management in the Built Environment. Currently she is a co-director of Aestate BV consultancy





The place that I appreciate most and where I always come back to: walking in the woods with my family and friends. The photo is taken on walking distance from where we now live in Norway. The little Troll wishes us a good tour. But most important for me are the people who are with me on this tour and my place in my family between Jana, Joris, Jella and Juri.

To the moon, and back again

Johan van der Zwart

"We choose to go to the moon, not because it is easy, but because it is hard."

It were these words of John F. Kennedy in 1962 that changed the direction of the rate-race for innovation between two super states by a defining an ambitious new goal.

In a similar way, I have experienced my step from architecture and landscape to real estate and healthcare. The new direction as a PhD student real estate in healthcare was a challenge to develop myself further as a researcher. This was the context in which Hans became my supervisor for my PhD research on Healthcare Real Estate. It was obvious that the transition would be hard, but the belief was there that the direction was the right one. Gradually we explored the breadth and depth of the research area and we discovered how healthcare management, real estate and architecture come together.

One of the results of my PhD research on "Building for a better hospital: value adding management & design of healthcare real estate" (2014): a meta-model that visualises the parallel management of a (healthcare) organisation and its accommodation and four steps of alignment: 1) between stakeholders' objectives and different perspectives on real estate; 2) between adding value by real estate and the organisations' key issues for success; 3) between managing the organisational structure and resources and real estate management; and 4) search for the best possible fit between the design of the building and the primary processes.



Knowledge and understanding is mostly found by choosing another context

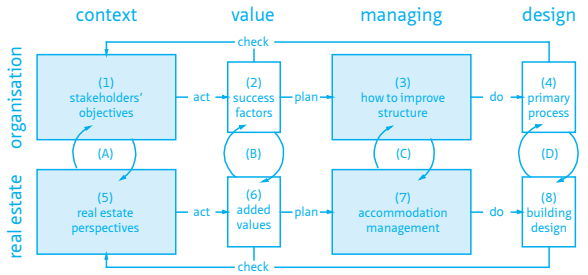
But most of all my PhD research into the accommodation of healthcare organisations and the quest for innovation that followed developed me as a person.

"Okay Houston, we have had a problem here", was the announcement of the Appollo 13 crew, reporting a technical problem with the oxygen supply to the base control on the 14th of April 1970.

But like any expedition to faraway places, there are many who travel with you and help you along the way to reach your destination. During my PhD research, the crew of my capsule consisted of Hans de Jonge as a navigator who tried to prevent me to end up somewhere between Mars and Venus every time, and Theo van der Voordt as the co-pilot who was available at any time for sparring and checking. He was also the flight engineer on board that made sure that the research was methodologically sound and prevented from falling apart during the flight.

"And what is your moon, what is the dream that you hunt for, what is that unattainable goal that you want to achieve in the coming years?" (Claudia de Breij).

Although my journey in Delft ended after my PhD defence, it appeared to be that my dreamt moon had not been reached yet. So I continued to study at the Erasmus University Rotterdam, where I finished this summer my master healthcare management, which I already started during my PhD with the support of Hans and Theo.



Main topics of my PhD thesis

"In the middle of the evening the ant clapped in his hands. It was quiet. "Now you get a present from everyone," he announced. The squirrel did not saw a present. Then he saw that all the animals climbed on each other's shoulders. It was a huge tower of animals. At the top was the ant who held the moon in one hand above his head. "Climb up quickly," cried the bear to the squirrel, who stood there as nailed to the ground. The squirrel started to climb and stepped from one animal to another. It was a long journey. Only in the middle of the night the squirrel reached the ant. "Hi squirrel," said the ant. "Here's the moon." And then the squirrel stepped on the moon." (Toon Tellegen).

One of my personal discoveries during my PhD is that knowledge and understanding is mostly found by choosing another context. So with my finished PhD thesis and Hans as a reference, I moved to Trondheim to work there as a Postdoc Architecture and Health at the NTNU Norwegian University of Science and Technology.

"But after a while, being alone on the moon the squirrel felt lonely and missed his friends, who he could see down there, playing with each other on the beach. But the squirrel did not know how to go back. He sat there whole night, and when the sun was coming up, and the moon was going down in the see, the squirrel jumped into the water and swam back to the coast. On the beach, he met his friend the ant. "How was it on the moon," the ant asked. "Not as I had imagined," answered the squirrel: "it is good to be back." (Toon Tellegen).

Dr. Ir. Johan van der Zwart is a former PhD candidate of Hans de Jonge at the Department of Management in the Built Environment, Faculty of Architecture TU Delft. Currently he is a researcher at NTNU, Trondheim, Norway.

Campus management



Cover of Alexandra den Heijer's dissertation "Managing the university campus" (2011), featuring university buildings and people's activities on campus and in the (knowledge) city.

Managing university campuses – in theory and practice

Alexandra den Heijer

Social relevance: supporting universities in their transition of being real estate owners

Ever since Real Estate Management (REM) became a chair in Delft, the campus has been an interesting object of study, with the TU Delft campus as the ultimate laboratory. The very first "BMVB" curriculum in 1991-1992 already contained a real estate management course with an assignment for students to explore the strategy, use, quality and finances of their own TU Delft campus. But not just students focused on their own workplace from the start, so did researchers. Obviously, it was tempting to test early theories on a built environment that the research team knew so well. At the same time, TU Delft board members and policy makers were more than happy that their own academic staff could support them in exploring strategies for their campus of the future. At that time - around 1995 - universities were going through an important transition: from being user of their buildings to becoming the owners of a huge portfolio of buildings and land. The researchers knew that TU Delft was not the only university that needed support in the process of becoming a real estate owner and corporate real estate manager.



The irony of this subject is that we have always put our knowledge to the test on our own TU Delft campus, also when our own faculty building went up in flames.

Scientific relevance: case studies to test evolving REM theory

From the very beginning REM researchers needed case studies to test their evolving theories on corporate and public real estate management: to test hypotheses and to feed evidence-based concepts. Considering the key partners of the BMVB department in the early nineties – the Government Building Agency ("Rijksgebouwendienst" at that time) and multinational companies

like Philips and ABN Amro – the focus of cases has always been on a combination of (semi-)public and corporate real estate. Incorporating societal and institutional goals in real estate strategies – exceeding business economics and financial goals – always was an important foundation of the REM group, which determined the research agenda and the preferred research partners. The user-oriented, strategic approach of corporate and public real estate management was interesting for many clients from practice, including institutions for higher education.

Conveniently, the need for case studies in REM theory and Dutch universities needing advice and support in REM practice has led to the start of a successful collaboration between REM researchers and (corporate) real estate managers at universities from the mid-nineties that is still active today.

1995-2000: exploring the research field with TU Delft and University of Amsterdam (UvA)

Not only TU Delft but also University of Amsterdam was an early research partner on this subject in the period 1994-2000. With their questions from practice they approached professor Hans de Jonge to support them in their campus management processes. Their questions varied from providing criteria for their portfolio strategies (TU Delft Langetermijn Huisvestingsplan 1995-2010; UvA Masterplan in 1997) to helping them develop rental models, to make the campus users – and deans – more aware of the costs of their facilities ("Huurder-Verhuurder-Model" for TU Delft in 1996). This intensive collaboration also led to pilot cases of innovative academic workplaces (at TU Delft, Civil Engineering in 1999) and studies on new types of laboratories. All the publications that were written in this period were co-productions of authors from theory and practice – see table for examples.

Key publications

The table presents the key publications mentioned before in chronological order:

Year	Authors , Titles or subjects
1995	De Jonge, Sanson, Den Heijer & Poppelier (TU Delft: REM and FMVG), TU Delft campus strategy 1995-2010 (1995), in Dutch Huurder-verhuurder-model (HVM 1996) – report + tool
1997	Hans de Jonge with University of Amsterdam (UvA) UvA long-term campus strategy (1997) , in Dutch
1999	Van der Voordt, University Real Estate: learning and work environment. Assessment of two pilots with new workplace concepts. In Dutch.
1999	Aalders, Fabery de Jonge and Van der Voordt New concepts for university laboratories. In Dutch.
2000	Van der Voordt and De Puy, Evaluation of an academic workplace pilot at the Faculty of Civil Engineering TU Delft. In Dutch.
2000	De Jonge, Den Heijer and De Puy, Analysis of university accommodation plans. In Dutch.
2002	Den Heijer, University campus management (3 reports) - part A: Uncertainty and flexibility, part B: costs and benefits, part C: customer satisfaction. In Dutch
2002	Den Heijer and Van der Schaaf, Benchmarking: a challenge for CRE managers. In Dutch.
2004	Den Heijer and De Vries, Benchmarking of university real estate: management information to support real estate decisions. In Dutch.
2005	Den Heijer , Managing university real estate portfolios, generating management information for performance based portfolio strategies and real estate decisions. ERES conference paper
2005	Den Heijer and De Vries, Analysis of university buildings: benchmark findings from 12 recently built projects. In Dutch.
2007	Den Heijer, University campuses in the Netherlands: an analysis of 14 universities. In Dutch.
2007	Den Heijer, Analysis of university buildings: benchmark findings from 26 recently built projects. In Dutch.
2007	De Vries, dissertation - Performance through real estate. Research into the impact of real estate interventions on the performance of Universities of Applied Sciences. PhD thesis In Dutch. Eburon Academic Publishers
2008	De Vries, Van der Voordt and De Jonge, Impact of real estate interventions on organisational performance. Journal of Corporate Real Estate 10(3), 208-223.
2008-2009	Den Heijer and Cruyen, Ten articles for Facility Management Magazine (FMM) about the process after the fire and creating BK city
2009	Den Heijer, Dalmeijer, Van der Leij, Cruyen, The making of BK city – Bouwkunde één jaar na de brand (200-page book), in Dutch
2009	Den Heijer, The Making of BK City, the ultimate laboratory for a faculty of achitecture" in The Architecture Annual 2008/2009, article, Rotterdam, 010 Publishers, released June, 2009, p. 20-25.

2009 Arkesteijn, Den Heijer, Vande Putte, Volker, "Envisioning the faculty of the future" in Building for Bouwkunde, open to ideas, Delft: TU Delft, May 2009.

2010 Gorgievski, Van der Voordt, Van Herpen and Van Akkeren, After the fire. New ways of working in an academic setting. Facilities, 28(3/4), 206-224.

2010 Den Heijer, Teeuw, Aalbers, "Towards a sustainable campus; Visions for the future of higher education", ERSCP-EMSU 2010 Knowledge collaboration & learning for sustainable innovation – papers, poster and research report for Agentschap NL (and Dutch universities)

2011 Den Heijer, dissertation: Managing the University Campus – Information to support real estate decisions. PhD thesis. Eburon Academic Publishers

2011 Den Heijer, De Vries, De Jonge, "Developing knowledge cities" in Van Geenhuizen, Marina and Peter Nijkamp, Creative knowledge cities, Edward Elgar, February 2012.

2012 Den Heijer and De Jonge, Adding value – linking decisions and performance. Theories, frameworks and tools applied to the university campus. Book chapter in Jensen, Van der Voordt and Coenen (eds), The Added Value of Facilities Management: Concepts, Findings and Perspectives.

2012 Den Heijer and Curvelo Magdaniel, The university campus as a knowledge city: exploring models and strategic choices. International Journal of Knowledge-Based Development, 3(3), 283-304.

2013 Valks, Designing and Testing a Strategy Game. MSc. Thesis TU Delft.

2014 Den Heijer and Tzovlas, The European Campus - Heritage and Challenges.

2015 Arkesteijn, Valks, Binnekamp, Barendse, De Jonge, Designing a Preference-based Accommodation Strategy: a pilot study at Delft University of Technology. Journal of Corporate Real Estate 17 (2)

2015 Bentinck, Pleidooi voor de academische plek "Houd rekening met hoe mensen zijn." TH&MA: tijdschrift voor hoger onderwijs & management, 22(5), 6-9.

2016 Beckers, dissertation: A learning space odyssey: exploring the alignment of learning space in universities of applied sciences with the developments in higher education learning and teaching. PhD thesis University of Twente.

2016 Curvelo Magdaniel, dissertation: Technology campuses and cities, a study on the relation between innovation and the built environment at the urban area level. PhD Thesis TU Delft.

2016 Valks, Arkesteijn, Den Heijer, Vande Putte, Smart campus tools: a study on measuring real use of campus facilities (research project for FM departments of 14 Dutch universities)

2016 Den Heijer, Arkesteijn, De Jong, Campus NL: past, present and future of the Dutch campus (research project for 14 Dutch universities + VSNU)

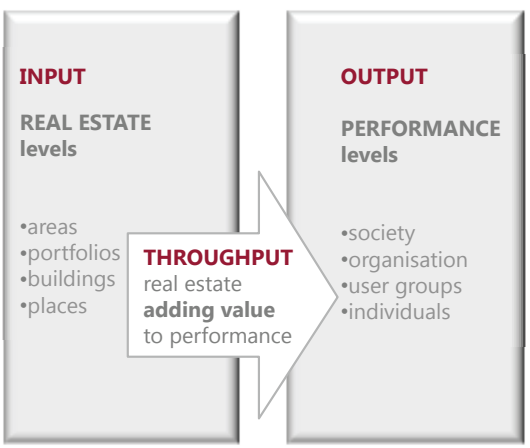
Based on the experience and research findings of these early years the first REM theories emerged: "adding value with corporate/public real estate to institutional goals". It became clear that strategic, financial, functional and technical aspects needed to be merged in every campus decision.

1999-2016: Supporting decision making of all 14 Dutch campus managers

Around the year 2000 the chairman of the association of Dutch campus managers (HOI) – Frans Dekker (UvA) – asked Hans de Jonge's REM research group to conduct the first collective research project on Dutch university campus management. All fourteen publically financed Dutch universities joined forces and set the collective research agenda. At that time the universities had been owners of their campuses – both land and buildings – for five years, since 1995. The question was whether campus managers could learn from each other in the complicated process of managing their campuses. Between 2000 and 2007 numerous research projects were commissioned by the association of Dutch campus managers, leading to the PhD thesis "Managing the University Campus" (Den Heijer, 2011). In each of these research projects the objective has been to provide campus managers with information and tools to support decision-making on the campus, and as such to enable, adding value to the performance of the organisation. Adding value is considered an activity or the sum of activities that (attempt to) influence the effect of real estate on performance: to prevent a negative effect or to realize a positive effect. That effect can be defined as "Added value" and can be measured as a delta (Δ) in its performance, measured by comparing key performance indicators (KPIs) before and after the real estate intervention. This presumed impact of real estate on performance is the basis of real estate management.

In her PhD research project Den Heijer elaborated the DAS Frame which was developed by the REM group (de Jonge et al. 2009, see contribution on CRE alignment) and linked the four management tasks to steps in the campus management process: step 1: assessing the current campus (problem statement), step 2: exploring changing demand (trends / university of the future), step 3: generating future models (for the campus of the future) and step 4: defining projects to transform (investment plans, portfolio strategies).

In each of the management tasks or steps, there are four stakeholder perspectives to consider. Managing corporate real estate (CREM) has gradually changed from monitoring the technical condition of buildings and reducing costs to effectively supporting primary processes and adding value to institutional goals. The information and tools developed in research should enable decision makers to consider many different perspectives: from m2, users and euros to strategic goals.



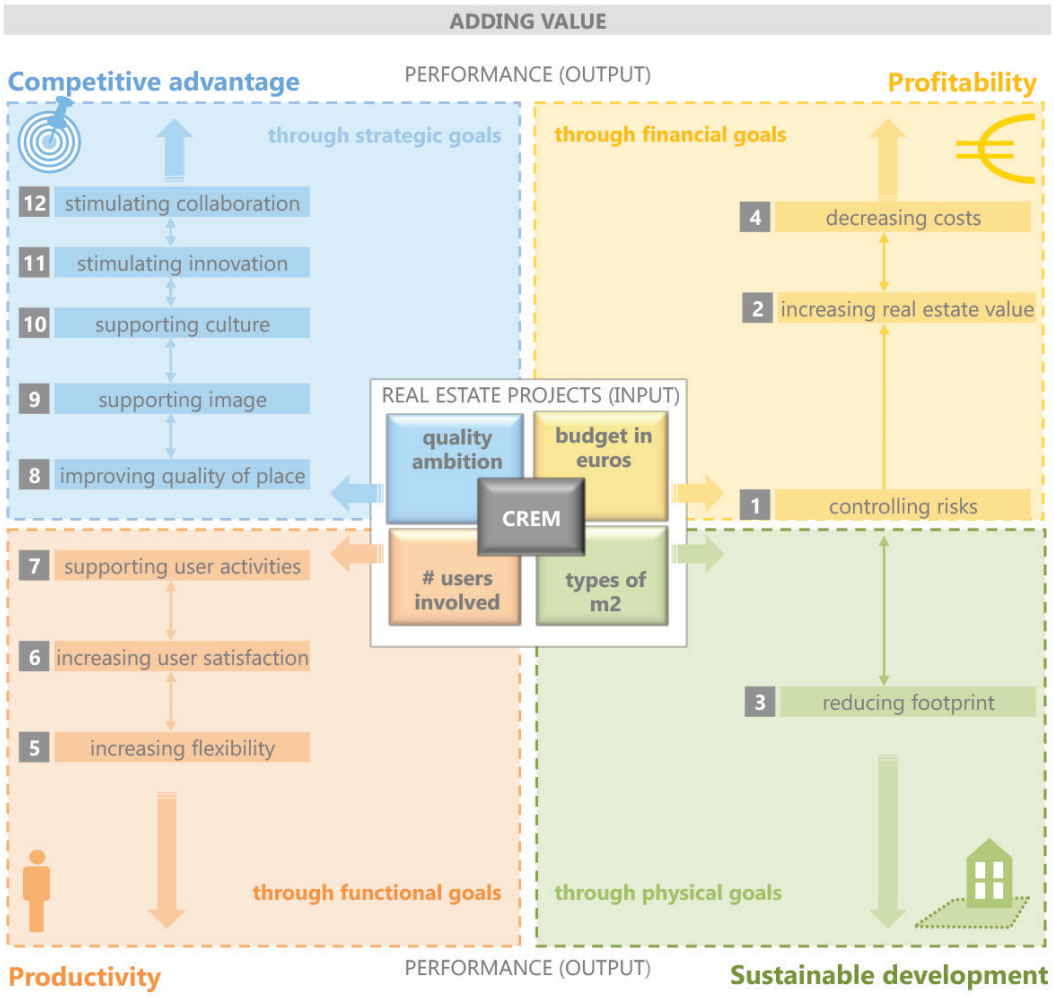
The foundation of real estate management (REM) theory: "real estate adding value to performance"

Campus management theory: four perspectives and performance criteria to consider

Campus research demonstrated that every decision can be related to at least one of the performance criteria of universities (or organisations in general): productivity, profitability, competitive advantage and sustainable development. This was based on the assessment of fourteen campus plans and forty campus projects in the period 2005-2010, by collecting physical, functional, financial and strategic data. This included floor area, function types, investment costs and the aspired goals. The latter was most difficult to measure. However, a list with 'twelve ways of adding value' was available to determine the reasons for a campus project. The relation between the physical, functional, financial and strategic campus data (input), the four performance criteria (output) and the twelve ways of adding value (throughput) is illustrated in the figure on the right. Examples of "adding value" are stimulating innovation, reducing the footprint and increasing flexibility. These ambitions can be recognised in campus strategies like changing the academic workplace or sharing laboratories. Campus managers consider this conceptual framework useful for their decision-making process, which is demonstrated in some of their recent strategic plans or was explicitly stated in interviews or discussions.

Research goal: Information and tools to support campus management

From the very first campus research project that Hans de Jonge acquired in 1995, the goal was to generate knowledge to support a larger group of universities. From 1999 all Dutch universities were actively involved in REM research and questions were formulated on aligning university and campus planning, the use of scenarios, applied forms of flexibility, notions about costs and benefits and creating cost-consciousness about campus matters within the university. Additionally, campus maps and data of floor area in relation to number of students and staff numbers were collected, to give universities an overview of all campuses and a basic comparison of space use. The report, Analysis of University Campus Strategies (De Jonge, Den Heijer and De Puy, 2000) appeared to be a very useful study for all universities, because despite different contexts, it was clear how much they could learn from each other.



Corporate Real Estate Management (CREM) theory – "12 ways of adding value" - derived from campus management research (Den Heijer 2011)

The enthusiasm about the lessons learned just from comparing the campus strategies on a few issues led to the next, more comprehensive project on campus management, in which many of the issues in the first project were elaborated and compared with campus management at universities abroad and public real estate management at the Dutch Government Building Agency. The results were published in three different reports, in a series called Campus Management (Den Heijer, 2002). The first focused on trends and developments that universities were facing at the time and the scenarios for the changing context of Dutch universities. The second report focused on costs and benefits, introducing the need for comparative analysis of campus data for all fourteen Dutch universities. The third report focused on customer satisfaction, identifying different groups of users within the university.

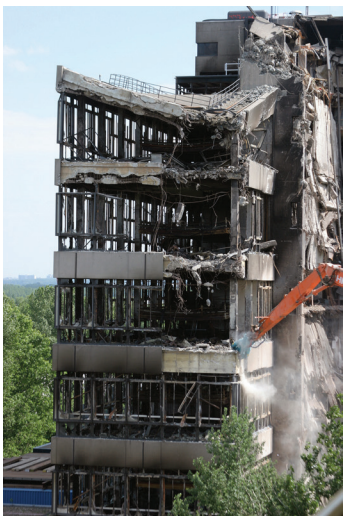
From 2004: Benchmarking the campus as a research theme

After the publication of these reports and the positive response from the universities, this research theme turned into two PhD projects (for Den Heijer and for De Vries who

studied institutions for higher professional education: "hogescholen"). At that time the emphasis on benchmarking increased. Benchmarking on two variables (space use or building costs per square meter) did not provided enough information for campus management. In fact, such a benchmark could be misinterpreted, when only focusing on the lowest building costs and square meters and not the possible consequences for user satisfaction or university goals to support. This resulted in the report Benchmarking the university campus (Den Heijer & De Vries, 2004) where theories on benchmarking and practice at other organisations were studied. A questionnaire filled out by all Dutch universities demonstrated that definitions needed to be accentuated and that information about users, satisfaction and goals to support was lacking. In Benchmarking university campus projects (Den Heijer and de Vries, 2005; Den Heijer, 2007) data was collected on new buildings, registering building costs in relation to project types, supported goals and numbers of users to accommodate in order to provide universities with references. Both reports resulted in a database of 39 buildings, described by 'why' (goals), 'for whom' (users), 'what' (m2), and 'for how much' (euros). In Benchmarking the Dutch university campus (Den Heijer, 2007) data was collected on the level of the whole campus for each university, in a similar format to the campus projects, describing university and campus management goals, resources spent, students and staff members to accommodate and floor area on many different issues: types of space, land property, building age, technical condition etc.

In 2008 the fire of the faculty building

When the draft dissertation "Managing the university campus" was about to be sent to the promoters, a fire destroyed the Architecture faculty building. The immediate assignment was to put the theories and lessons for the campus of the future to the test. Despite the loss of the iconic Berlageweg building and the research material of many, this dramatic event and the BK city project was a milestone in BK history. The multidisciplinary teamwork and determination to create a better faculty building than before, resulted in "renewed old building" BK city that has been an inspiration for many other universities ever since. Publications about this process delayed the dissertation with a few years, but added many valuable lessons to the content. At the same time De Jonge, Arkesteijn, Vande Putte and Volker guided the design competition "Building for Bouwkunde" (2008-2009) with more campus lessons.



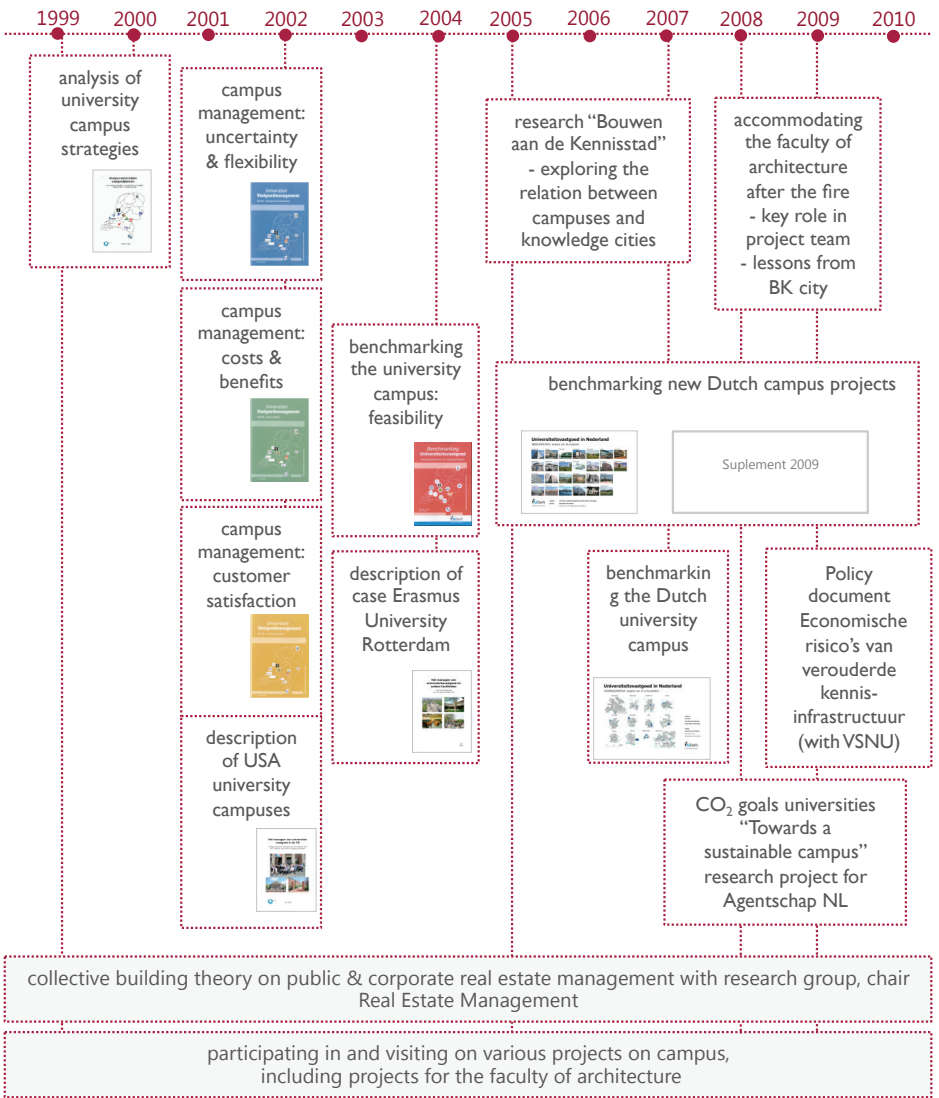
Berlageweg building after the fire in May 2008



New Architecture building BK city as a test case for the campus of the future

2011: the publication of the dissertation "Managing the university campus"

In 2011 these studies and lessons from practice resulted in the dissertation Managing the University Campus (Den Heijer, 2011). This book has been an academic bestseller: in the last five years more than 1500 copies have been distributed to more than 40 countries. Consequently not only the number of visits to BK city increased rapidly, but also the number of request to give lectures abroad. The success demonstrated that the campus management theories were practical enough to support designers and decision makers on campus.



Overview of campus studies by Den Heijer in the period 2000-2010, which were merged in her dissertation "Managing the university campus" (Den Heijer 2011)

Ongoing research

Since then, new research projects were started and a campus research team was formed. The projects are all related to university campuses, but with other clients and subject areas.

Theme from 2006: The campus and the (knowledge) city

Since 2006 campus research has been expanding to knowledge cities, leading to seminars and publications. The municipality of Delft has often been involved or connected to research projects, like the study that led to the publication "Positioning Delft in the context of the knowledge economy, project TIC Delft" which was also a spin-off of MSc student Flavia Curvelo Magdaniel's graduate thesis. Five years later – in 2016 – her PhD thesis "Technology campuses and cities" (Curvelo Magdaniel, 2016) examines the development of technology campuses with the aim to gain and provide understanding about the role of the built environment in stimulating innovation. By developing more knowledge on the subject, it can lead to more efficient and effective use of the resources required to develop these built environments. The research includes an exploratory study of 39 technology campuses and two explanatory case studies of HCTE in the Brainport-Eindhoven region and the MIT campus in the Boston-Cambridge Area.

Theme from 2013: exploring the European campus

In the European Campus project, campus-level data is collected for European universities, similar to the benchmark previously done for Dutch universities (Den Heijer and Tzovlas, 2014). The data regard the state of the campus in all 28 EU member states, (number of) students and employees, funding, locations, iconic buildings and (number and state of) m2 floor area. Part of this European campus research is the development of a decision-support tool: "a campus stress test". This stress test contains a set of key performance indicators (KPIs) to assess current European campuses and new campus plans (examples of indicators: space utilization in users/m2, ecological footprint, inter-university collaboration, total costs of ownership in euros/m2, % shared university-city functions, effective use of European heritage buildings), using European best practices as references and benchmarks.

Theme from 2014: Preference-based Accommodation Strategy

In the Preference-based Accommodation Strategy design project, a design method for real estate portfolios has been developed and tested at TU Delft (Arkesteijn et al and Arkesteijn, PhD work in progress 2015). The pilot study for the university's large lecture halls was necessary because the current supply of lecture halls did not meet present-day requirements with regard to facilities and capacity while occupancy and utilization rates of lecture halls suggest that an increase in efficiency is possible. The pilot study for food facilities set out to solve the problems of students and staff who claim that there is insufficient capacity and quality in the food facilities. In both cases stakeholders were able to perform the PAS procedure, by using a mathematical model of the PAS procedure. The PAS is generic in nature and can be used for a wide range of real estate portfolios.



Members of the Campus team with other colleagues of the MBE department

Theme from 2011: a university as a place to be

The research project 'A University as a place to be' by Salomé Bentinck explores physical factors that make university buildings and campuses attractive in the eyes of employees and students. The research focuses in particular on physical conditions like spatial programme, design and facility policy that support the occurrence of chance encounters, place attachment and identity. This topic is all the more important since physical presence as such is not in any case necessary as there are so many ways to communicate via ICT. This research is conducted by using data, collected at a number of departments of two Amsterdam Higher Education Institutions, before and after relocation. The role of physical characteristics of the building and environment, relevant for users and contributing to social interaction, are examined.

Theme from 1999: the changing academic workplace

In an earlier project in the late nineties, a study was conducted into the appraisal of new workplaces as well, at the Faculty of Civil Engineering (Van der Voordt, 1999; Van der Voordt and De Puy, 2000). By a reduction of individual room spaces, extra space was created for meeting and collaboration and to exhibit research findings and other products of the research group. This was one of the first experiments with new ways of working at the Delft University of Technology. At that time, activity-based working concepts were one step too far. Later on, many faculties adopted new ways of working accommodated by a variety of shared activity-based workplaces, including the Faculty of Architecture (Gorgievski et al., 2010; Van Akkeren et al., 2010). More recently, Geert Dewulf and Theo van der Voordt supervised Ronald Beckers, who wrote a PhD study on the impact of new ways of learning and teaching on accommodating Universities of Applied Sciences (Beckers, 2016). This thesis discusses both management approaches to align real estate strategies to organisational strategies and the design, experience and use of study places.

From 1999: new concepts for laboratories

Due to various trends in academic research – a growth in international and interdisciplinary collaboration, sharing of very expensive research facilities, replacement of lab research by computer modelling – in the late nineties another study was conducted into university laboratories (Aalders et al., 1999). This study resulted in an overview of trends in academic research and spatial implications, a typology of labs ranked from low till maximum sharing of spaces and facilities, a presentation of best practices, and a questionnaire to assess the experience and use of (university) labs. This study has also been used as input to a special version of the Work Environment Diagnosis Tool (WODI), WODI labs. This questionnaire has been developed in 2014 by the Center for People and Buildings to assess employee satisfaction with lab environments.

From 2008: exploring the sustainable campus

In 2008 Agentschap NL asked TU Delft to explore scenarios and strategies for a more sustainable campus. That same year Dutch higher education institutions signed an agreement to reduce the carbon footprint with 30% in the year 2020. Together with energy officers, sustainability professionals and academic colleagues from the chair Smart Architecture (Environmental Technology) and Sustainable Housing Transformations the REM group led this research project that resulted in two papers, a (Dutch) report and an online tool. Since then, this theme has increasingly been integrated in campus management practice and has drawn international attention. Since 2013 the Sustainable campuses in Saudi Arabia research project focuses on campus management in Saudi Arabia (Alghamdi, work in progress). The research covers the recent campus development of many universities in the country, with a strong focus on sustainability. This PhD research project concentrates on the environmental sustainability in university campuses in Saudi Arabia. The main aims are to (a) learn more about environmental sustainability in the first phase of college buildings and university campuses, (b) develop sustainable planning principles as a guidance to aid improvement of these facilities and (c) ultimately help make new college buildings, to a large extent, future-proof.

From 2015: reassessed the Dutch campus– Campus NL describes past, present and future

The latest research projects mark a shift back towards the association of Dutch campus managers. In the Campus NL research project the information generated in previous research is updated (Den Heijer et al., work in progress). On a campus-level, data is collected for each university and compared with the data from 2007. On a project-level, data is

collected on recent projects and added to the existing project database. Trends and developments are studied that can impact the campus.

From 2015: Smart Campus Tools - making better use of the campus

In the Smart tools on campus research project data is collected for each university on the tools that they have to improve the occupancy and frequency rates of their campuses (Valks et al, 2016 fortcoming). Examples of these tools are real-time monitoring of the occupancy (number of occupants, frequency of being occupied) of classrooms based on Wi-Fi connections and real-time monitoring of the availability of computers on campus, to help students find a study place. Additionally, interviews at a number of other organisations are conducted to see what can be learned from examples outside of the university context.

Concluding remarks

Over the past twenty years, the department of Management and the Built Environment has made a significant contribution to building a body of knowledge on the management of the campuses of universities. The research has contributed to existing theories on real estate management and built new theory. At the same time, the objective of research has always been to provide tools and information for use in practice. As such, researching campus management has been at the core of the department's research on corporate real estate management, exceeding financial and business economics goals and incorporating societal and institutional goals in the decision-making process.

The first phase of the campus research, up to the publication of dissertation "Managing the University Campus", can be characterized as building standards for campus management: by describing the position of campus management (in real estate management theory), its purpose (adding value), the management process of adding value (matching supply and demand, now and in the future) and the available tools per step of the management process (campus and project benchmarks, scenarios, etc.). The current and future research projects are aimed both at further research based on these standards – applied to the European campus and Campus NL - and further research into more specific aspects of campus management. This can be related to a specific type of real estate (learning spaces, technology campuses or the academic workplace), to a specific stakeholder perspective (sustainability) or to the development of more tools for specific parts of the management process (smart tools on campus or new methods for decision-making). Knowledge and tools will be developed in close collaboration with and for universities.

Twenty years after Hans de Jonge acquired the first research project on this subject, the academics and the professionals in this field have collectively gone through a learning process. The campus has been a living lab for researchers and campus managers. The increasingly larger research team – with links to design, technology, economics and psychology – hopes to continue this fruitful and inspiring partnership to further professionalise campus management and contribute to inspiring, functional and resource-efficient campuses.

Dr. Ir. Alexandra den Heijer is associate professor of Real Estate Management at the Department of Management in the Built Environment, Faculty of Architecture TU Delft.

Acknowledgements

For the contribution the author thanks the members of the campus research team and the editors for their valuable additions to the content. A special thank you to researcher Bart Valks who is responsible for the foundation of this contribution.

References

Many publications that are mentioned are available online and can be found on Den Heijer's blog (page PUBLICATIONS), which also contains more background information about campus research project:
http://managingtheuniversitycampus.wordpress.com



Aerial photo of the TU Delft campus – a combination of academic heritage, iconic buildings from the 1960s and recent additions, which represents the average university portfolio that needs to be managed



I took this photo in September of 2014 while visiting Roosevelt Island in New York, one of the development locations I used to document my research. Hans told me this research trip would 'boost' my research. He was completely right. I enjoyed every bit of this research trip! This place is special not only because it was part of my 'research hunt', but also because to my surprise I had the opportunity to enjoy an amazing architectural project designed by Louis Kahn in 1975 and completed in 2012: the Franklin D. Roosevelt Four Freedoms Park.
I loved Khan's design with the impressive use of stone combined with the profile of the most amazing city I've ever visited in the background. There another architect jewel!

No passion, no emotions, no gain!

Flavia Curvelo Magdaniel

When I first met Hans, I was a student of the master track in Real Estate & Housing at TU Delft. Back in 2009, I remember being very impressed by his introductory lecture of the course Real Estate Management. I came to the Netherlands and TU Delft pursuing a change in my career path and after the first semester in the MSc, I was still not convinced this was the right decision. The passion Hans shared with the students about his profession gave me the kind of confidence you gain through inspiration. His lecture was, as Dutch people say, '*een duwtje in de rug*.'

Back then, as a Masters student, I never crossed a word with Hans. I talked to Hans for the first time after Alexandra, my master thesis mentor and Hans' wife, introduced us while I was working for her as a research assistant. She was convinced Hans would be a suitable supervisor for the PhD research I pursued after my master's studies graduation. Alexandra was right. Hans not only shared a complementary view on my topic of interest (campus development) but also inspired me to pursue a meaningful career as a researcher in his field (corporate real estate).



Hans' passion is transmitted in his voice, hands, gesture, laughs, and steps. I see a bunch of students and colleagues inspired by him. What it can be called 'the Hans' school of real estate.'

Under his guidance, he shared his knowledge about the practice of real estate and made me think about the many problems we can solve doing the kind of research we were up to.

From his experience, I have learned how real estate decisions are made and how the consequences of such decisions affect the way we live and work. As Hans would say, there are a lot of 'emotions' influencing real estate decision-making and we have

to prepare to deal with it in the 'real' estate world. Ultimately, when Hans teaches the world of real estate, he is teaching you about life.

I had the honour to be guided by a candid and charming man who is open to speaking about people and emotions and not just business and research. He could sense those moments of the PhD process in which I only needed to follow my passion and instinct. I am grateful for enjoying both, Hans' intellectual and emotional support. During the PhD process Hans encouraged me to be independent and explore my research path. He was also there, to lighten the way when he sensed I was getting lost. This way I gained confidence as a researcher. Hans has implicitly shown to me that following my passion is the path to gain!

Six years later, this time as a teacher of the very same course I listened to Hans for the first time, I recognise the same kind of confidence in the faces of the students who have the privilege to listen to his lectures. It makes me wonder how much I enjoyed listening to Hans once per month for almost five years during my PhD development. I do remember the engaging discussions and brainstorming sessions we had about our research. I remember the laugh and the fun as well.

I feel privileged of having him as my mentor during such a critical period in my career and life. Seeing him teaching again, only confirms that his passion has been an essential fuel for this educational machine we called BK-city. It is transmitted in his voice, hands, gesture, laughs, and steps. I see a bunch of students and even colleagues inspired by him. What it can be called 'the Hans' school of real estate.'

The flow of passion Hans has passed to me has been the most valuable gain during the PhD process. I am glad I had the chance to write these words because one paragraph in the acknowledgements of my dissertation would not have been enough to thank him and to tell him how much he has influenced my development as a researcher.

Gracias totales Hans!

Dr. ir. Flavia Curvelo Magdaniel is a former PhD candidate supervised by Hans during the period 2011 -2016. Her PhD dissertation is titled 'Technology Campuses and Cities. A study on the relation between innovation and the built environment at the urban area level'. Currently, she is a postdoctoral researcher at the Department of Management in the Built Environment, Faculty of Architecture TU Delft



Hans and Alexandra meeting my mom in The Hague, 2016



Flavia's defence ceremony in Delft, 8 September 2016



First official meeting: A talk about public university campuses in Saudi Arabia over a cup of 'Arabic' coffee and some Saudi 'dadels' (By Alexandra den Heijer)

From his last international PhD candidate

Naif Alghamdi

My PhD research project started officially on Monday, January, 6th, 2014. At the end of my first week, I met Hans for the first time on Friday, January, 10th, 2014 in the corridor of the Department. When meeting someone new for the first time, the first impression is not something to easily forget. Although I felt a bit nervous, it was a moment to remember especially after the handshake. In Saudi Arabia, at least in the southern part where I come from, greeting with a 'hard' handshake means not only you are welcome, but also indicates a strong relationship is either already established or yet to be established. I felt that I am in safe hands. You know that the firm handshake communicates important information about yourself and that is one of your personal characters that I do really admire (so keep going, but please be careful not to crush the other person's hand).

After the unofficial meeting in the corridor, our next meeting was in room 01.West.640 on Friday, March, 14th, 2014 to discuss the PhD project. During the meeting, I introduced myself properly, my country, my ideas about the research and some facts and figures about Saudi public university campuses. In that meeting, Hans's insightful and constructive comments helped me to be more focused in examining the research problem. Out of that meeting, I was able to outline key issues to address in my research. This has tremendously transformed the research to another level; a level that would not see the light without Hans's input. What I experienced in this first meeting was that, apart from showing a huge interest in the Arabic coffee and the dates, the number of questions you asked not only during the first meeting, but also during our regular monthly meetings shows that you are



In Saudi Arabia a 'hard' handshake means not only you are welcome, but also indicates a strong relationship is either already established or yet to be established. I felt that I am in safe hands.'

committed to this 4-year research project. These questions are important because they leave me wondering, thinking, and sometimes feeling lost (so keep going, but please be patient if you want proper answers for your difficult questions).

The picture above portrays another example of your commitment to my research. The image displayed on the screen shows one of the new university campuses being constructed in Saudi Arabia. You stood up and walked to the screen to be clearer about many issues. That is typical of you; wanting to understand every bit of the research whether on screen or on paper. I deeply appreciate the attention you give to my research. Your comments on every single sentence, paragraph and indeed my entire work are most gratefully received (so keep going, but please slow down when writing down your comments).

The start was rather challenging since the initial focus was not clear. The scope was too wide and the information was wide-ranging. With your support and guidance, as well as Alexandra den Heijer's, I have been able to narrow down the research. It is your generous assistance that makes my life much easier while I am struggling to find the right way in my research. I am continuously encouraged by your kind words: at the beginning of our meetings, "help us to help you"; and at the end, "Naif, promise me to reach me whenever you need help by phone, text message, or email". I usually say to myself, how lucky am I to have such a person to supervise me. But maybe my cultural background presents a challenge for me; the feeling that I would be interrupting your busy agenda (so keep going, but please give me more time to reach you).

In your 25 years at Delft University of Technology, you have supervised almost 30 PhD students and I am probably your last international PhD student. As one of my role models, I am determined to emulate your successful career. You are not just a key contributor to my research, but also an inspiration to me. My ambition, therefore, is to learn as much as I can from your very long experience both in academia and practice. Already, I have learnt quite a lot from you in these three years and from the people around me to whom I have much respect and admiration. I am very pleased to do my PhD research under your supervision and let me take this opportunity to express my gratitude to you, who have been absolutely nothing but very supportive and thoughtful (so keep going, but please do not stop the help and support after your retirement, at least not before I finish my PhD).

Naif Alghamdi is a PhD candidate of Hans de Jonge at the Department of Management in the Built Environment, Faculty of Architecture TU Delft



Attending one of Hans' lectures (Wednesday, April, 30, 2014)



Hans' lecture for the Real Estate Management course (November, 2015)



The Blue Ridge Mountains, a place where I've spent many holidays. It is important to me for so many reasons – the many memories there with my parents and brothers, the kind people, because every day has a different but still spectacular view and because it is the ideal place for me to clear my head.

Supervision of (hopefully) a prospective PhD candidate

Bart Valks

Ever since graduating in 2013 my ambition has been to become a PhD candidate – first, whilst working at the real estate department of TU Delft and for the past year as a researcher. It seems that this will happen starting October 1st – which is unfortunately also the first day without Hans de Jonge as our professor. Although this is a slight disappointment for me, I feel that Hans has already supervised me a little between 2013 and now. This is a story about a few of the meetings I had with Hans and what they've meant to me.

Meeting #1: Instincts

A few months after my graduation I had started working at the real estate department of TU Delft – a job I still greatly enjoy, but where I had also made it known quickly that I wanted to pursue work in academia. Since then, I had been writing a paper with Monique Arkesteijn and we had been working part-time on a proposal for further research. This proposal was to be submitted to STW, a foundation for engineering sciences that awards grants. After many hours of work Monique arranged a meeting with Hans and Alexandra den Heijer to discuss the research proposal, somewhere in April 2015. This was my second meeting ever with Hans, the first one being during my graduation project. Prior to the meeting I was confident about what we had put on paper. We had discussed tirelessly about the content and had recently done a good addition by adding the topic of Geomatics to our proposal: this combined our work on user preferences with their work on measuring where users are and how they move inside buildings ('smart tools'). I was less confident about what was not on paper – three questions kept recurring in my head:



A confidence boost: Hans encouraged me to voice my personal opinion in the panel discussion a few times, which led to me giving answers to questions where normally I might have let others speak.

1. To what extent is our proposal competitive with those of other Engineering Sciences?
2. To what extent does the proposed solution already exist?
3. What do we – as REM section – contribute to this proposal: are the innovative aspects of our proposal not too much at the heart of Geomatics and Operations Research?

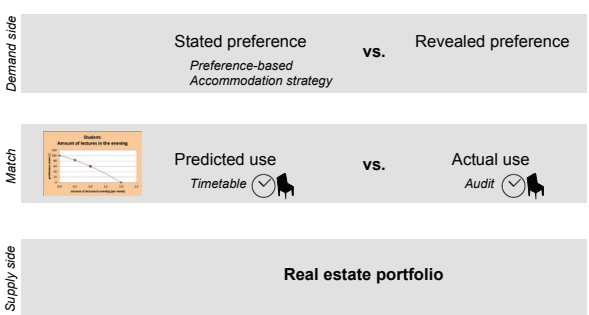
As I walked into the meeting room, I could see Hans' printed version of our proposal lying half-open and full of comments. Not a good sign, as it turned out. In the first ten minutes of the meeting Hans had already covered each of the three questions, affirming my doubts in each of them. He then turned to me and said 'but these are just comments of an old man – what are your thoughts?' I cannot even recall my own reaction, just the feeling of being shell-shocked. Lesson learned: listen to your own instincts.

Meeting #2: Perspective

Shortly after the meeting with Hans an amended version of our proposal found success: with the help of Alexandra the Dutch universities agreed to fund a one-year research project called 'Smart tools on campus.' Within a few months it seemed as if my ambition of doing a PhD project went from heading nowhere to setting huge steps. After a few months the other PhD candidates organised a PhD meeting, with presentations and a discussion afterwards about the position of current PhDs and life after doing the PhD. Hans' input in the discussion not only showed his passion for our research as MBE, but also gave a lot of good pointers which have helped me in the thinking process during the past few months about the next few stages of my career.

Meeting #3: Confidence boost

About six months ago I was approached by Peter Barendse, one of the supervisors in my graduation project, to be a speaker at his farewell symposium. My presentation would be both about my graduation project and current research project. At the start of the symposium, I was quite stressed – not because of the presentation I was about to give but because of my research project, which was heading towards the final presentation. A lot of things would be determined, there and then. When the symposium started something happened - Hans Wamelink introduced me incorrectly as a PhD candidate. Hans, sitting in front of me, turned around, gave me two thumbs up and said "good, that has been taken care of." After the presentation the speakers (myself included) participated in a panel discussion, which Hans led. This was quite something, standing between three people far more experienced in this field than myself and being far less prepared than I would have liked. During the discussion Hans encouraged me to voice my personal opinion a few times, which led to me giving answers to questions where normally I might have let others speak. Finally, whilst having drinks Hans stated that he was very confident that we would do a good job in the smart tools project. For me, this day made a great contribution in my state of mind when working towards the deadline. And indeed, we did do quite a good job!



Work-in-progress: Actual preference & stated preference <-> supply maybe the topic of research in my PhD.

Bart Valks is a researcher of Real Estate Management at the Department of Management in the Built Environment, Faculty of Architecture and the BUilt Environment, Delft University of Technology.

Design and management of activity-based workplaces



Personal desk of Hans de Jonge at his home: no paperless office, no clean desk policy (just like the workplace of Hans' colleague Hugo Priemus)

Design and management of activity-based workplaces

Theo van der Voordt

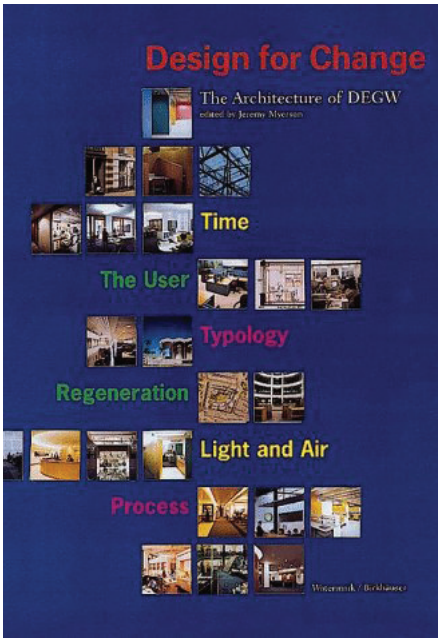
As long as I have known Hans de Jonge he has always been busy with meeting staff members, students and visitors, giving lectures, chairing discussions and symposia, and sharing his views with many people, in Delft, the Netherlands, and worldwide. Due to his dynamic existence he is a person par excellence to drop a fixed, personal desk and to move along non-assigned desks, working anytime, anyhow, at any place that is appropriate at that moment. However, when Hans has a long day with appointments in Delft, he usually sits in the same room, "his" room. When he is not there, the room is free to be used by anybody who needs it. As such we may call Hans a hybrid flex-worker.

Inspiration from abroad

New offices, also called activity-based workplaces, non-territorial offices or flex-offices, provide people with a variety of different workspaces that fit with different activities. Hans' interest into activity-based workplaces goes back to the early nineties of the past century. At that time Hans made a study trip to Cornell University in Ithaca and Harvard and MIT in Boston, all in the USA. He got familiar with the work of Franklin Becker and William (Bill) Sims and their International Facilities Management Program (IFMP). This program started in 1989 and was supported by a consortium of private and public sector organizations in the United States, United Kingdom, Europe and Japan. It was later renamed as the International Workplace Studies Program (IWSP). Another leading person regarding new offices is Frank Duffy, together with John Worthington one of the cofounders of the architectural firm DEGW (for an extensive presentation of the DEGW work in the past 40 years see the contribution of John Worthington to this Liber Amicorum). The picture below shows one of their leading publications on Design for Change.



Many people are satisfied with shared use of activity-based workplaces, but complains about a lack of privacy, insufficient opportunities to concentrate, and lack of storage space come to the fore as well.



Design for Change: Architecture of DEGW

Duffy is one of the early pioneers who plead for replacing traditional cellular offices with personal fixed desks – often with larger places for those higher ranked in the organisational hierarchy - by different types of activity-based workplaces. Partly because the variety of office activities cannot be accommodated effectively by 'one size fits all', and partly to use expensive workplaces more efficiently.

These international contacts inspired Hans to start a research program on New Ways of Working and innovative office concepts in Delft as well. In the mid-nineties a long lasting relationship started with both the ABN AMRO Bank (Loes Diemel) and the Government Building Agency (Wim Pullen) to document and evaluate new offices such as the DynamischKantoor Haarlem, a hotel office and various satellite offices of the GBA, and a number of innovative office environments in the ABN AMRO Bank in Amsterdam and Breda (Flexido). Geert Dewulf and Paul Vos were the pioneering researchers at that time. They were quite soon joined by Theo van der Voordt and graduation students like Michel Beunder, Frederik van Steenbergen, Richard Lohman, Anouk van den Brink and many more. In 1999 the Delft group presented a small booklet called *The Office, The Office, and nothing but the Office* at a CoreNet conference in Delft. This publication tried to shed more clarity in the many names of innovative office design and presented a typology of new workplaces.



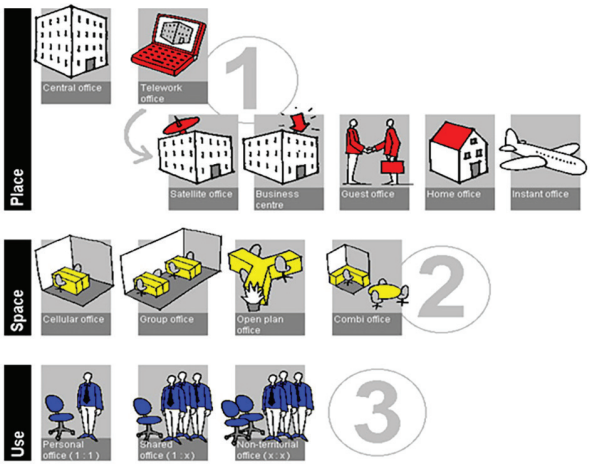
Frank (Francis) Duffy is a British architect and cofounder of DEGW. He is particularly noted for his work on the future of the office and the flexible use of office space.

Duffy was president of the Royal Institute of British Architects (RIBA) from 1993-1995. In 2008 he received the British Council of Offices (BCO) President's Award for Lifetime Achievement. In 2008 he was named by *Facilities Magazine* as one of 25 Pioneers of Facilities Management in the UK.

In the 1960s, Duffy introduced the landscape office concept (*Bürolandschaft*) into the English-speaking world. His doctoral research at Princeton was focused on mapping the relationship between organisational structures and office layouts. In the 1970s, he was one of the pioneers who introduced North American practice in Space Planning and Facility Management into Europe. He coined the concept of "Shell, Services, Scenery and Sets" i.e. the analysis of buildings and building components in terms of layers of longevity in order to facilitate the accommodation of technological and organisational change. This concept was later elaborated by Stewart Brand in his book *How Buildings Learn: What Happens After They're Built* (Brand, 1994).

In the 1980s Duffy and his DEGW colleagues initiated the ORBIT (Office Research: Buildings and Information Technology) project on the impact of advances in Information Technology on office design. This research had a substantial impact on British office projects such as Broadgate and Stockley Park and on office design worldwide. More recently Duffy's interests have focused on the challenges that increasing reliance on virtual communications is bringing into urban design – asking the question: "In an increasingly virtual world what arguments can architects and urbanists use to justify spaces and places?"

Source: Wikipedia



Typology of new workplaces regarding place, space and use (Vos et al., 1998)

CENTER FOR PEOPLE AND BUILDINGS

Center for People and Buildings

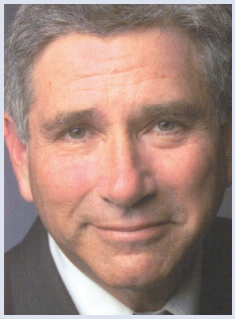
In 2001 the triplet TU Delft – ABN AMRO – GBA joined forces to established a new knowledge centre, called the Center for People and Buildings (CfPB), to connect research and practice by developing and sharing knowledge about work environments (see also the contribution by Wim Pullen in this Liber Amicorum and the CfPB website www.cfpb.nl). One of the CfPB's first activities was to organise a conference on "New work environments: better performance?." In 2003 the CfPB published a state of the art book about *Costs and benefits of innovative workplace design* with a focus on its impact on employee satisfaction, (perceived) productivity support, cost savings and investment costs. Since then CfPB has published numerous reports and papers on Pre- and Post-Occupancy Evaluations from a huge number of activity-based work environments. Furthermore, many tools have been developed to support organisations in reorganising their work environment, such as:

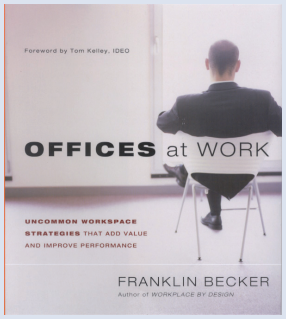
- The Work Environment Diagnosis tool WODI (WODI Classic: an extensive questionnaire; WODI-Light; WODI-labs): a tool to collect data on employee satisfaction, perceived productivity support, and prioritised aspects of the work environment;
- The Satisfaction Index: a benchmark tool to compare percentages of satisfied employees on 19 aspects of the work environment;
- The Space Utilisation Monitor (SUM): a tool to measure occupancy ratios;
- PACT: software to define the number of required workplaces per type of place;
- The Accommodation Choice Model: a step-by-step plan to guide organisations through a (re-)design process of their work environment from the first initiative to the building-in-use;
- The Workplace Game: a game-like tool to raise awareness and understanding of innovative workplace design, to support a positive attitude, to cope with resistance to change, and to develop behavioural rules.
- The Workplace Guide: ingredients for contemporary workplaces, meeting spaces and facilities, with descriptions of 30 different places, each illustrated with 3 photographs.

The table below presents a selection of books and papers that helped to build a body of knowledge on the drivers to change work environments and experience and use of activity-based workplaces. Due to limited space the table focuses on the work by Franklin Becker, Frank Duffy and other DEGW people, and contributions from Delft (*Italics*).

Key publications in activity-based work environments

1983 | Duffy et al., Orbit Study: Information Technology and Office Design
1990 | Becker, The Total Workplace: FM and Elastic Organisations.
1992 | Becker et al., Evolving workplace strategies. Investigations into the ecology of new ways of working.
1992 | Duff, The Changing Workplace.
1993 | Becker, The Ecology of New Ways of Working: Non-Territorial Offices
1993 | Duffy & Lang, The Responsible Workplace: The Redesign of Work and Offices.
1994 | Becker et al., Implementing Innovative Workplaces.
1995 | Becker & Steele, Workplace by Design. Mapping the High-Performance Workscape
1995 | Becker et al., The Ecology of Collaborative Work.
1995 | Becker & Joroff, Reinventing the Workplace.
1996 | Duffy & Powell, The New Office.
1996 | Becker et al., Work Smart: New Strategies for Gaining Competitive Advantage.
1997 | DEGW, Design for Change: Architecture of DEGW.
1997 | Worthington, Reinventing the Workplace. With a 2nd edition in 2005.
1997 | *Beunder & Bakker*, Innnovative Working Practices in Office Buildings.In Dutch.
1997 | *Vos & Dewulf*, Do People Work Better in an Innovative Office? In Dutch.
1998 | *Dewulf & Vos*, (Im)possibilities of Innovative Offices.In Dutch.
1998 | *Dewulf & Vos*, Points of Attention in Introducing Innovative Workplace Design ('Dansen op het ritme van veranderingen', in Dutch).
1998 | Duffy et al., New Environments for Working.
1998 | Sims, Joroff & Becker, Teamspace Strategies. Creating and Managing Environments to Support High Performance
1999 | Horgen et al., Excellence by Design: Transforming Workplaces and Work Practice.
1999 | *Vos et al.*, The Office, The Whole Office and Nothing But The Office: a Framework of Workplace Concepts.
1999 | *Vos & Dewulf*, Searching for Data: A Method to Evaluate the Effects of Working in an Innovative Office.
2000 | *Van Meel*, The European Office. Office Design and National Context.
1999 | *Van der Voordt & Vos*, Evaluation of Office Innovation. Model and Methods.Original title? In Dutch.
2001 | Becker & Sims, Offices That Work. Balancing Communication, Flexibility and Cost.
2001 | *Vos & Van der Voordt*, Tomorrow's Offices through Today's Eyes. Effects of Office Innovation in the Working Environment.
2001| *Van der Voordt & Beunder,* The Red Thread. Lessons from Innovative Office Projects at ABN AMRO Bank. Original title? In Dutch.
2003 | *Van der Voordt*, Costs and Benefits of Innovative Workplace Design.
2003 | *Frankema*, Office Innovation from an Economic Perspective.
2004 | Becker, Offices at Work: Uncommon Work Space Strategies that Add Value and Improve Performance.
2004 | *Van der Voordt*, Productivity and Employee Satisfaction in Flexible Offices.
2004 | Allen at al. (DEGW), Working without Walls
2005 | *Mallory-Hill et al.*, Evaluation of Innovative Workplace Design in the Netherlands.
2005 | *Volker & Van der Voordt,* An Integral Tool for the Diagnostic Evaluation of Non-Territorial Offices.
2006 | *Martens et al.*, Workplace Guide ('Werkplekwijzer'). In Dutch.
2006 | *Van der Voordt & Maarleveld,* Performance of Office Buildings from a Users Perspective.
2007 | *De Bruyne*, Effective Implementation of Office Innovation. Original title? In Dutch.
2008 | *De Bruyne & De Jong*, The Workplace Game: Exploring End Users' New Behaviour.
2009 | *Brunia & Hartjes*, Personalization in Non-Territorial Offices
2009 | *Maarleveld et al.*, Measuring Employee Satisfaction in New Offices – the WODI Toolkit
2009 | *Ikiz-Koppejan et al.*, Accommodation Choice Model. Original title? In Dutch.
2009 | *De Jong et al.*, Effects of the Workplace Game: A Case Study into Anticipating Future Behavior of Office Workers
2010 | *Van Meel et al.*, Planning Office Spaces. A Practical Guide for Managers and Designers
2010 | *Gorgievski et al.*, After the Fire. New Ways of Working in n Academic Setting,
2012 | *Van der Voordt et al.*, Evidence-Based Decision-Making on Office Accommodation: Accommodation Choice Model.
2014 | *Riratanaphong,* Performance Measurement of Workplace Change.
2012 | *Van der Voordt et al.*, Post-Occupancy Evaluation of Facilities Change.
2014 | *De Been & Beijer*, The Influence of Office Type on Satisfaction and Perceived Productivity Support.
2015 | *De Been et al.*, Framing of Governmental Work Environments. Original title? In Dutch.
2015 | *Van Meel,* Workplaces Today.
2015 | *De Bruyne & Toolen*, The Workplace Game.
2015 | *De Bruyne & Beijer,* Calculating NWoW Office Space with The PACT Model.
2016 | *Brunia et al.*, Accommodating New Ways of Working: Lessons from Best Practices and Worst Cases.





Franklin Becker is em. prof. of Organisational Ecology at Cornell University, Ithaca, New York (1972 – 2009), former chair of the Department of Design and Environmental Analysis (DEA) at the College of Human Ecology, former director of the International Workplace Studies Program, member of various editorial boards, member of the Cornell Cooperative Extension Quality of Life program, and prof. at the Medicolegal And Literary Works, LLC.

In October 2004 I had the opportunity to visit Frank Becker at the Cornell University in Ithaca for a couple of weeks, to learn more about the International Workplace Studies Program (IWSP). The mission statement of IWSP is to generate research-based information related to the planning, design, and management of facilities that can contribute to the development of more competitive and effective organizations. The focus is on new ways of working and new integrated workplace strategies. I got noticed of a considerable number of case studies on the effects of non-territorial offices and teleworking - at home, with the client, in a hotel, in a telework center – on communication, social cohesion, collaboration, attraction and retaining staff, turnover, productivity, and facility costs. Most studies include an extensive review of literature, a user survey with web-enabled questionnaires, interviews with focus groups, observations and analysis of documents.

One of the main conclusions from this work is the need for an integral approach of "The Total Workplace". This concept refers to: 1) integrating decisions often considered in isolation by different departments (HRM, IT, Facilities Management, Corporate Real Estate Management); 2) the awareness that the workplace is more than one's own personal office or workstation; the entire workplace includes the site, amenities, common areas, project rooms, and support areas), a s a "series of loosely coupled settings"; 3) the awareness that the processes used for planning, designing, and managing the workplace are as much a part of the building's quality as are its physical characteristics. A second conclusion was that in spite of all great opportunities of virtual communication due to modern technology, face-to-face contacts are still very important to tacit learning, building trust and social cohesion, and young employees' learning on the job by becoming an "insider".

The IWSP-research has improved our understanding of what is really going on in the offices of our times. The empirical data can be used as a mirror for managers to take well-informed decisions. However, the data don't give a blueprint how a well performing office should be. Contextual differences with reference to organizational characteristics, working processes, the cultural and economic context, and differences with regard to demographics (age, gender, ethnics) and jobs require more or less a tailor made approach. But taking into account all key findings and lessons learned, decision makers can reduce the risk of "wrong" decisions and improve the probability of positive outcomes.

Source: Van der Voordt, T. (2004) Notes on a visit to Cornell University, Ithaca, New York. September 29 – October 31, 2004.

Lessons learned

From the may research projects by Hans' own staff members and the Center for People and Buildings many other interesting conclusions come up. The main drivers behind shared use of activity-based workspaces are rather similar to the ones behind open plan offices: stimulating communication and collaboration and cost reduction. Related objectives are increasing productivity due to improved collaboration and a better fit of activity-based workplaces with the variety of tasks and the psychological needs of modern knowledge workers to be free when, where and how to work, stimulating innovations, supporting (change of) culture, and contributing to sustainability by reducing the footprint. New ways of working in flex-offices are supposed to have a positive impact on these items, both from a business point of view (efficiency and productivity) and from the perspective of the employees (support of work processes, autonomy, flexibility). However, high ambitions and positive expectations are not always fulfilled in practice. In a recent paper by Sandra Brunia and Iris de Been (both CfPB) and myself we analysed the findings from over 50 flex-offices, two best practices and two worse cases. This cross-case comparison

showed that many people can cope rather well with shared use of activity-based workplaces, but a number of people complain about a lack of privacy, poor support for work requiring concentration, and insufficient storage space. Aspects that are, in general, appreciated by a high percentage of employees are the accessibility of new offices, the architecture, and the opportunities to communicate (all with over 60% satisfied employees), whereas indoor climate, privacy, archive facilities, opportunities to concentrate and sharing own ideas about the work environment are more negatively appraised (less than 40% satisfied). When people are prohibited to personalize the work environment, they seek additional ways to make the environment familiar and pleasant and to mark their identity.

The available research data reveal clear critical success factors, in particular: a supportive spatial lay-out that facilitates both communication and concentration, attractive architectural design, ergonomic furniture, appropriate storage facilities, and coping with psychological and physical needs such as privacy, thermal comfort, daylight and view. Open spaces should be alternated with enclosed rooms that are dedicated to concentration work or telephone calls and provide some privacy. Sufficient acoustic measures are needed to avoid aural distraction. Critical process factors are the commitment of managers, a balance between a top-down and a bottom-up approach, and clear instructions on how to use activity-based workplaces. Other factors that contribute to a successful implementation of a new office concept include a clear understanding of the nature of change, a thorough ex ante analysis of the organisation, its work processes and the current accommodation, clear and unequivocal objectives, strong leadership, and adequate aftercare.

All research findings improve our understanding of what is really going on in the offices of our times. The empirical data can be used by managers to take well-informed decisions. However, the data don't provide a blueprint how a high-performing office should look like. Contextual differences regarding organizational characteristics, working processes, staff characteristics with regard to age, gender, ethnics, education and function, and the cultural and economic context require more or less a tailor made approach. Taking into account all findings and lessons learned, decision makers can reduce the risk of "wrong" decisions and improve the probability of positive outcomes.

Concluding remarks

It is great to notice that the study trip of Hans de Jonge and his initiative to start a research program on new ways of working in the mid-nineties has resulted in such a huge number of research activities and decision-support tools. The research findings provide research based evidence that an appropriate work environment really matters and can make a substantial difference in high or low employee satisfaction and productivity support. Most findings are in line with the findings from former research in open plan offices. This shows that in spite of many changes in society, organisations, business processes, ways of working, and technology, some factors are constant over time and place and should always be taken into account to be successful.

Although Hans de Jonge is leaving the university and I already left the TUD in August 2015, Delft research on work environments will certainly be continued. It is a key issue in the research program of the Center for People and Buildings. One of Hans' current staff members, Salomé Bentinck, works of the experience and use of work places in higher education. Graduation students are highly interested in innovative work environments as well. My own successor, Tuuli Jylhä, co-authored papers on the perceived value of workplaces, value creation and lean thinking. This seems a sound basis to further elaborate our legacy of research on design and management of workplaces that fit with organisational objectives and end-user needs.

Dr. Ir. Theo van der Voordt is emeritus associate professor of Corporate Real Estate Management at the Department of Management in the Building Environment, Faculty of Architecture TU Delft, and senior researcher at the Center for People and Buildings.





The beautiful Campus of Cornell University, Ithaca, New York, where I spent a short sabbatical of four weeks in 2004 in the group of Franklin Becker



Saint-Benedictus Chapel in Sumvitg, Graubünden, Switzerland, designed by Peter Zumthor. Standing high in the Swiss mountains this chapel looks like a Noah's Ark being stranded. For me this chapel is a place of reflection and a sign of hope.

Remember the day with Mr Ossy M. Orshan?

Wim Pullen

It was a day away from the office in … late 1986? I am not even sure of the date. A colleague from the Government Buildings Agency (GBA) ('Rijksgebouwendienst', RGD) in The Hague whom I didn't know organized a one day seminar in Rotterdam. It must have been in restaurant Engels in the Groothandelsgebouw. The guy presenting the whole day to us was – you can't forget his name – Ossy M. Orshan. His subject was about the Life Cost Planning Model. At least that is what I think, because this is the only reference in the literature I found. The subject had my interest because the rules of thumb I used to calculate a construction budget were frankly spoken rather naive.

So Dick Jonker, one of my fellow workers at GBA, and I took the train from Arnhem to Rotterdam, not knowing what to expect. From the day itself I only remember the venue, and where we sat in the conference room. But most of all I remember the Questions & Answers hour. There was this character, sitting in the front on the other side of the conference room, asking one question after another. I guess it was 90% of the time that he asked the questions and made comments, all in fluent English. I can't remember seeing him, only hearing; but what I do know is that I bended over to my colleague Dick asking him: "Does that man work with us? What a character!"



Understanding space in its organizational thus political context is about the forces of organizing and disorganizing, about changing space and changing organizations, about producing space and reproducing space.

Hans, that guy asking all those questions must have been you. It was you. It was your subject, Rotterdam is your city and who else in the GBA had those international contacts to invite Mr. Orshan but you. Forgive me if I am wrong. Leaving Rotterdam for our hometown Arnhem we enjoyed that day and thought that all the knowledge presented would never be ours: too complicated, too far away from daily practice in a regional office of GBA as a public real estate organization. Could I have imagined that over 30 years later I wrote those memories as the introduction of intense collaboration and friendship?

It started at Moermond Castle

Moermond is an old castle in the village Renesse at the Zeeland island of Schouwen-Duiveland. The current and third castle was built next to the foundations of the original castle of Costijn Zierikzee which was built between 1229 and 1,244, of which only some walls have been preserved. The second castle, owned by Aernoud of Haamstede, was probably built before 1339 and lost in 1454. The new Moermond dates from 1513. Jacob Serooskerke built for the third time a castle and then used the old gatehouse and turned it into a residential tower. The flood of 1953 brought great damage to the castle. After restoration, the castle was successively used as a training and conference centre.





Moermond castle

In October 1987 i.e. over 750 years after the construction works at Moermond castle started, a small conference took place at this historic site. I travelled there to attend a two day conference. Honoured by the invitation of Frans Evers, newly appointed director general at GBA, Dickjan Nieuwenhuizen and I, both responsible for Accommodation Affairs in our regions (Dick Jan in ZuidHolland/Zeeland and myself in Gelderland, Overijssel en Flevoland) were the youngest participants at the conference. We just turned 30 years old and we were excited. It was for both of us our fourth year working at GBA that we became part of a major renewal of GBA that started there: working on a new political strategy called the Governmental Accommodation Plan ('Rijkshuisvestingsplan'). Entering the conference room with only a note book there were not yet many participants. Most were directors that I had met before; only about 15 people were attending, all men but one: Ms Bertie Kouwenhoven. On the left side of the long table my eyes were caught by two piles of paper documents. Behind that pile a tall man was making notes already – the conference had not even started. I estimated him a couple of years older than I was. At first glance I thought he had pleasant but determined looks. We said hello, I introduced myself and so did he: 'I am Hans de Jonge', he said.

Much can be written about what followed. During the conference we were taught some principles of project management by Henk Wijnen, one of the Dutch gurus for this subject. We discussed numerous subjects and I noticed that Hans was very active in the debate, bringing new ideas on the table about development of our field. I confined myself to portfolio management, looking for crossovers from modern portfolio theory as it was developed for the stock market. The next months were a real professional treat. I was released from regular duties to participate in this project and I was able to spend time thinking and joining mental forces with the brightest minds of our agency. I discovered a new world and was attracted by all the new subjects that were introduced by Hans and his R&D colleagues. It was funny that some proposals were good ideas but never could work in my daily practice in Arnhem. After each and every meeting in The Hague I had 2 hours of commuting time which I took as an opportunity to reflect on what I heard and learned. I remember my main objective was to propose ideas that were both new and applicable in practice. After six months it was over and I returned from the city where it all happened to my provincial activities and…. finding myself kind of bored with provincialism. One highlight that spring

in 1988 was the parliamentary debate on the Government Accommodation Plan ('Rijkshuisvestingsplan'), defended by minister Ed Nijpels who was seconded by Hans de Jonge. We were proud on the approval by the parliament of what we worked on with so much effort, enthusiasm and energy.

A telephone call in early 1988

"Wim, you are coming to work for me"; I recall the phone call clearly. A weird invitation, or was it a prophecy? "I guess not" I responded, "realize the beautiful east of the country where I live, I am not moving house to the busy west". But your invitation Hans, turned out to be a prophecy and I don't regret the moment we decided to come and joined forces. Every single day was a learning experiment and still is: in good and bad times. Since 1988 our collaboration has been intense and fruitful. First in the research department of GBA, in the development of accommodation policies, tools, methods and data collections, and later on when you joined Delft University of Technology.

The change of the millennium turned out to be a real turn in my career. Late 1999, early 2000 – I had been on sick leave for a couple of months – Hans decided now it was the time to create a learning entity next to the department of Real Estate & Housing (currently called Management in the Built Environment) at the Faculty of Architecture where Hans was teaching since 1991. We called it the Center for People and Buildings (CfPB), a not for profit foundation with a focus on people, their work and work environments. Making knowledge, sharing knowledge is still our motto. It was a couple of years after the first non-territorial offices started to appear in the Netherlands. There were early adopters of the idea that people would develop nomadic workstyles, that Information Technology might allow foot loose working and office space could be used more efficiently. The firms and public bodies that experimented with New Ways of Working received a lot of attention. Many stories could be heard, but few facts were available about use of space, performance of end users, implementation and change management strategies. CfPB would become the core of creating a scientific sound body of knowledge, supported by organizations coming from public and private markets.

About the Center for People and Buildings

The Center for People and Buildings (CfPB) is an independent not for profit scientific knowledge centre that conducts research into the relations between people, work and work environments. With its activities the CfPB aims to stimulate research, product development and knowledge transfer within this field. The research is set up and executed for generic purposes, with participants from both the public and private sector. The CfPB pursuits to stimulate interdisciplinary exchange and cooperation between academics and professionals.

We pursue these goals on the basis of three main research activities. First, to track and monitor relevant scientific research and education, and the knowledge gaps that might exist. Second, the CfPB initiates, supports and conducts studies and related activities that are theoretic or more applied in nature. And third, we disseminate and transfer the knowledge that has been gathered through publications, lectures, workshops, debates and instruments or tools.

The Center for People and Buildings is the realization of a long-term desire that goes back to the early 90's. it is the story of the collaboration between Hans de Jonge and Wim Pullen. When Hans was appointed professor he came up with the idea to create a centre where young graduates with a few years of work experience could meet for inspiring and innovative discussions about knowledge questions. With the support of the Government Buildings Agency, the TU Delft and ABN AMRO Bank preparations started by Wim for the establishment of the Center in May 2001. In November 2016 we will celebrate the 15th anniversary. A symposium will be held on "New working environment, better performance?" to look back and provide some lessons based on our evidence. Of course we will also look ahead and reflect on the increasing pressure on cognitive performance.

More information can be found on the website www.cfpb.nl

Working on space and place

With a background in architecture, an interest in anthropology, experience in applied research, having worked as a manager, with a broad view on global trends, being a charismatic and visionary character and with a huge national and global network in academia and practice, Hans started to chair the new Real Estate & Housing department at the Faculty at Delft. He continued to work in those early days on corporate real estate management practices and theories. The field of application and case studies were chosen in big corporates and - logically explained by his background – mainly in the public sector. PhD students worked hard to create a body of knowledge that made the TU Delft at that time a leading entity in Corporate Real Estate Management (CREM) by its knowledge and publications.

Much can be said about the work done on CREM. In a Technical University the field of study is empirical, less theoretical, with a focus on description of cases, the creation of models and the connection with architectural design management by feeding back gained knowledge to briefing and design. The object of study was and is the management of real estate portfolio's, which is an applied field for non-property corporations. Not a theoretical scientific subject. The chosen approach was logical. Many descriptions of case studies both on building portfolio level and on the individual workplace level were combined with macroeconomic analyses and market forecasting of national portfolios, expected changes within those portfolios, and challenges for the construction industry. The generalization of the results of the descriptive approach were many: insightful models, practical methods, checklists on the added value of CRE for the company, best practice descriptions, and calculation models. Truly something for anybody.

An interesting question would be whether the background, study, interests, academic and practical aspirations of the research leader determines the outcomes of his work. Academics, scientists are seen as free spirits, discussing and writing about subjects that matter to them. When it comes to space, place, real estate management, architecture, organizations and people there is an interesting tribe of people being concerned about several issues. A short tour d' horizon enables us to consider what issues are at stake and what trends are emerging in real estate, thus framing a picture of possible future research topics. In the next part of this contribution I will describe the recent thinking of some academics in the field of space and place. As is it impossible to present a complete review, the choice of whose thoughts and publications I will touch upon is strictly personal. But I start with some considerations on terminology and definitions.

Approaches of space and place

Earlier in this contribution I used the words Real Estate (in Dutch: 'Vastgoed'). The use of this word in daily speech bears for many the connotation of large construction projects, commercial offices, conservative institutional investors, smooth developers and real estate agents in shiny cars. The smell of big money. The meaning changes when words like corporate or public are added. It makes sense to the reader that real estate can be seen in the context of an organization as a business resource. Thoughts are easily drifting away towards identity and architecture, place, and space. Functionality drives out the thoughts about 'big money'. When it comes to the image of offices the diversity in representation lies between the Uffizi =palaces and the 'comptoir' (in Dutch: 'kantoor'), the desk of the travelling salesperson. So apparently nothing new under the sun. Although formal standards exist that include definitions about real estate, space, and workplace, e.g. in the domain of Facilities Management (NEN EN 15221), the use of wording in daily practice reveals so much of intended meaning that I always got attracted to expressions of any kind, context or background of the user/author. Looking at my bookshelves I like to pay some attention to thoughts and developments of different authors.

Digging in the short history of Corporate Real Estate Management as an object of academic endeavour a couple of names of early adapters appear. But with my background in geodesy it was space that had my attention.

From the UK I remember professor Ranko Bon, (emeritus) Professor of Construction Management and Economics at the University of Reading, who caught my attention in the early 90's with publications on real estate portfolio management, corporate real estate

management and forecasting models on inputs and outputs of the construction sector. Professor Bon loved to think and write about predicting the future of real estate development and of national construction industries. He raised a strong appeal for quantitative measures both on macro and micro spatial levels. Since his retirement he works as an artist and author in Istria. His website www.residua.org reveals the artist within the man, next to the professor. Ranko made this interesting statement when he talks about his cave art (see pictures of his art work): "I am concerned with the continuity rather than originality".

I assume this speaks to the heart of modern men longing to be original but knowing that being multitalented is the gift of only a few. How often do young students at Architectural schools dream about being brilliant and creative, delivering unique building designs as soon as – or even before - they graduate. Yet during the course of their studies they find out that they need to unlock other talents rather than assumed originality.

As in the life story of Ranko Bon - it is either the artist or the professor that makes us aware "who is the real me?" I also met other people "lost in real estate of facility management". One of those characters is professor Ilfryn (If) Price working at Sheffield Hallam University.





Some artwork by Ranko Bon

By education and early profession If is a geologist. So *time* matters for If. Kondratiev waves (60-80 years) are nothing compared to the millions of years that are somewhere in the back of his mind. Yet If is now looking into buildings and how people use them. During his working life he – as he writes in his CV - developed "a personal research interest in the process of change and the behaviour of organizations as Complex Adaptive Systems". One of the questions If has been writing about is the replicator system of organizations. The two traditional approaches (engineering vs. the social anthropological approach) could be enriched if we look from a evolutionary - biological perspective. What can we learn from systems, patterns, occurrences in over 4 billion years of the earths existence? In their book *Shifting the Patterns,* If Price and Ray Shaw (2000) write about organizational memetics, which are the mental models that make organizations thrive, reproduce, survive. What are the underlying principles of socially constructed realities? Is the conclusion justified that a geologists work – even when he changes his attention from the earth to manmade structures like organizations and buildings- always centres around the key issue of his discipline: *time*? If I answer this question with yes, I might examine my own development in professional life. After being educated in geodetic engineering where *distance* and *gravity* matter I got involved in real estate, in buildings and workplaces and most to *work-space*. But let me then look at some people that influenced me when it comes to space.

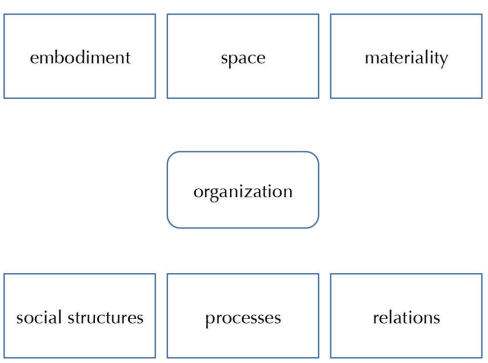
I have to mention a bunch of people from the social, management and organization sciences that influenced me with their thoughts: Dvora Yanow, Alfons van Marrewijk, Stewart Clegg, Martin Kornberger, Karen Dale and Gibson Burrell. They all produced important writings about space, work, power, materiality. Each of them recognized that space requires attention and talked about bringing space back in (Kornberger and Clegg 2006) or *Bringing the building*

back in (Van Marrewijk, 2015), somehow referring to the famous article *Bringing Men back in* by George Homans (1964). As a founder of behavioural sociology Homans plead for less theoretical and abstract sociology focusing on society rather on human activity. The use of those three words "bring back in" appears to me like a magic spell: we can make something appear what apparently had - purposely or not – disappeared. For instance in their book *The spaces of organisation & The organisation of space; power, identity & materiality at work* Dale and Burrell (2008) chose to put the organization in the centre of their studies.

Dale and Burrell (2008) write about space as a managerial tool. The re-organization of space re-sets all variables in their diagram: disruptive or smoothly. Understanding space in its organizational thus political context is about the forces of organizing and disorganizing, about changing space and changing organizations, about producing space and reproducing space. What I like about those scientist is their attempts to describe and understand what they see in daily life, whether is it the opening of a new piece of architecture, the destruction of the Twin Towers or old Assyrian heritage, or big Corporate Headquarters of IT companies like Facebook, Apple, Google and Microsoft (choice of location, architecture, workplace concept).

Digging deeper in literature I found Lefebvre, Giddens, Weber, Marx, Bentham but also the ancient Greek like Plato and Aristotle. It was John Inge's book *A Christian theology of space* (2003) that provided me with a good historical overview of the development of meaning of place and space: "what begins as undifferentiated space becomes place as we know it better and endow it with value". In his review of this book Len Hjalmarson (2014) writes: "Inge differentiates between space and place and identifies the 'loss of place' as a regrettable feature of modernism". He reveals that while the Greeks recognized the significance of place, in the Western intellectual tradition space and time have received more attention". Plato distinguished between *chora* (space) and *topos* (place) while Aristotle wrote - as if he was what we call nowadays an environmental psychologist - about the experience of place.

As said I admired those organizational scientists and philosophers for their efforts to understand today's relationship between space and organization. But I often feel they are superficial when it comes to the human rationale and reaction to major developments in today's society and daily life, knowing that not much has changed in human behaviour since ancient times. Fear and anxiety seem to have governed human life. Utopian responses were the embodiment of hope. Space and place were predominant in utopian writings and experiments. In his second doctoral thesis *Utopia and the Gospel; unearthing the good news in precautionary culture* (2015) my friend Jaap Hanekamp "probes for bedrock under the utopian experiment and its newest manifestations as the precautionary culture"(p. 488) trying to uncover fundamental human thought, action, beliefs and faith. Jaap shows that "utopian thought is all concerned about harmony, fear, scarcity, power and a moral zeal" He continues "Underneath all this utopian moral passion to create a better world lurks a contradiction, which goes along with a culture that tries so hard to surpass its human boundaries. There is a contrast between the search for truth and truth itself" . In western science practice and interpretation we balance between our opinions of science as the systematic process of description and discovery vs science or technology as the truth we believe in (scientism, technicism).



Aspects of space from an organizational perspective (after Dale and Burrell, 2008)

The interesting point is that all discussions are punctuated with terms of space, place, boundaries. Within that realm and beyond that as a prerequisite for survival – which I perceive to be a central human motive – it requires that you know where you are, that you are not alone, you know where you go to, especially when you observe that life is taking you on paths that you don't want to go. Acceptance of what the given circumstances are combined with unshakeable faith can lead to unbelievable border crossings between space and materiality. With this I point to this famous, hopeful – and meaningful - line in the Bible (Gospel of Luke, Chapter24 vs 6.) where the angel says: "He is not here, he is risen"! This border crossing where place is substituted by an unprecedented changed materiality from death into life, forms – for me - the fundamental answer that there are ways to perceive human life beyond human thought. Those seven words reveal a truth where "a truly new way of life can emerge" (Hanekamp, p. 489).

Where does this lead to?

Beyond the description of all those influencers and with respect to daily work I have to mention the words of professor Frank Becker – in what became almost his farewell speech before retiring. At the Workplace Strategy Summit 2014 in Reading he said: "We should continue to combine academic and practice-based research, because they are complementary" (Becker, 2014). I feel supported by those words because this is what we do in the Center for People and Buildings: search in practice, action research but also aiming at evidence based results which for its sake urges the need for validity and reproducibility.

Reliable outcomes

Here I come to a first point to make, as important for a future development in (Corporate) Real Estate Management as for academic education in this field. We want to create a reliable body of knowledge, but do we do enough to reach that? Convincing people to take action has always been important (one of the pillars of the work of Hannah Ahrendt), but based on what ideas, data, evidence or ideology? When I read in *The Lancet* (Horton, 2015) or *Nature* (Editorial, 2016) that critical examinations of research outcomes and methods lead to the statement that we can throw away 50% of existing work because its lack of reproducibility (necessary to make generic conclusions) I feel we have to thoroughly consider our research methods and re-educate our students in basic knowledge of research methodology. Key is not to read some literature for a final thesis, but to go beyond that and learn how to judge the validity of findings. In his book "*In Search of Evidence. Empirical findings and professional perspectives on evidence-based management*" (2015) Erik Barends develops a method of "Rapid Evidence Assessments for Managers and Organizations". He provides the reader with easy to apply principles to obtain valid results from a literature review.

During the 15 years of existence of the Center for People and Buildings we found – what I call - pseudo research acting as marketing information. In his 2013 study *Cost and benefits of innovative workplaces*, Theo van der Voordt demystified a lot of this. Promising high values of productivity growth as a result of telework, ergonomic furniture etcetera turned out to be based on best guesses, field studies without proper definitions or reference data and figures. This "positive thinking bias" with almost incredible increases, benefits and profit growths is killing the debate on improving the quality of decision making in a field that is utterly complex because there are so many interdependent variables. At first sight and for the ease of decision making it might be in the interest of both consultants and commissioning parties to provide promising yet fake or unreliable knowledge, but the heritage will be a confrontation with risks and unintended consequences.

Searching for the constants

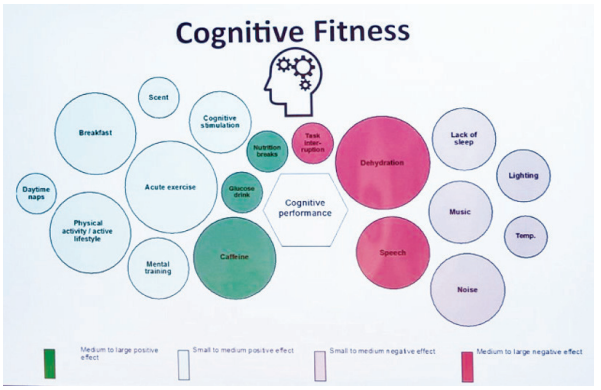
The workplace is not only a combination of materialized space moulded in convincing architectural design. The design, the realized workplace, the workplace in use are outcomes of the social enterprise. In this social enterprise we all look for reduction of risks as it comes to the now and to the future. We seem to talk 80% of our time about future problems that can be attributed to 20% of causes of real change, while the 80% of real change comes from what we don't know, don't discuss or don't research. It has often be said that we should not be preoccupied with change

while we overlook what remains the same or what has an almost evolutionary pace of change. Do we know what those constants are, and how do they matter? As an example here is possibly one of those constant patterns. The knowledge worker relies for performance heavily on what is called cognitive abilities. We know they are challenged when we grow older. Our cognitive fitness is made up by biological, behavioural and contextual variables. I wrote about it in an editorial called *Vital productivity* (Pullen, 2014). The picture is from a lecture by Karen Plum, AWA 2016.

Workplace features and behaviours are here: indoor environment qualities, the possibility to concentrate, food and drinks, sitting vs. moving around. How do these variables interact? There must be a bunch of evidence,. The EU project *Officair* brought us some conclusions pointing in the same direction (Sakellaris et al., 2016). One of the conclusions is "Understanding and evaluating occupants and building characteristics may help in providing healthier and more comfortable buildings". CRE research should pay attention to this connection between building characteristics, workplace layout, employee behaviour and organizational performance.

Time and distance

While we are concerned about space in CRE research, we might also think about 'time' and 'distance' . We might consider Time as a mapping indicator for change of organizational spaces. What can we learn if we paint a contemporary picture of CRE strategies of firms as they were studied in 1999 by Peter Krumm in his PhD study "*Corporate real estate management in multinational corporations. A comparative analysis of Dutch corporations*". A likewise beneficial field of study is the multifaceted concept of Distance including cultural, geographical, economic, psychic, and institutional aspects (Hutzschenreuter et al., 2016)). How do we frame and use distance in the development of Corporate Real Estate Strategies? What practical implications do we see in overcoming the limitations of distance?



Aspects influencing cognitive performance (CEBMA, Advanced Workplace Associates , London 2016, Source: https://twitter.com/AlbionImages/status/697017640586518528?s=03

Change and Worldviews

Organizational space is part of a political process. Developing a Corporate Real estate strategy, a new workplace concept or the implementation of the latter cannot be done properly without an understanding of the political arena in which those are to be developed. A strategy is not just implemented on the basis of change management methods. Many of those methods are designed as technological tools, or at least they are applied as such based on the mantra of efficiency. The dominance of efficiency - going back to the ancient Greek for whom existence was the main theme in life, which rests on the assumption that reality as we experience it is self-dependent - is revealed in almost any contemporary workplace discussion. It comes to us as costs, added value, usability, gains and profit. There seems to be hardly an escape if we want to replace efficiency by *meaning*. Corporate Real Estate Strategies can become richer, more meaningful if attention is paid to meaning beyond efficiency. To support thinking we require a framework. A favourite framework of mine is the Theory of Modal Aspects developed by Herman Dooijeweerd - based on Hebrew thinking, as opposite to Greek, which saw reality as we experience it as created by God, who is outside of it yet interacting with it. Beyond the economic aspect of reality which is about the frugal (efficient) use of resources Dooijeweerd defines the aesthetic (which has to do with harmony, surprise, fun), the juridical (which has to do with what is due; 'retribution', rights and responsibilities), the ethical (self-giving love) and the pistic (vision, aspiration, commitment, creed, religion). My plea is to use Dooyeweerdian thinking and theory to create meaningful and rich descriptions of CRE practices or workplace cases. The language and methods we need

will go beyond carefully defined scientific language. It requires rich and unreduced language, poetry, imagery, movies, art. When it comes to the pistic aspect – it is about intrinsic deep felt convictions and beliefs, leading to debate for instance between employers and unions or potentially to conflict. Such exercises will undoubtedly raise the level of critical thinking.

To conclude

The preceding thoughts offer an opportunity to deepen the CREM research agenda although - as I wrote before - the subjects reflect my personal convictions. Mental influencers were many during my 33 years of work. Hans was there many years with ideas, perpetual energy, convincing speech and personal support. With a bird's eye view over a broad and complex field of work. With a love for strategy. With charm and charisma, serving without complaining. It is hardly known to people what personal sacrifices Hans made to support and develop others, to bring a field of knowledge to where we are now. After so many years of work a lot has been achieved but as it is in science: broadening one's horizon, and answering just one question, at least three new questions and challenges pop up. For the sake of future research I paid some attention to what I believe is worth to dig in.

Dear Hans, more than 25 years of collaboration have gone by. In the phone call you made to me early 1988 to come to Den Haag and join you, my first reaction was: "No, we live in the east of the country, we don't move for a job". Some days later I realized you didn't just offer me a job, you offered me a learning partnership. Working together turned out to have a tremendous impact on my competences and career. I never regretted the day that I called you back to tell you that I was available.

It has been an honour to share life and work, ambitions, aspirations and commitment.

Ir. Wim Pullen is director of the Center for People and Buildings in Delft

References

Editorial (2016) Repetitive flaws. Strict guidelines to improve the reproducibility of experiments are a welcome move. Editorial Nature, 529(20), January 2016.

Barends, E.(2015) In Search of Evidence. Empirical findings and professional perspectives on evidence-based management. VU Amsterdam.

Becker, F.D. (2014) When assessing workplace strategy: test, don't guess. Work & Place 3(1), pp 6-10

Dale, K and G. Burrell (2008) The Spaces of Organisation and the Organisation of Space. Power, Identity and Materiality at Work. Palgrave , London.

Hanekamp, J. C. (2015) Utopia and gospel: Unearthing the good news in precautionary culture. Zoetermeer: s.n

Hjalmarson, L. (2014) Theology of place. Bookreviews. http://nextreformation.com/?p=11886, last visited may 5, 2016.

Homans, G. (1964) Bringing man back in. American Sociological review, 29(5).

Inge, J. (2003) A Christian theology of place. Routledge, London.

Horton,R. (2015) Offline: What is medicine's 5 sigma? The Lancet 385(9976), p. 1380. April 11, 2015.

Hutzschenreuter, T, et al (2016) The concept of distance in international business research: a review and research agenda. International Journal of Management Reviews, 18, 160-179.

Sakellaris I, Saraga D.E., Mandin C, Roda C, Fossati S, de Kluizenaar Y, Carrer P, Dimitroulopoulou S, Mihucz V.G., Szigeti T, Hänninen O, de Oliveira Fernandes E, Bartzis J.G., and Bluyssen, P.M. (2016) Perceived Indoor Environment and Occupants' Comfort in European "Modern" Office Buildings: The OFFICAIR Study, In: Int. J. Environ. Res. Public Health 2016, 13.

Krumm, P.J.J. (1999) Corporate real estate management in multinational corporations - A comparative analysis of Dutch corporations. ARKO, Nieuwegein.

Price, I. and Shaw, R. (2000) Shifting the Patterns. ManagementBooks.

Pullen, W.R. (2014) Vital productivity. Corporate Real Estate Journal 3(2), pp. 92–94.

Kornberger, M. and S. Clegg (2006) Space, Organizations and Management Theory. Liber & Copenhagen Business School Press, Copenhagen. Cited in Van Marrewijk (2015).

Van der Voordt, D.J.M. (2003) Cost and Benefits of Innovative Workplaces. Center for People and Buildings, Delft

Van Marrewijk, A. (ed.) (2015) Bringing the building back in. APROS, Melbourne.

The Dooyeweerd pages on Aspectuality - Aspects as a Whole can be found at http://kgsvr.net/dooy/aspectuality.html, Dooijeweerd recognized 15 aspects of reality.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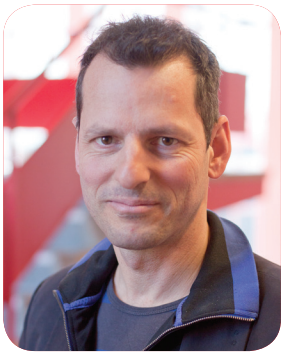
Andy van den Dobbelsteen

First encounter

My first experience with Hans was seven years before my PhD candidacy started, in 1993, during my master graduation project. I had reviewed the design (by Articon, a very moderate architects' office) and process (as led by the commissioner, Rijksgebouwendienst, or Government Buildings Agency) of the new Haarlem railway station office building, and I had written a critical report on it, as part of my master thesis. Having learnt about this new, young professor of Corporate Real Estate Management, who had ties with the Rijksgebouwendienst (Government Building Agency), I made an appointment with him and asked him about his opinion.

Totally surprised I found he had read the entire report in detail and commented on it elaborately. I got a serious reprimand on my work: this way of criticizing was not acceptable! It made a big impression on me, also because Hans already then had a flamboyant and naturally dominating stature over people. I walked out with the intention to rewrite the report so well that a man like Hans de Jonge would accept it.



Hans's quote has become my guiding rule: "Nobody ever died of hard work, but they did of too much distress." Never complain about working hard, if it alleviates your worries and distress, just do it.

Start of my PhD

In the year 2000 Kees van der Linden gave me an offer I could not refuse: start a PhD project on a topic of my own choice. After my master graduation as civil engineer and after civil service at the Faculty of Architecture (allowed because "no continuation of my career") I had worked part-time as teacher with professor Jón Kristinsson (one of my MSc graduation supervisors) and part-time in

practice as sustainable building consultant with opMAAT and NIBE. It was the period of the National Packages for Sustainable Building and I had a nudge that the focus lay on the wrong aspects to make a significant change in the environmental performance of the built environment. And I knew, from Ehrlich & Ehrlich, Speth and Jansen & Vergragt that we needed a factor 20 improvement to enable sustainable development. So I immediately took on that challenge, with offices as central focus. I wanted to do it part-time, next to my work with NIBE.

Being my professor at Civil Engineering, Hans Cauberg was the logical promotor. Next to him I wanted Jón Kristinsson for his pioneering work on sustainability. And I dearly wanted Hans de Jonge on the team, because since my graduation I still regarded him highly and in turn he had given me full confidence during my teacher period. Hans luckily accepted and I had a team of three promotors, an immense luxury, whose names all were derived from the saint Johannes…
A great process commenced.

Scheme of my PhD research

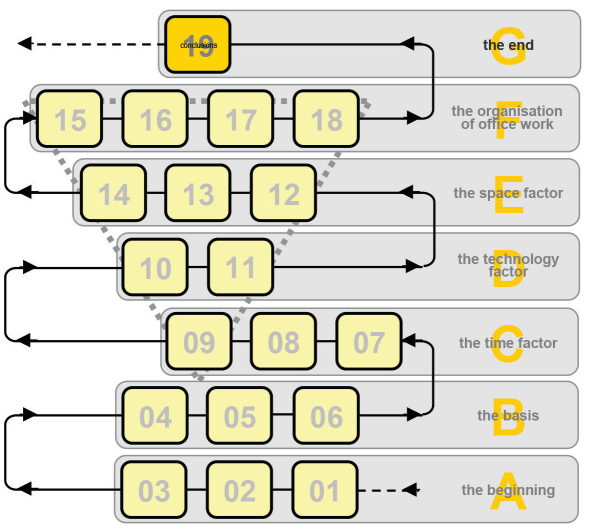
The name of my youth football club was VOAB, Van Onder Af Begonnen (Started From The Bottom), and that is what stuck with me when I made my final schedule for the PhD thesis.

My PhD thesis was called 'The Sustainable Office – An exploration of the potential for factor 20 environmental improvement of office accommodation' and as introduced already next to technology I investigated concepts of time, space and office organisation. These are all to be found in the scheme.

Decisive in directions

Hans was principally responsible for me leaving NIBE after one year of PhD struggles, when clear short-term consulting deadlines always won over vague long-term research objectives. He forced me to make a choice and I am eternally grateful for that. After my decision to leave NIBE my PhD work really took off. My supervisory team of three promotors worked great: Hans Cauberg was sharp on matters of energy and physics, Jón Kristinsson was inspiring in deviating thoughts, and Hans de Jonge actually was what we would now call an excellent daily supervisor: he was spot on, always, and sharp on every detail, both the overarching schemes, research methodology and details of presenting results. And that for a professor who never did a doctorate himself. Very impressive indeed.

Hans was decisive in directions I had to take during the process. Starting from a technological viewpoint he urged me to leave that and focus more on the 'soft' factors of office accommodation. I am eternally grateful for that, because I found that space, time and office work concept are more determining for the environmental performance than the office building's design and technology. A factor 20 improvement turned out to be possible by taking these aspects into account.



Graphical outline of my PhD thesis, starting from the bottom, working from the low-graded technology to higher-order office organisation, Hans' area…



My luxurious Tshukudu Lodge in Pilanesberg Wildlife Park, sat on a rock in the savannah landscape, overlooking a waterhole and animal life below, feeling a little bit like Hans de Jonge

Beyond the PhD

Motivated well by Hans and the others I managed to finish my manuscript within 4 years. The defence was a bit later, then already also because of PhD defence planning constipations.

This is the first time that I confess it: I messed up during my PhD defence. I knew there was one critical PhD committee member who hated the model I had used but I thought I could withstand his critique by a simple calculation of the sensitivity of one of my assessments. In the chaos before the defence I just could not get to the simple equation I had imagined and during the defence I defended this weak point as a second-hand car seller. I felt beforehand my work was candidate to being awarded cum laude, but this part messed it up. I knew, and I saw it particularly in Hans' sad eyes after a very long deliberation by the PhD committee: it would not be cum laude. Two days later I awoke at night and saw the correct calculation right before me, but then it was too late.

Nonetheless and seriously thanks to Hans' supervision I think my PhD project had become a fine set of work, with interesting and important findings that I could use for years to come when convincing both academia and market parties of the changes needed in the built environment. I delivered countless speeches and acquired a lot of research funding based on the work I had done, and ultimately all of this added up to me becoming professor of Climate Design & Sustainability less than five years after my PhD defence. One could call it sweet revenge, but without the failed cum laude I had never been so motivated to come out as number one this time.

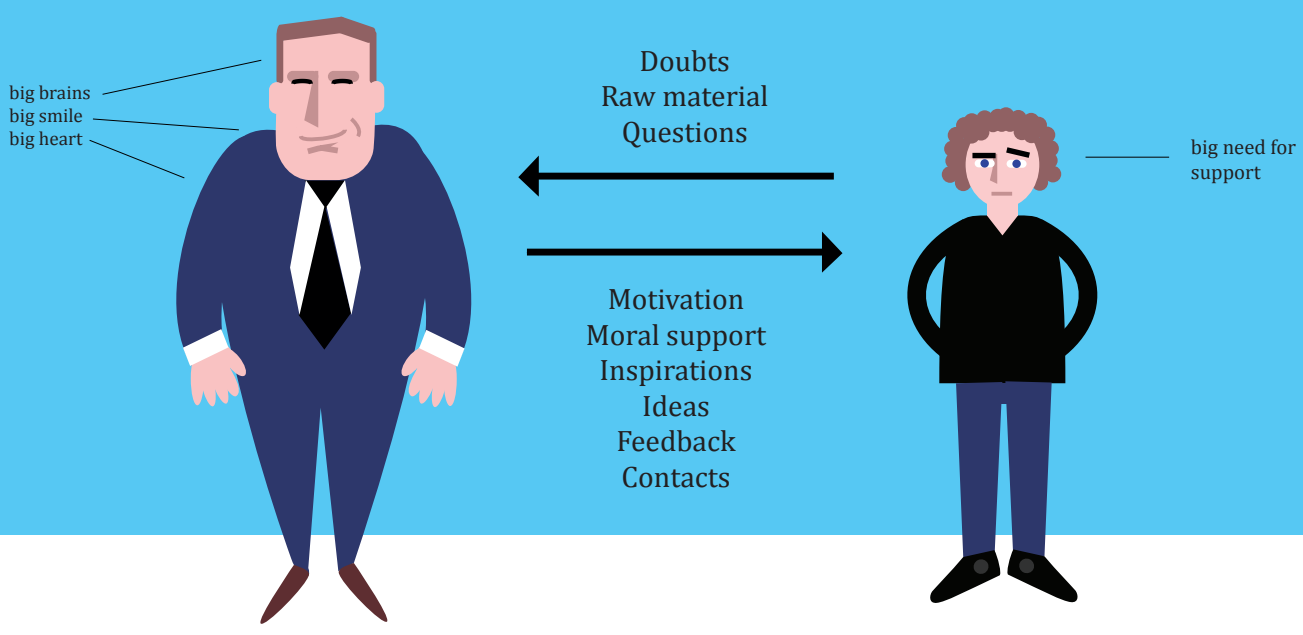
Hans showed his genuine pride of me becoming professor, and I am eternally grateful for it. It meant so much to me. Furthermore, since 2013 I have been head of department with Architectural Engineering + Technology. I feel I will never be as good a manager as Hans, but in my leadership I try to combine Hans' sharpness and clarity on the one hand and his humanity and social engagement on the other. So far it has worked.

Hans' lessons of life

More than the straightforward supervision of research content I think I learnt most from less explicit lessons of Hans. Many people probably just see him as an inspiring professor, a good manager, excellent moderator and sharp debater, which he is, all of them. Next to this and my experience with Hans as extremely engaged supervisor, I found he is really a very spiritual person, socially engaged and understanding the deeper meaning of life. Perhaps unintendedly he taught me all sorts of lessons, the most important one perhaps that even as a high-regarded CEO and professor you are a normal human being who coincidentally has become fortunate – by very hard work, oh yes – to be in a position to make a change, and that this also brings a responsibility to do something with it. Hans never told me this directly but I saw it and it impressed me.

Talking of hard work, one of his quotes has become my guiding rule: "Nobody ever died of hard work, but they did of too much distress." People should never complain about working hard. If it alleviates your worries and distress, just do it. I hold this rule of life highly when I work a bit longer into the night (Hans and I could start a 24-hours business, him taking the early morning, me dealing with the late night), so I can go to sleep without worries. I hardly ever lie awake anymore since I applied this rule of Hans, for which I am eternally grateful.

Prof.dr.ir. Andy van den Dobbelsteen is a former PhD candidate of Hans de Jonge, currently Prof. in Climate Design at the Department of Architecture & Engineering Technology (A&ET), Faculty of Architecture TU Delft.


big brains
big smile
big heart
Doubts
Raw material
Questions
Motivation
Moral support
Inspirations
Ideas
Feedback
Contacts
big need for support
PhD supervisor
PhD student

Supervision meetings

Juriaan van Meel

Supervision meetings are a crucial element of any PhD project. It is where the supervisor checks progress, suggests improvements and offers moral support. Luckily for me, Hans was good at all these things. The only problem with Hans was his calendar. Meetings had to be planned weeks in advance. Worse: meetings were often cancelled or postponed at the last moment. Typically, you would hear Hans stamping down the corridor -agitated, red headed and grumbling- to notify you that the meeting would not materialize because of other urgent matters.

I did not consider this as a problem, not really. My meetings with Hans may have been few and in between, but they were good. What Hans lacked in time, he compensated with energy and enthusiasm. One of the best things he did, was to give me the impression that my work was relevant. Perhaps it was some sort of motivational trick, but he was sure good at it. He made it seem that the world -or at least the world of real estate- was waiting for my PhD project. Nonsense obviously, but I loved it, and I needed it because, at times, doing a PhD project felt like an utterly irrelevant venture. I had to read loads of badly written, overly complex scientific articles, and then I had to write articles myself, which were to be published in weirdly named scientific journals, of which I wondered whether anyone ever read them. Moral support was welcome.



Typically, you would hear Hans stamping down the corridor -agitated, red headed and grumbling- to notify you that the meeting would not materialize because of other urgent matters.

Because of his frantic calendar, my meetings with Hans took place at a diversity of places: his car, restaurants, hotels, airplanes and even in a tour bus. One time, we met at my home, which was a bit awkward. I was in my twenties at the time, living on my own, in a small apartment, which was not particularly pretty, nor very clean. And there he was, in his nice suit, perfectly groomed, standing in my messy living room. I had nothing in the fridge and no coffee to offer. But I don't

think he minded. He just looked around, curious, and amused, like a cheerful anthropologist that is eager to examine how other people live.

Most meetings, however, would take place in his corner office at the Faculty of Architecture. Ignoring departmental rules, Hans had redecorated the room himself. He had painted it white, put up artwork (a silk print from Madelon Vriesendorp, as I remember), and brought in his own furniture—basic white tables and classy, tubular steel Thonet chairs. It was a sophisticated and calm space for an overly busy and active man.

The rule for our meetings was that I had to hand in my material at least a week in advance, so he would have time to read it. A nonsense rule because Hans never read it before last minute. When entering his room for our meeting, I would invariably find him sitting behind his desk, hunched over the document that I had sent him and he would say, "take a seat, give me ten more minutes". He would use a yellow marker to highlight important sentences and a pencil to making notes and fix language errors. When he was done with his speed reading, we would discuss the content. There would be compliments, critique and new ideas. He would push me, motivate me and set-up meetings with gurus in my field he thought I should talk to. And then there would be small talk. He would ask me about my friends, my girlfriend, and my parents. He wasn't prying, he was just genuinely interested.

I finished my PhD project more than 15 years ago. Now I have a busy career of my own. I still meet Hans. And even after all those years, he never fails to surprise and delight me with his wit, creativity and enthusiasm. I am always looking forward to our next meeting.

Dr. ir. Juriaan van Meel is a former PhD candidate of Hans de Jonge and a former staff member of the Department of Management in the Built Environment, Faculty of Architecture TU Delft. Currently he is a co-director and co-owner of ICOP consultancy in Rotterdam.





The first espresso bar in the old BK building at the Berlageweg



One of the places that has a special meaning for me: my workplace at the Faculty of Architecture and Planning, Thammasat University, Thailand.

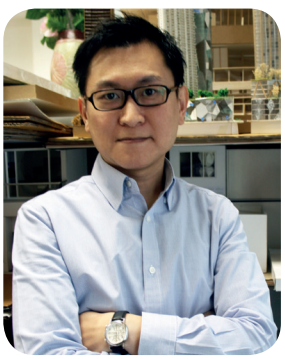
Performance measurement of workplace change

Chaiwat Riratanaphong

I was born in Surin and live in Bangkok, Thailand. The background in architecture and facility management brought me to start my academic career as an instructor at the Faculty of Architecture and Planning, Thammasat University (Thammasat Design School) in Thailand in 2005. With the support of a Thai government scholarship, I then pursued a doctorate degree in The Netherlands. I chose to conduct a PhD project at TU Delft because of the specialization of the faculty staff of the Management in the Built Environment department that is closely related to my research subject.

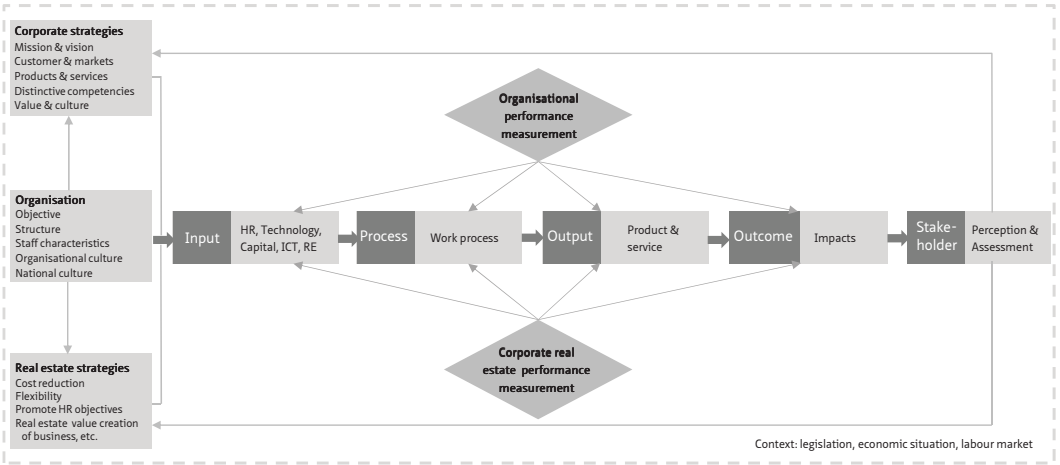
After my PhD application had been submitted to the department, I was notified by my daily supervisor, Associate Professor Dr. Theo van der Voordt, that my subject of interest in Performance Measurement of Workplace Change would be supervised by Professor Hans de Jonge. Subsequently, I came to the Netherlands and started a PhD study in November 2008, right after the old faculty building burned down.

At first, I barely met Prof. Hans during my first visit at the new faculty building, BK City, but spent most of the time consulting with my daily supervisor. However, during my first PhD colloquium in 2009, Prof. Hans criticized the research scope and guided me on the overall content of the thesis and gave direction on how to tackle limitations



It is important to be able to generalise research findings and the impact of research to a wider audience, and to be aware of the complexity of cultural factors.

of the research. In 2010, I went back to Thailand to conduct a field survey. After my 2nd PhD Colloquium in 2011, Prof. Hans gave his response on how to make sense of the survey data by linking insights of the case studies with theoretical findings. He not only urged me to emphasize the generalization of research findings and the impact of my thesis to a wider audience, but also commented on the complexity of cultural factors that should be put as a background issue of the research. I took his advice and completed my PhD study in January 2014.



Conceptual model of performance measurement

This conceptual model is based on the literature review as part of my PhD research. It aims to provide a better understanding of performance measurement from different perspectives (organisational and corporate real estate performance) and shows different processes of an organisational system (input, process, output, outcome). The conceptual model shows how organisational and real estate performance measurement can be applied to align corporate and real estate strategies.

I applied this conceptual model in two research papers as a follow-up of my PhD thesis, together with dr. Theo van der Voordt: 1) Public Real Estate Performance Measurement: A case study of a Bangkok Government Complex. Published in Journal of Architectural/Planning Research and Studies V 12(1), 2015, and 2) 'Performance measurement of public facilities in Thailand: A case study of Dhanarak Asset Development. Published in the Proceedings of the European Facility Management Conference 2015, Glasgow, UK.

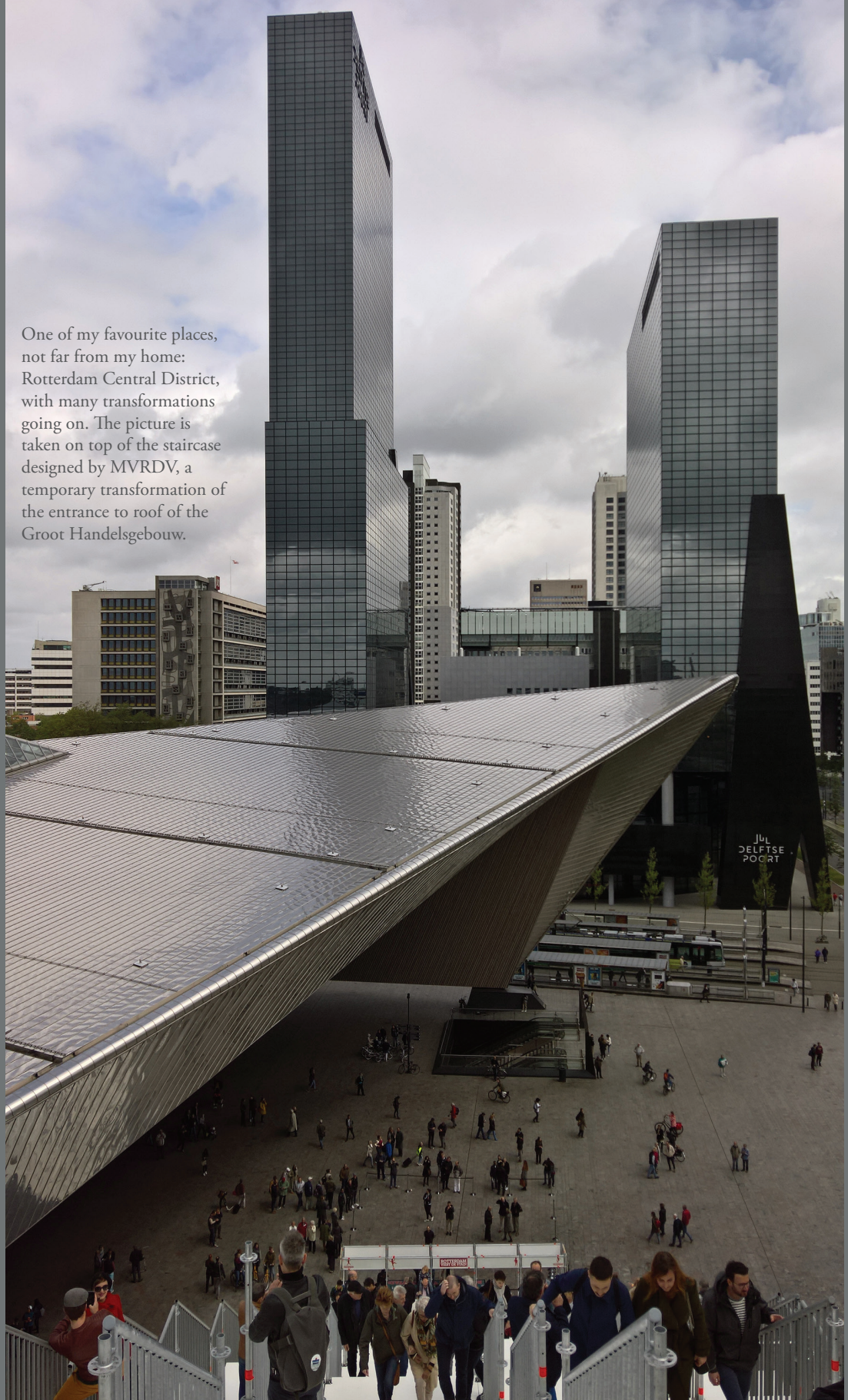
The achievement of the PhD study has been an important step towards in my professional and academic career. After graduating from the TU Delft, what I learned in The Netherlands helped me to continue my academic career at Thammasat Design School, Thailand. Knowledge and understanding in real estate management gained during my PhD study contribute to my current position as a head of the Innovative Real Estate Development department. Responsibilities in this role include both managerial and teaching activities in the Bachelor and Master degree programme in the Real Estate Development curriculum.

In addition, my involvement in the Corporate Real Estate Management (CREM) group at the Management in the Built Environment department has resulted in a further exploration of the developments in real estate management in various research projects, including: 1) Transformation of Urban Structure after Operation of Urban Rail Transit in Bangkok, Thailand (focusing on office Locations), published in the Proceedings of The 11th Conference of Asian City Planning 2014, 2) The Prioritization of Physical Components of the Common Area in Housing Estate Projects by the Modified Analytic Hierarchy Process Method, published in Payab University Journal V. 26(1), 2016 (with the financial support from Thammasat University).

In recent years, I have been appointed as a vice president for academic affairs of the Thailand Facility Management Association (TFMA) as well as a consultant of facility service companies. The PhD study and the specialization in performance measurement and FM has to a large extent contributed to these positions.
Prof. Hans is a mentor that has inspired my academic career. To have had him as my supervisor was a privilege and a great honour. His contribution to my research and my professional career is immense. I would like to thank prof. Hans for his support along the way.

Dr. Chaiwat Riratanaphong is a former PhD candidate of Hans de Jonge at TU Delft. Currently he is a lecturer and head of the Real Estate Development Program at the Thammasat Design School, Faculty of Architecture and Planning, Thammasat University, Thailand

Vacancy and adaptive reuse



One of my favourite places, not far from my home: Rotterdam Central District, with many transformations going on. The picture is taken on top of the staircase designed by MVRDV, a temporary transformation of the entrance to roof of the Groot Handelsgebouw.

Vacancy and adaptive reuse

Hilde Remøy

The start of Delft research into vacancy and adaptive reuse potential

Hans de Jonge introduced research on adaptive reuse of redundant or obsolete buildings in the department of Real Estate & Project Management in 1995. It was a logical follow-up of the office market research by Hans de Jonge and Geert Dewulf that was published in 1994, and pointed towards the redundancy and structural vacancy of office buildings in the Dutch office market. Following the 1994 office market research, the FGH Bank commissioned a research to better define the lower end of the office market. As part of this research, Geraedts and Van der Voordt developed a 'Vacancy risk meter', a tool to quickly reveal the risk of a building to become vacant. They also developed a so-called Transformation Potential Meter. Using this checklist decision-makers can scan a number of important characteristics of the market, the location and the building, to explore the opportunities and risks of adaptive reuse of offices into housing. As such the Transformation Meter can be used as a quick scan of a building's potential for adaptive reuse. While only a few internal building criteria showed to be a "veto-criterion", various location criteria can be the source to a negative transformation advice. Depending on the target group, the transformation of the building can be financially feasible; the location though is not that easily changed. The Transformation Meter was developed to assist decision making at the beginning of a possible transformation trajectory. In the same period, two graduation students – Hulsman and Knoop – conducted a survey among public and private parties to explore possible interventions to cope with the growing vacancy.



Worldwide changing real estate markets call for new real estate strategies, concerning vacancy and specifically vacancy of cultural heritage. Adaptive reuse is a means for sustainable development.

However, by the end of the 1990's, the Dutch office market saw a great shortage, based on the exponential growth of the internet industry and office work related to it. The 1994 office market research was forgotten for a while. As the internet bubble burst in 2001, followed by terrorist attack on the US and economic crisis, the office vacancy was back as an important economic and societal issue. While most market players thought the vacancy was part of the so-called hog-cycle and would pass as the economy picked up, just like the last time, this was not the case. New offices were still developed, driving old offices off the market, which resulted in vacancy. Moreover, 'new ways of working', characterised by part time working, desk sharing, working from home etc. caused a decreased demand of workplaces and less square metres per employee. New buildings were often the answer to new use demands, again triggering office development.

Ongoing research and policy interventions

Due to the growing interest in how to cope with vacancy, I was appointed as a new PhD in 2005. In my PhD research, structural vacancy was found just as often in buildings from the 1990's as in older buildings. Analysing these findings, Hans de Jonge was not surprised. According to Hans, the most important function of the design is its quality and ability to generate "love", because beloved buildings will always be adapted and reused. This quality is difficult to describe but it is evident in for instance buildings like the Rotterdam 'Groothandelsgebouw'. Most of the office buildings developed in the 1990's though, were developed for a 10 year rental contract, and not as buildings that should last.

In addition to a quantitative analysis of vacant and non-vacant office buildings, I also conducted various case studies of transformed buildings ex post, pointing







The Admiral" in Rotterdam, before, during and after transformation

Adaptive reuse means a major change to a building with alterations of both the building itself and the function it accommodates. Adaptive reuse is a means to aligning demand and supply of buildings, portfolios and areas and should be part of a real estate strategy. As most of the future's built environment already exists, adaptive reuse is an important invention in the management of the built environment. Adaptive reuse of a building can have a great impact on the direct surrounding or on the portfolio the transformed building is part of.

out important opportunities and obstacles for adaptive reuses concerning market, location and building factors. With this knowledge, the adaptive reuse potential of structurally vacant office buildings in Amsterdam was studied. The possibilities for adaptive reuse, focusing on building and location characteristics, were discussed with public and private developing companies, concluding that 40% of the vacant offices could be transformed into housing.

The financial value of office buildings was found to be one of the biggest obstacles for adaptive reuse. The book-value of vacant offices is based on potential tenancy income; and thus this method should not be used for structurally vacant buildings. The location of office buildings was a second obstacle. A substantial part of structurally vacant office buildings are located on mono-functional office locations, unsuited for residential adaptive reuse unless the location is transformed into a mixed-use location. Office buildings' characteristics were found to have less effect on the adaptive reuse potential, though having a large effect on the transformation building costs.

The Office TOP

In 2010, following the great financial crisis of 2008, the Dutch government realised the severe situation of the office market. The 'Office top' was installed in 2010. Hans de Jonge was the natural choice to chair the top. The aim of the office top was to involve all responsible market and public parties and work towards collective solutions for the office market. Although the specific measures that the top agreed upon in the Office Covenant 2012 were not implemented, the work of the office top has had effect by signalling the vacancy problem. Since then, the largest office municipalities have developed a policy for dealing with vacancy, ranging from a covenant between the municipality and market parties in Rotterdam, and more restrictive approaches such as a 'vacancy fine' in Amsterdam. In 2015, the municipality of Rotterdam commissioned an evaluation of their vacancy and adaptive reuse policy to the department of MBE.

Sustainability

Sustainability has become increasingly important over the last 25 years, something that underlines the importance of adaptive reuse. In the European Union, Buildings account for 40% of the total energy consumption, 35% of greenhouse gas emissions, 50% of all materials extracted and 40% of the waste generation. As 80% of the real estate needed for the next 100 years already exists, new demand primarily has to be accommodated in the current stock. Potentially, 50% of the existing real estate can be reused. Adaptive reuse contributes to a circular city; it reduces landfill waste and new material use, focuses development on the existing built environment, lowering land take for new buildings and infrastructure. The embodied energy contained within the existing building stock is considerable and the reuse of building materials can save up to 95% of embodied. Adaptive reuse is an important aspect in ongoing research focusing on sustainability of the built environment, such as the Horizon 2020 financed project 'REPAiR', which was recently started by a faculty-wide consortium.

Education

Educating students in topics related to adaptive reuse has been ongoing since the first research on the topic. Approximately a hundred (!) MSc students focused their graduation thesis on adaptive reuse. In the faculty, adaptive reuse has gained importance and interest over the past 10 years, but also in a wider perspective, in external education like the NRP academy, part of NRP (Nationaal Renovatie Platform), a knowledge exchange platform for adaptive reuse practice. The Post Experience Education NRP academy focuses solely on renovation and adaptation. It is accommodated by the department of MBE and co-created by Hans de Jonge.

Another educational project, related to the adaptive reuse topic is the 'week of the vacant building'. In this course, students from universities and universities of applied science, work together for a week to generate new ideas for redundant buildings. The course is funded by the Central Government Real Estate Agency. Every year the week is organised by another university, and was organised by MBE in 2014.

Key publications

Since the initial studies, research about adaptive reuse has focussed on the technical, functional and financial aspects that influence the potential and the feasibility of adaptive reuse. Decision support models for adaptive reuse have been developed, as well as tools for determining the adaptive reuse potential of buildings with different original functions into different new functions.

In the period 1995-2015, many studies were published in books, conference proceedings, national and international magazines and scientific journals. The table shows a selection.

Topics

In the period 1995-2015, a broad field of adaptive reuse studies have been conducted by staff and students, for research and practice use, commissioned and financed by scientific and practice parties.

Feasibility studies (building level)

In the broadest sense feasibility studies include life cycle costing, highest and best use, real options, and cost-benefit analyses. These studies deliver basic knowledge to be incorporated and built upon in other studies.

- Adaptive reuse and exploitation costs compared to costs of demolishment and new build (financial, social, and environmental) from a life cycle perspective;
- Impact of architectural, functional, cultural, technical and legislation aspects on feasibility of adaptive reuse;
- Environmental sustainability of adaptive reuse;
- Comparison of different adaptive reuses, including adapting buildings and locations to fit the preferences of "new" office users.

Key publications on vacancy, transformation and adapted reuse

Year | Author(s), *Title*

1998 | De Jonge, Geraedts and Van der Voordt, "*FGH-transformatie-onderzoek; vraag en aanbod in de Rotterdamse kantorenmarkt*". Research report.

1998 | Hulsman and Knoop, supervised by De Jonge, *"Transformatie van kantoorgebouwen: sturingsmiddelen om herbestemming van kantoorpanden te bevorderen"*. Report based on MSc thesis

2003 | Geraedts and van der Voordt, "*Offices for living in: An instrument for measuring the potential for transforming offices into homes*". Open House International, Vol. 28, no. 3, pp. 80-90

2004 | Hek, Kamstra and Geraedts, *"Herbestemmingswijzer"*. Book based on MSc thesis Hek

2007 | Remøy and Van der Voordt, "*A new life – conversion of vacant office buildings into housing"*. Facilities, Vol. 25, no. 3/4, pp. 88-103

2007 | Van der Voordt et al., "*Transformatie van kantoorgebouwen: thema's, actoren en instrumenten*". 010 Publishers

2009 | Remøy and De Jonge, *"Transformation of monofunctional office areas"*, in Van den Dobbelsteen, Van Dorst and van Timmeren: Smart Building in a changing climate. Techne Press.

2010 | Remøy, supervised by Hans de Jonge and Theo van der Voordt "*Out of Office*". IOS Press. My PhD thesis on the cause of vacancy and transformation as a means to cope and prevent

2011, Remøy, de Jong and Schenk, "*Adaptable Office Buildings*", Property Management, Vol. 29, no. 5, pp. 443 – 453. Based on MSc thesis Wiechert Schenk

2011 | Remøy and Van der Voordt, "*Zorg voor leegstand*", research report. A study on the potential for transforming vacant offices for healthcare and care housing, in cooperation with BNA research

2012 | Remøy, Geraedts and Blom, "*Van leegstand naar leefbaar*", in: Quist, Stroux and Bierman: temp.mo.mo – tijdelijk gebruik van modern erfgoed: bedreiging of zegen? Delft Digital Press. Based on the MSc thesis of Alieke Blom

2013 | De Jonge, Remøy, Van der Voordt and Zijlstra, "*Leegstandsmanagement van publiek vastgoed*", research report. A pilotstudy for disposal and transformation of governmental real estate.

2014 | Wilkinson, Remøy and Langston, *"Sustainable Building Adaptation, Innovations in Decision Making*". Wiley-Blackwell

2015 | Remøy, Pallada, Hobma and Franzen, "*Evaluatie Convenant Aanpak Kantorenleegstand Rotterdam*", research report. A study for the municipality of Rotterdam to evaluate the Rotterdam policy that was based on the work of Hans de Jonge with the Quality board in Rotterdam in the period 2006-2010.





Cover of the 2007 book published by 010 Publishers and all authors
The Architect, a Dutch professional journal, labelled this book as the "transformation bible" due to its extensive overview of themes, projects and tools. The idea of writing a book on the topic was inspired by the interest from the field. In the period 1998 – 2005, several partial studies were conducted by staff and students at the department of Real Estate & Housing. The making of the book has been funded by market parties and the faculty. The book was edited by Theo Van der Voordt (circled photo at second row,) with Rob Geraedts (circled photo, first row right), Hilde Remøy (circled photo, first row, left), and Colin Oudijk, our student assistant (circled photo, third row). It includes a large number of essays written by academics and practitioners



Hans de Jonge presenting the Wiley-Blackwell book
Adaptive reuse research has mostly focused on the Dutch context and office vacancy. However, worldwide changing real estate markets call for new real estate strategies, concerning vacancy and in specific the vacancy of cultural heritage. Moreover, adaptive reuse as a means for sustainable development is a driver in international research. MBE is leading in adaptive reuse research worldwide, and cooperate on this topic together with international partners.

Adaptive reuse of public and private real estate portfolios

Several public and private real estate investors hold portfolios with an increasing percentage of vacant properties. The decreasing value of vacant properties is an important issue. Moreover, portfolio managers have to deal with society and investors demanding social responsibility and investment in sustainable real estate. Some issues that arise are:

- Identification of which locations and buildings (in a portfolio) are suited for renewed office use, and which are better suited for other uses (highest and best use);
- Inventory of the current value of vacant properties, and what can be done to increase value;
- Tools to support decision-makers in which buildings to keep in use/invest in, and which to dispose or/demolish;
- Assessment of value development and depreciation in a life cycle approach to portfolio management;
- Guidelines to develop and implement a "vacancy management strategy" on portfolio level.

Adaptive reuse on urban area level

In the past decades, The Netherlands has witnessed a rise of place or area-based development projects that integrate private real estate development with the delivery of public goods and infrastructures. Although large-scale projects have become harder to organize since the financial crisis, it is still evident that place-based strategies may have a lot to offer to adaptive reuse assignments within existing urban areas. The ability of buildings to define and influence their surrounding area and vice versa was studied:

- The development strategy of the 'acupuncture' or phased approach to location transformation, including its feasibility;
- The influence of (temporary) adaptive reuse on the value of surrounding buildings;
- New ways of cooperating and financing area transformation, related to 'area redevelopment funds', 'demolition funds' etc;
- Redevelopment in the context of changing (governance) systems;
- Evaluation and design of instruments (scenario's, branding, games, temporary use), strategies, interventions and principles for public and private actors and PPPs including law and regulation.

Decision support models and tools

So far, various instruments have been developed to support feasibility studies and opportunities and risks of adaptive reuse, such as the vacancy risk meter, the transformation potential meter (with special checklists for conversion of offices into dwellings and care facilities and adaptive reuse of particular building types such as churches and schools), the so-called "Herbestemmingswijzer" (Guide to Adaptive Reuse), the ABC-method and the ABCD-method.

Concluding remarks

With adaptive reuse becoming increasingly important in academia and practice, and with a focus on external funding from research programmes like Horizon 2020, JPI (Joint Programming Initiatives), KIC (Knowledge and Innovation Communities), NWO, KNAW etc., the research is increasingly conducted in collaboration with other departments in the faculty, and with external parties. Within the faculty, cooperation with the Heritage & Architecture section and Climate Design and Sustainability chair from AE+T is obvious, and with the chair of Environmental Technology and Design from Urbanism. Internationally, research and knowledge is shared in research groups like DOCOMOMO, SASBE, CIB, and ERES. Research collaboration is initiated with Sydney University of Technology Henley Business School at the University of Reading, Loughborough University, The university of Melbourne, and Bond University.

Hans de Jonge has led the way in starting up collaborations with practice, and with research groups within the faculty, nationally and internationally. He always stresses the value of recognising other people's expertise and of collaborating to achieve better results together. I will do my best to adaptively reuse the research infrastructure and legacy that Hans de Jonge has built, and, expecting that Hans de Jonge himself will not transform into retirement although he is becoming emeritus, I hope he will be involved in the future as well!

Dr. ir. Hilde Remøy is a former PhD candidate of Hans de Jonge and currently associate professor of Real Estate Management at the Department of Management in the Built Environment, Faculty of Architecture TU Delft



Living in a former tax office: Puntegale, Rotterdam



June 27, 2012: Signing of the Agreement on Vacant Offices Approach by Minister Melanie Schultz van Haegen, present Minister of Infrastructure and the Environment and all the covenant partners

Working together: the (value) creation of less office space

Mireille Groet-Thewissen

For two years Hans de Jonge was Chairman of the Office Summit (June 2010 – June 2012), appointed by Tineke Huizinga, the Minister of Housing, Spatial Planning and the Environment (VROM) at that time. In 2011-2012 I have worked together with Hans, as Secretary of the Office Summit.

Office Summit

On May 25, 2010 the Office Summit took place in Rijswijk, the Netherlands. The reason for this meeting was the high structural vacancy rate of office space in the Netherlands. High structural office vacancy can be considered a waste of space and capital, and is also detrimental to the spatial and economic development of the Netherlands. The Office Summit participants agreed that these problems needed to be addressed by joining forces. This was expressed within a Final Declaration, signed by the Minister of VROM (Tineke Huizinga), authoritative representatives of investors, developers, tenants, the province of Utrecht and the municipalities of Amsterdam and Heerlen.

After the Office Summit, the Ministry established the 'Managing Working Party Vacant Offices Approach' (often still referred to as 'the Office Summit') led by Professor Hans de Jonge. Herein government and market parties collaborated on carrying out problem analyses, formulating options for intervention and drawing up a plan for action.



Each party has contributed to the occurrence of the vacancy problem and is therefore obliged to contribute to the Vacant Offices Approach.

Action Program Vacant Offices Approach

As the chairman of the Office Summit, Hans de Jonge has played a boosting and connecting role, in order to get all relevant government and market

participants around the table for the Vacant Offices Approach. For the first time in history, government (national government, provinces, municipalities) and market (developers, investors, tenants) collaborated on solutions to the vacancy problem. It was a great challenge to bring together all these parties and let them collaborate with each other.

Hans de Jonge confronted everyone: 'each party had contributed to the occurrence of the vacancy problem and was therefore obliged to contribute to the Vacant Offices Approach'.

For every party it became increasingly clear that office vacancy is a problem of the long haul no party can solve on its own. Collaboration is essential to the solution.

Compared to the existing mind-set, the Vacant Offices Approach required a sharp change of perspective for all parties involved:

- from control over spatial expansion, to control of stock;
- from offices as a financial product and business model, to accommodating the end user;
- from short term, to long term commitment;
- from ad hoc decisions, to land use planning aimed at creating sustainable locations;
- from the municipality as an active market player, to the municipality as market regulator;
- from 'everyone on its own', to (administrative) cooperation;
- from supply driven planning, to actual demand driven planning;
- from mono-functional office sites, to multifunctional locations with high urban quality;
- from individual building level approach, to area level approach;
- from the development of new sites, to urban redevelopment and regeneration.

Realising this change of perspective requires time, because it involves fundamental changes in the traditional ways of thinking and acting. But the necessity is evident. Therefore, in addition to actions sorting out the short-term effects, more structural actions are needed, promoting change and making it explicit.

On March 7, 2011 under the leadership of Hans de Jonge, the Action Program Vacant Office Approach was published with the main actions:

1. Redevelopment, restructuring, transformation, demolition and expropriation in at least ten experimental areas with regional partnerships;
2. Measures to improve the functioning of the office market in the long term;
3. Enhancing regional spatial planning, programming and coordination.

Agreement on the Vacant Offices Approach

During the implementation of the Action Program, the problem proved to be uncompromising. Addressing vacancy is a mourning process in which individual parties move at different speeds. Where one party is still in the stage of denial, another party already experiments in order to create solutions. Collaboration in practice was therefore not obvious. The financial consequences did become visible: the first investors wrote of assets.

Investors and developers insisted on accelerating the Vacant Offices Approach by signing an agreement in which each participant explicates their commitments. Hans de Jonge took the initiative to talk to individual parties behind the scenes. Stressing their importance and responsibility to contribute. Hans involved the banks, considering the comprehensive financial implications of increasing vacancy rates and the value decrease of office real estate. Within two months , under high pressure, and with the managing directors making space in their agendas on the spot the foundation for the Agreement on the Vacant Offices Approach was laid.

On June 27, 2012 under the leadership of Hans de Jonge, the Agreement on the Vacant Offices Approach was signed by the national government, provinces, municipalities, investors, developers, tenants and real estate investors. This agreement was the concluding achievement of Hans' chairmanship in the Office Summit.



Anno 2016

In the past four years we have built upon the foundation that Hans de Jonge has laid with the Office Summit. The covenant partners involved frequently come together to discuss the progress of the approach. Steadily they have - through trial and error - worked on the (value) creation of less office space. Writing of assets, demolition funds and certificates, sharing knowledge, experimenting, transforming, restructuring, reducing zoning plan capacity, investing in high-quality office spaces with flexibility for the future: These are a few of the ideas and actions that have been worked on. The result is that, now and in the future, more office space will disappear than new office space will be built. Scarcity is a necessity to create value. The desired balance in the office market has not yet been achieved. It remains an issue of the long haul, but with the Office Summit Hans de Jonge has laid the foundation for the approach. On this we will all carry forward.

Hans, thank you for the inspiring and energetic cooperation!

Mireille Groet-Thewissen is a former secretary of the Office Summit, and currently senior policy employee on real estate at the Ministry of Infrastructure and the Environment and member of the 'Impulse Team Retail Agenda'.

June 27, 2012: Signing of the Agreement on Vacant Offices Approach by Minister Melanie Schultz van Haegen, present Minister of Infrastructure and the Environment and all the covenant partners





Day of the Department 2005: Hans looks proudly to his team work to transform sand in a sculpture that represents the logo of our department

The Rotterdam approach of transforming vacant office buildings

Hamit Karakus

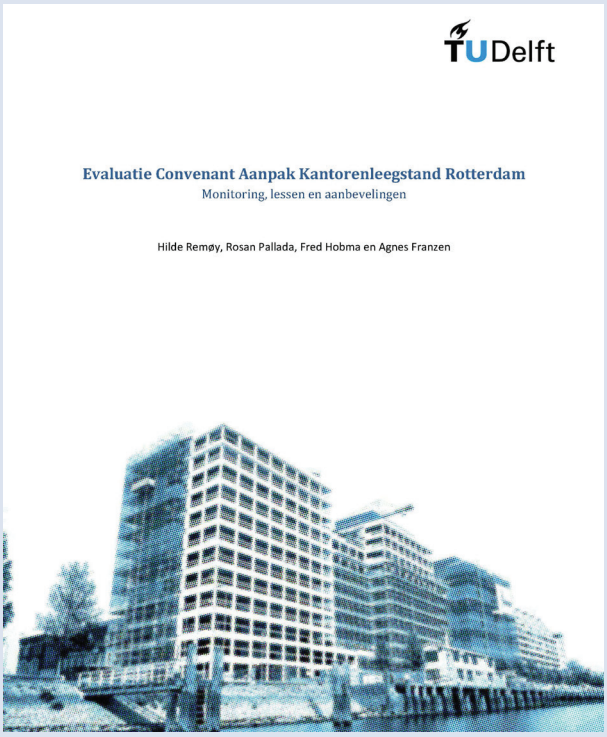
In 2006 I started as an alderman in Rotterdam, with the portfolio spatial development, housing, real estate and urban economy. One of my aims was to transform the municipal real estate services to a central organisation. Until that point, various municipal departments had their own real estate portfolio. Real estate was managed differently, using different (unclear) contracts, and sometimes there was no control of the contracts, or even no contract at all. In short; overview, aims and goals for the municipal real estate were missing, and thus steering and managing the real estate portfolio was impossible. An overview of the whole portfolio was needed, as well as insight in the societal and commercial real estate of the municipality. Based on this insight in the portfolio and on targets for urban spatial and economic development, a strategy was developed for how municipal property could be used to stimulate area developments. At that point, there were no examples or experiences with such approaches in the Netherlands. To steer the development, a quality board was formed, which could support the management and the alderman by delivering feedback on the ideas for portfolio management and area development. Hans de Jonge played an important role in this quality board, and based on his knowledge he delivered a strong contribution to set up a well-functioning real estate organisation.



To be able to manage a our real estate portfolio we need a clear overview of the whole portfolio and insight in the societal and commercial real estate of the municipality.

Office vacancy

In the same time, vacancy started to become a problem that was felt in Rotterdam and throughout the Netherlands. The questions that all policy makers were asking were: how to deal with vacancy? What would be possible solutions? What should be the role of the government? What tools could be used? What instruments should be developed? Nationally, vacancy became a political topic. The different political



Hilde Remøy et al evaluated the Rotterdam transformation policy and the covenant in 2015.



The evaluation comprised well documented co-creation sessions with stakeholders (source: Stratact)

parties, branch organisations, real estate owners, investors, municipalities, and ministries, were discussing possible solutions and the question of "blame". Hans had an important role in this discussion, and in 2010, he was appointed head of the national "office top" that aimed at finding common ground for reducing vacancy. In Rotterdam, we organised meetings at the local level with stakeholders and experts. Because of varying interests and ideas for solutions, we did not come to a unanimous approach. Eventually, in Rotterdam we chose to formulate a covenant with the market parties. The basis of the covenant was that all parties agreed to do their best to solve problems and rise to challenges that occurred. Based on the covenant, the municipality could deliver customised services and facilitate the market parties.

Whereas the rest of the Netherlands was still busy with the discussion on possible solutions and the "blame", in Rotterdam we started the transformation of vacant offices. Problems that occurred in the transformation process were resolved on a case by case basis, serving also for the municipal planning department to learn from the process. In the first year of the covenant (2011-2012) we had converted 100,000 m2 of vacant offices to different functions. Our approach was much appreciated and as an example of a good approach, it was often copied by other municipalities. Based on his expertise, Hans has provided insight into the vacancy causes and involved actors, and has delivered valuable input for solutions to the vacancy problem in Rotterdam and on a national level.

Hamit Karakus is a former alderman of the Municipality of Rotterdam and member of Platform 31.



Staircase designed by MVRDV, a temporary transformation of the entrance to roof of the Groot Handelsgebouw in Rotterdam.



Hilde's defence ceremony, Delft 2010

Out of office

Hilde Remøy

Financial and real estate crises and new ways of working have reduced the need for office space. Office markets have become replacement markets without a quantitative need for new office buildings: new buildings drive out bad buildings. In the Netherlands, 16% of the office space is vacant (DTZ, 2016), of which 60% is regarded redundant or structurally vacant. Structurally vacant is vacancy of the same square metres for three or more years, without perspective of future tenancy. Residential conversion is a way of reusing structurally vacant office buildings. I adopted this topic to start a PhD research in 2005. My aim was to explore the possibilities for conversion of vacant offices through theory and empirical studies, and to deliver instruments for determining the conversion potential (Remoy, 2010). I introduced my research proposal with the following statements:

"The office market shows a mismatch between supply and demand. Notwithstanding regional and local differences, various segments show substantial vacancy rates. Also other types of buildings are vacant for a long time. Sometimes these buildings are of great historic value and demolition is no solution. At the same time, the construction of new homes lags behind and there is a severe shortage of affordable housing for various target groups and in different price and quality categories. It is important to examine to what extent it is socially desirable and functionally, technically, economically and legally feasible to transform structurally vacant buildings into housing or other new functions".



The scientific challenge is to develop models and theory about lifespan and future value of real estate, to develop assessment criteria and business models for adaptive reuse and adaptability, and to implement life cycle thinking in real estate management models.

How hard can it be to write a PhD thesis? Sometimes, it is good not to know what is ahead of you. When I started my PhD research, I soon found out that the scope was too narrow and the aim to broad.

When suggesting this, I was of course anxious to hear Hans' comments as I was suggesting to change the topic of the research. When discussing the topic I was relieved to find out Hans agreed. I got the idea he knew all along that the scope needed changing. His comment was: "adaptive reuse is like treating the symptoms of a disease, but first, the cause of the disease must be defined. Then, the symptoms can be treated, and a vaccine to prevent or reduce the risk of a relapse can be developed". With this analogy I could draw a research design and design a structure for my PhD research, like Hans says, with two fingers up my nose!

How do you eat an elephant? One bite at a time. Hans introduced this metaphor that was very useful to dissect the research topic in smaller pieces, without losing sight of the main problem. Even with a clearly defined research problem, research is about breaking this research problem down into smaller parts that can be handled one at a time. This requires finding the right tools, describing the data, and defining the criteria and variables for analysis. Henceforth matrices, schemes and tables can be developed and filled with bits and parts of a research elephant that can be eaten bite by bite.

Writing a PhD thesis is the start of an academic career. How hard it is to write a PhD thesis depends not only on the candidate, but on the supervising team. Hans de Jonge and Theo van der Voordt formed my dream-team. Theo's eye for structure and detail, his drive to always improve and his ability to keep asking, and Hans' vision, analytic mind, design thinking and practice experience made my PhD research a great experience. It triggered me to continue working in academia after completing my PhD thesis and I gratefully accepted the opportunity to do so at the chair of Real Estate Management.

The office vacancy in the Netherlands is even higher now (2016) than when I started my PhD thesis in 2005. Overproduction and our culture of 'throwawayism' has led to this mismatch. However, as 80% of the real estate needed for the next 100 years is already built, new accommodation demand primarily has to be accommodated in the current stock. Potentially, 50% of the existing real estate can be reused, but still adaptive reuse is not taking place on a large scale. Existing real estate business, governance and financing models are not applicable to adaptive reuse. New, sustainable real estate strategies are needed to deal with these challenges. The central scientific challenges relate to developing models and theory about lifespan and future value of real estate, developing assessment criteria and business models for adaptive reuse and adaptability; and implementing life cycle thinking in real estate management models.

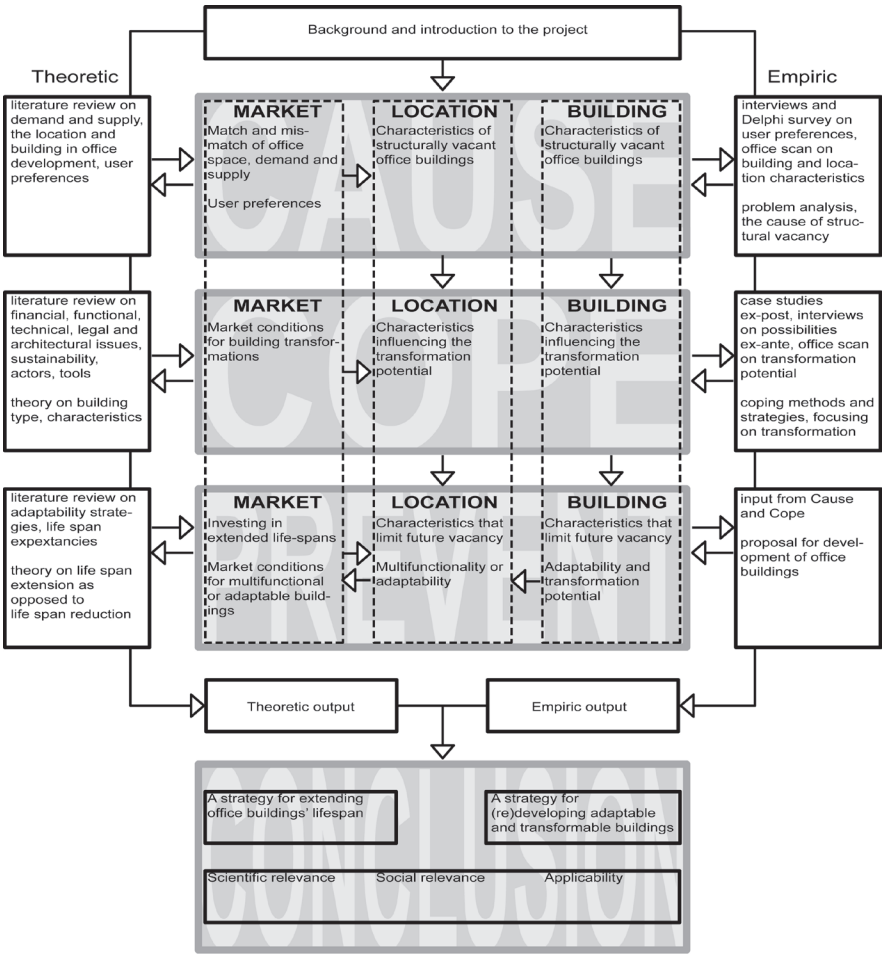
The practical challenge is to implement sustainable real estate strategies in practice. Now, following a 'circle of blame', different real estate actors blame each other for overproduction. Changing this requires all actors to involve to turn the circle of blame to a circle of opportunities. However, too many 'perverse' incentives and short-term thinking makes the challenge almost impossible. One possible solution is stronger market control. Another solution would be to address how new real estate is developed. 'What endures is what is dear' (de Jonge, 2002). Following this, new buildings should be worth keeping up to hundred years, and within a highly qualitative built environment.

References

De Jonge, H. (2002) What endures is what is dear. In: van Kasteren, J., Croes, H., Dewever, M. and Haas, M. (eds) Buildings that last: guidelines for strategic thinking. Rotterdam, NAi Uitgevers.

Remøy, H. (2010) Out of office, a study of the cause of office vacancy and transformation as a means to cope and prevent. PhD thesis TU Delft. Amsterdam, IOS.

Dr. Ir. Hilde Remøy is a former PhD candidate of Hans de Jonge and currently associate professor of Real Estate Management at the Department of Management in the Built Environment, Faculty of Architecture TU Delft.



Research design of Hilde's PhD thesis



Strategic session of the MBE department in 2005 at the Rottemeren

Real estate market and building economics



The Erasmus bridge across the New Meuse in Rotterdam, designed by Ben Van Berkel, connecting the north and south parts of Rotterdam; an example of an object chosen predominantly for its aesthetics rather than its costs.

Economics, cost and quality from a design perspective

Ruud Binnekamp, Ilir Nase, Philip Koppels and Hilde Remøy

The department of MBE was originally called Real Estate & Project Management (BMVB: 'Bouwmanagement & Vastgoedbeheer') covering the domains of construction management and real estate management. The "raison d'être" for this new department was based on the recognition that a fair amount of architecture graduates were more interested in managing a building's design and construction process than in its actual design. These students, however, were not taught management theories and skills at that time. As a result, they would end up in the construction industry poorly equipped for doing the job they were required to do. This lack in education was addressed by our new department. Our graduates are multi-disciplinary schooled, not only in architectural design, computational design and management theories and skills, but very importantly also in building economics.

The research domain Building Economics comprises research on the market and the value of buildings, and the relationship between quality and revenues, and costs and finance (Soeter et al., 2009). In the real estate market, the space market is interlinked with the asset market and the construction market. The Building Economy research programme analyses the real estate portfolios of investors. In what type of properties do they invest and what are the returns, risk profiles and outcomes?

From a decision making perspective quality and cost represent grouping of criteria on which to judge design alternatives.



A crucial aspect in this is the expected rental income. To a large extent, the research focuses on the rent level and return on investment, in connection to location and building characteristics (quality) (see for instance Koppels et al., 2009, 2011). A guideline for studies on costs and quality is the consideration that organisations are interlinked with their location and buildings. An optimal solution for accommodation depends on the selected approach. For example, with a lowest cost approach, a minimum of investment costs, running costs and life-cycle costs are sought after, usually resulting in low values as well. Research on the relationship between cost, quality, and willingness-to-pay is important to understand and steer on costs and quality.

The interface of (building) design and (real estate) economics

Ilir Nase

As one of the recent members to have joined the REM section I was very happy when asked to contribute to this Liber Amicorum for Hans de Jonge. However, I was a bit worried initially about my contribution when compared to other colleagues who have worked alongside Hans for quite a long time. My story outlines what I consider to be a key strength of our department.

The starting point is my job interview day at the department for a position that required expertise in both the built environment and (real estate/urban) economics. Having obtained a PhD on a closely related topic I was very surprised and happy to see a department with a long track record in the interface of design and economics.

At my job interview I met Hans for the first time. The usual 'grilling' of the candidates that commonly takes place in these events had a different dimension and I recall a more casual and friendly feeling during the whole event. Here I got even more in depth knowledge of the extent of the research and teaching the department undertakes on this topic and the specific Building Economics chair/group with substantial contributions in this area.

Very close to the end of the interview Hans asked my opinion on the profile and quality of the knowledge 'package' that the students are equipped with following graduation from a department that stands at the intersection of various disciplines. The distinction would be between graduates that have general knowledge about different fields as opposed to those who have in-depth knowledge on only one subject. My answer was rather vague and focused particularly on the benefits of interdisciplinary approaches to research but I was not able to elaborate very well on education, the benefits of the 'package' we equip students with. Given his key role as one of the founders of the department, I could understand Hans' point and his emphasis on the quality of education. However, coming from a different system, I was able to fully understand this topic only when I started teaching in the department.

Almost one year after taking up the position I was involved in teaching in the Real Estate Valuation course and thanks to the wide network of the colleagues I was introduced to key players in the Dutch real estate industry. Continuing on the course's tradition some of these key real estate practitioners were invited to discuss and evaluate students' work. During a discussion with one of these practitioners I finally had the answer to Hans' question that has been resonating in my had since I joined the department.

Asking Leopold Willems, director of International Valuations at DTZ Zadelhoff, for a specific contribution on the course related do legal aspects of Dutch valuation practice I got a rather surprising answer. In a joking mode Leopold replies that he was interested in the 'return of his commitment'. More specifically, he wanted to know how many interns would they get from this course. This was pleasantly surprising to me because, if there is one thing I have learned from the real estate field is that the best accreditation you can get is through practice. The answer Leopold gave to my obvious follow up question on the reason why they were after our students was encouraging and, quite interestingly, had a comparative dimension with graduates coming from a single discipline training. While economics graduates are very skilled in modelling and detailed calculations our department graduates have the general knowledge required about economics/management and, what is more important for the profession, they 'know buildings'. Here was the answer to Hans' question…

After almost two years working in the department, I have realised that we occupy a particular place in Dutch real estate education through the unique blend of design and economics which has gradually evolved to larger scales of the built environment disciplines. As one of the key founders of the MBE department Hans deserves the credit for realising this knowledge gap, filling most parts of it through research and education over the past two decades and contributing to the Dutch real estate sector through graduate cohorts with unique blend of knowledge.

The economic value of image

Philip Koppels and Hilde Remøy

One of the main research topics in Building Economy, related to the Cost and Quality research, is the relationship between quality and the office users' willingness to pay for this quality, measured by the rent price paid for offices characterised by specific location and building characteristics. The results of this research are important for understanding the demand for quality by office users, and which quality aspects should be focused upon in the urban planning and architectural design of offices.

In the field of real estate an often heard statement is that the rent level and the asset price of office properties are determined by "location, location and location". The chosen location is assumed to influence the competitiveness of the office organisation and this should result in increased willingness to pay, expressed in rent levels and asset prices, for locations with preferred characteristics. An important location aspect for office organisations are the opportunities for face-to-face contacts (Coffey and Shearmur, 2002). By congregating in space, office firms facilitate face-to-face contacts and minimise formal and informal transaction costs, which generates production efficiencies. Together with other 'external' efficiencies related to agglomeration effects this explains why office functions still remain among the most centralized of urban activities. In most discussions of agglomeration effects, the term is synonymous with urban economies of scale, referring to a host of potential 'external' efficiencies that result as the number of economic activities increase at a location. In addition to the urban economies of scale Archer (2003) considers presentation or image effects as important location factors. Image is an important signal in product marketing when the price of the service is relatively easily determined while the quality of the service is not, as is the case with many office services. Consequently, office firms engage in a multitude of activities to establish favourable recognition. Selection of site and building is one dimension of this strategy (Archer and Smith, 2003). A firm may be known by its neighbourhood, "by the company it keeps" or by the building it occupies. In effect the location and building choice might influence the marketing costs of an office firm. The importance of image effects has long been recognised in real estate literature and is often referred to as the 'right address'. Image may also be important for recruiting and retaining employees. Archer (2003) notes that the 'quality' of the location may influence (prospective) employee perception about the company; an important concept in 'employee branding'. While the impact of location choice on productivity has been extensively researched, there has been less attention for efficiency gains related to the building. An office firm searching for office space has not only considered the site, but also the building with its own bundle of attributes.

This study considered Amsterdam, by far the most important office market in The Netherlands, and was conducted with data from the period 1996-2007. A typical feature of the Amsterdam office-market is its dispersed spatial pattern. There is no predominant Central Business District (CBD), but there are quite a number of decentralised office locations and dispersed office buildings. A sample of 172 office buildings was obtained from the DTZ Zadelhoff lease transaction database. Buildings were selected on basis of the availability of lease transaction data in the period 1996-2007. Only buildings that were originally developed for office activities and were developed since 1950 were included in the sample. Supplementary lease transactions for the selected buildings were obtained from additional office lease transaction databases (Strabo and Dynamis). Due to possible data inconsistency between the various databases, a stringent filter was applied to ensure no duplicate lease transactions were added. In total 517 unique transactions, with a minimum lease size of 500 square meters were identified.

This minimum size was used because real estate agents in the Netherlands consider office lease transactions below 500 meters a very distinct segment.

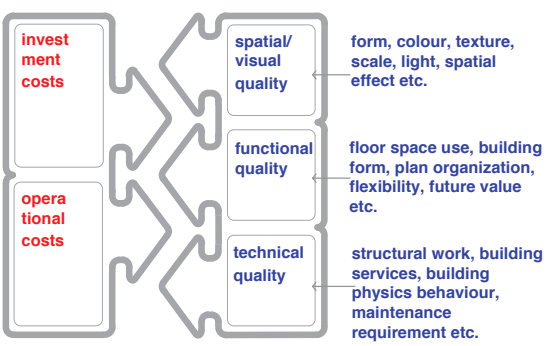
Theory argues that the location and ultimately the office building choice might induce productivity efficiencies. Three aspects were distinguished: urban economies of scale, presentation or image effects and the office environment. Two of these three aspects were incorporated in this study; urban economies of scale and image effects. Variables that are assumed to capture these effects can explain 64 percent in the office rent variations in Amsterdam. Looking at the results from the study, one could conclude that image is considered the most important location criteria as it explains 25 percent. However, this interpretation is too simple. Although the analysis reveals that office firms value presentation and image effects to a large extent, it is difficult to distinguish the separate effects for urban economies of scale and image effects. This is especially true for location variables. For example, the density of financial and business services is thought to capture face-to-face contacts opportunities, but also provides an indication of the kind of neighbours, which relates to image effects. Office users clearly value the "aesthetic" qualities of office buildings and are willing to pay for them. This was also confirmed in a previously performed Delphi-panel study among real estate experts (Koppels, Remøy, Van Oel and de Jonge, 2007). In that study exterior building appearance was ranked as the second most important building characteristic (car parking facilities were considered the most import property characteristic). Furthermore, user recognisability was ranked third and interior appearance was ranked fifth or sixth (depending on the tenants' profile). These results thus confirmed the importance of image for office users' willingness to pay, although it is important to also understand the influence of other factors.

Controlling Cost and Quality: a Preference-Measurement Perspective

Ruud Binnekamp

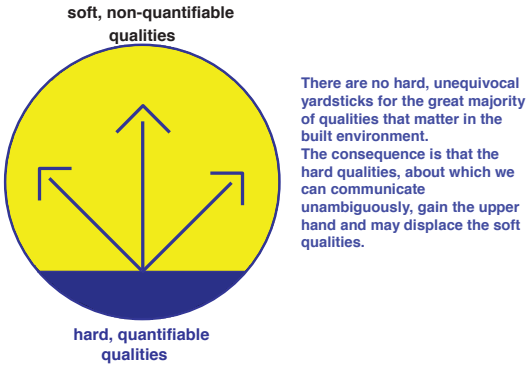
Since the early 1980s, Hans de Jonge pioneered research efforts in the field of the relation between quality and costs. Knowledge about the relation between quality and costs was at that moment not widely spread, so that this subject was poorly represented in the training of designers resulting in missed opportunities.

Kees Gerritse was one of the researchers who played a key role in this field in recent decades, contributing his background as an architect. In his book "Controlling Cost and Qualtiy" (Gerrtise, 2004) he introduces the world of cost/quality control in the early phases of the accommodation process, the phases where the most important decisions affecting cost and quality are made. The figure below shows how cost and quality are perceived as opposing entities. The quality aspects are divided in 3 categories according to Vitruvius. Gerritse brings us to the question of the measurability of these qualities.



The relation between costs and quality (source: Gerritse, 2004).

The figure below shows the distinction that is made between hard (quantifiable) and soft (non-quantifiable) qualities. The majority of qualities that matter in the built environment are part of the soft non-quantifiable qualities, communicating about these is perceived to be difficult. As a result the hard qualities which allow unambiguous communication displace the soft qualities. The result is poor decision making as only a minority of qualitative aspects is part of the design decision making process.



The distinction between hard and soft qualities (source: Gerritse, 2004).

The research on the relation between cost and quality is geared towards supporting (an architect's design) decisions which is the domain of decision theory. The scientific foundation of selection (choice) is preference measurement. Preference measurement underpins economic theory, the theory of games and decision theory. Recent research by Jonathan Barzilai (2010) has revealed errors at the foundations of these theories and other disciplines. This, for a large extent, explains the difficulties and confusion in trying to quantify qualitative aspects. Decision theory and proper preference measurement reveals some new insights when applied to the field of controlling cost and quality in the built environment.

From a decision making perspective quality and cost represent grouping of criteria on which to judge design alternatives. The only property of relevance in this context is preference. This means that a design's performance on both costs and quality are judged on preference. The individual preference ratings are then aggregated to determine the overall preference of each design alternative.

Given the above structure of the decision making problem of controlling cost and quality we make a distinction between objective and subjective properties. Objective properties are related to the design object itself (for instance it's geometry which can be quantified and is not a matter of debate). Subjective properties relate to how a decision maker perceives aspects of the design. As preference is subjective by nature, subjective properties are of relevance in making design decisions. The total floor area of different building designs can be measured objectively, however, it is up to the decision maker to attach preferences to each design on the total floor area (too big, too small, just right).

Experiments by Arkesteijn (2015) show that proper preference measurement, embedded in a iterative learning process, allows the decision makers to explicitly express their preferences and communicate on them. This removes the tendency of 'hard' qualities ousting 'soft' qualities.

Arkesteijn's work aims to support real estate portfolio decision making. Recent graduate work (de Visser, 2016) shows that there is commercial interest in applying this new approach in practice. Also graduate work (van Alphen, 2016) shows that the methodology can also be applied on the building level.

Concluding remarks

Hans de Jonge's concerns about hard qualities ousting soft qualities in mainstream research, education and practice makes perfect sense in a design environment such as the one that prevails in the Faculty of Architecture at TU Delft. Current developments in decision-making theory and preference measurement should remove some of his concerns as we have shown that it is now possible to quantify/measure soft qualities.

In the work of Building Economy, making soft qualities measurable has been one of the important issues. Discussing quality with investors and commissioners, the expression is often made that it is all about image. In research, we have found a strong link between image and value. In the same way, it is reasonable to say that Hans de Jonge's image has significantly contributed to increase the value of the Building Economy group and the department of MBE as a whole.

Ruud Binnekamp is assistant professor of Building Economy, Design and Decision Systems. His research focuses on design methodologies, decision making theory and preference measurements.

Ilir Nase is assistant professor of Building Economy, focusing his research on real estate and urban economics and the interface of urban planning/design and real estate.

Philip Koppels is assistant professor of Building Economy, focusing his research on the office market, office rental values and urban economics.

Hilde Remøy is associate professor of Real Estate Management, focusing her research on adaptive reuse of real estate, market mismatches, sustainable building adaptations and adaptive reuse of heritage

References

Archer, W. R. and M. T. Smith (2003) "Explaining Location Patterns of Suburban Offices." Real Estate Economics 31: 139-164.

Arkesteijn M.A. , Valks, B. , Binnekamp, R. , Barendse, P. , De Jonge, H. (2015) "Designing a preference-based accommodation strategy: A pilot study at Delft University of Technology", Journal of Corporate Real Estate, 17:2, 98-121.

Barzilai, J. (2010) "Preference Function Modeling: The Mathematical Foundations of Decision Theory." In Matthias Ehrgott, José Rui Figueira, and Salvatore Greco (Eds.), Trends in Multiple Criteria Decision Analysis, Springer, New York, pp. 57–86.

Coffey, W. J. and R. G. Shearmur (2002) "Agglomeration and Dispersion of High-order Service Employment in the Montreal Metropolitan Region, 1981-96." Urban Studies 39: 359-378.

De Visser, H. (2016) Testing the improved PAS methodology: Implementation of a search algorithm. Master Thesis, Delft.

Gerritse, C (2005) Controlling Costs and Quality in the Early Phases of the Accommodation Process. DUP, Delft.

Koppels P.W., Remøy H.T. & El Messlaki S. (2011) The negative externalities of structurally vacant offices: An exploration of externalities in the built environment using hedonic price analysis. 18th Annual European Real Estate Society Conference (ERES 2011). pp. 1-10.

Koppels P.W., Remoy H.T. & De Jonge, H. (2010) Know what you're looking for: a theoretical framework for hedonic office studies ERES 2010. Bocconi SDA (eds.). Milano: p. 1-4.

Koppels P.W., Remøy, H.T., De Jonge, H. & Weterings, A. (2009) The added value of image: a hedonic office rent analysis key issues in successful transformations of industrial heritage. In: Van den Dobbelsteen, A.A.J.F. (eds.), 3rd CIB international conference on smart and sustainable built environments. Delft: TU Delft, p. 1-8 .

Koppels, P.W., Remøy, H.T. & De Jonge H. (2009) The economic value of image. PropertyNL Research Quarterly, pp. 31-38.

Koppels, P., Remøy, H., van Oel, C., & De Jonge, H., (2007) Office characteristics and the fitness-for-use: a Delphi-approach. Conference paper. ERES, London.

Soeter J.P., Koppels, P.W & De Jong P. (2009) Market interdependencies between real estate, investment, development and construction: the Dutch experience. In Ruddock, L (eds.). Economics for the modern built environment. Abingdon, pp. 229-247.

Van Alphen, M.L.M. (2016) Op voorkeur gebaseerd ontwerpen van private huurwoningen. Master Thesis, Delft.





In 1972 the company Bredero had a turn-key project in collaboration with Kraftwerk Union in Neurenberg for the nuclear power station in Borssele. At that time the International Atomic Energy Agency (after the disaster in Japan) came with new requirements for earthquake resistance of these plants. Bredero and Kraftwerk Union then decided to revise their design and to meet these latest requirements. However, nor in Germany or the Netherlands an engineering company was willing to do the job. So, I got the job and resized the reactor building. This probably contributed to the fact that the reactor could remain in service for another 20 years, while all other nuclear plants of that time already been decommissioned. Therefore, this building is especially dear to me next to other successes with high-profile buildings at home and abroad.

Hans de Jonge is an indispensable talent[1]

Frits Seijffert

I have a deep respect for the versatility of Hans as a scientist This is the first thing I want to say. But especially one aspect I admire the most. I will tell you about it.

Before Hans de Jonge was appointed professor at the Department or Real Estate & Project management I was already there as a professor of building economics. So I'm not only about seventeen years older than Hans, but I'm older in seniority as well. In such a case you feel the leader of the group of teachers and students of the department. When we went on tour with the group, I took up that position. But on a tour abroad I did not succeed to maintain this chosen position for the following reason. I was born with a mathematics gift and a language dent. On a trip to England, Hans directly took the lead and faced our hosts with an unrivalled proficiency. I could not at all compete against him with my fumbling in English. In another year with a trip to Germany or Austria the same phenomenon occurred and I therefore kept a bit in the background.

But then, at a particular year, a trip to Paris was organised and I resolved to not let happen this again. I had had a pen friend in Paris in the years 1955-1956 and also went out with her in 1956. In that time I exerted myself to learn



It is unfortunate that Hans is retiring. The department will lose an all-rounder, the most valuable professor the department ever had or will get in the future.

the French language by supplementing my school French through a course on records, called a lingua phone course. As a glider pilot, I had flown in those days – and also afterwards – on several French airports and I managed to make myself understandable, on the ground as well as through radio communications. When it became clear that the excursion to Paris was going to take place, I took the lingua phone course out again and practiced for a few weeks like a madman. I also

bought French newspapers to familiarise with the current language and the events of the day. So I felt strong in my position as leader of the group. But what happened when we arrived in Paris? Hans immediately took the floor and appeared to master the French language in a way that I was far off. His wife, Alexandra den Heijer, which used to be my student assistant and was also present at the mentioned excursions, knowing about my frustration, said to me many years later that, when she was in Poland with Hans, she noted that he also masters the Polish language. When you hear this, you can only conclude that it is unfortunate that Hans is retiring. The department will lose an all-rounder, to me the most valuable professor the department ever had or will get in the future.

Notes

[1]The original title of this contribution was called in Dutch "Prof. Ir. Hans de Jonge is onmiskenbaar een "talen-t".

Prof. Ir. Frits Seijffert is prof. em. of Building Economics, Department of Management in the Built Environment, Faculty of Architecture TU Delft





BMVB in 1994 at the very start of the new department, including Frits Seijffert



One of my favourite spots: the podium at the TIAS building in Tilburg That's where I started the Master of Real Estate course for professionals, next to my own chair Real Estate Management & Development.

Real estate is not a tipi, but it will be used like that

Willem Keeris

Aside from cordial personal contacts, unfortunately close cooperation never was the case during the years I was the chair of Real Estate Management & Development at Eindhoven University of Technology, Department of Architecture. Not only because of the continuous pressure of work at both sides, but also because the corporate culture I was bounded to in these days did not really support external collaboration. For me it was a great honour, when Hans asked me to strengthen his team in Delft, after I had returned my Chair because of the extremely poor working climate. My great thanks for that offer once again. I have enjoyed that period as a member of your excellent team, though my aim to write my planned books came to nothing. A lot of articles yes indeed, in which I was able to present my opinions. But the aimed books were only coming since last years – and in the coming years as well.

In this contribution I will discuss my expectations about the probable future developments of our and related professional fields, based on the saying: 'history repeats itself'. It gives some food for thoughts about the uncertain future with plausible changes within the real estate market, as a result of the long wave Kondratieff-cycle, which is starting its spring period. Each of such spring periods has fundamental effects on the economy and social issues. Comments are as always very welcome. But first I go back to the developments in the past.



The factors 'where' and 'labour' are always linked together, but first that 'where' was the single 'here', the home situation. Nowadays 'where' is plural because it can be anywhere. This will turn the real estate market upside down.

Real estate management

Property is one of the necessities of life for humankind and for organisations, at individual and collective level. It is impossible to imagine it isn't there any longer: even nature reserves fall under the concept of real estate. We have a fantastic

professional and academic study field. Without adequate properties communities don't function any longer. Research from R.G. Ibbotson et all, first in 1984[1] and a few more repeated afterwards, indicated that property excess about 60% of all investments at global level. However, property hasn't always been so important. Neither was the degree of dependency of it during the existence of humanity. And now there is such another change to arrive. Although the value of real estate always is related to the present, it's based on the future, so it is important to consider that expected changing dependency.

Regarding real estate one can go far back in time! The fields of real estate management and facility management can be classified as 'pre-human'. According to very old well known sources, already before the arrival of the very first human couple there was a paradise, with its 'landscaping' and the 'exit-gate' as real property to maintain. The oldest written prose source from ancient times found till now, the 'Gilgamesh epic', underlines the importance of property: The Sumerian version, written about 2150 - 2000 BC on clay tablets in Mesopotamia. It positions the construction of the city wall of Ur at the centre of attention, which should offer human beings protection against the forces of nature.

In between those two moments in time the first people developed a Hunter-collector culture to fulfil the necessities of life. They were dependent on the amass of the fruits of flora and fauna, being the factor 'labour'. The availability of it determined the place to be and the factors 'how', 'what' and 'where'. There was a strong positive correlation between the required area to be covered and the growth of the local community, the tribe. Because the supply capacity from the immediate surroundings was running out quickly, people had often to move from one location to another one. To ensure structural delivering of the daily required 'in kind revenues' a large area had to be covered. As such the link 'labour – mobility' was born. The necessity to be mobile led to the need to reduce the number and weight of personal belongings, so that the housing situation was a moveable, personal estate matter. For instance by the use of wood and leaves. But a more pleasing and sustainable solution was the tipi or wigwam and their variants.

Due to the innovative nature of humankind, methods and techniques developed constantly in a positive way. And here, too, there was a strong correlation with the surrounding area to be covered, but now a negative one. The innovative development of the systematic use of the land, combined with domesticating cattle and pets as well as improved techniques and methods to survive, resulted in significantly higher yields per area. This made it possible to downsize the needed area, even with a growing population and increasing prosperity. However, due to the increasing productivity and decreasing mobility there was a growing need for better and safer storage capacity. As a consequence the quality of the housing situation and the facilities had to be upgraded. This brought immovable property as well as real estate management and facility management back on the agenda and on stage. Starting with the defensive wall like the before mentioned topic of the epic of Gilgamesh.

From movable housing to property

Subsequently real estate became the determining factor for the design and organization of the environment and way of life. In line with the disappearing need to be constantly mobile, the housing situation shifted from moveable, personal estate matter to property. Eventually there were almost entirely self-sufficient local communities, each situated on a private fixed location, without significant mobility. The first real estate-adage made its appearance: 'location – location – location'!

The settlement in permanent residences, the need for a safe place and the pull-effect of employment opportunities resulted in concentration of activities. Many people moved from the immediate vicinity to those safer residences. Those places were further densified and extended. The development of these local communities went crescendo. The growth of local societies exceeded the production capacity of the available area. So the problem of the former hunter-collectors arose again. This brought the mobility topic back on the table, but in a different way. Due to the growing prosperity and the development of ever better tools, the need for more appropriate materials and products became palpable, which resulted in a rising trade between local communities, each with other production possibilities and acquired qualities.

These differences determined the further development of the trade between these locals. The growing trade could cover the ever growing food requirements that resulted from the concentration of people. Although the immediate vicinity was no longer sufficient to provide enough revenues within the self-sustaining system, additional revenues could come from other areas due to the mobility of subcontractors. The mobility of individuals made it possible to stay immobile as a community . While the factor labour was spread, the mobility of people connected them into locally active 'business units'.

With that all the need for mobility expanded and mobility-dependent employment increased. The covered distances increased as well, in connection to the extent of increased attractiveness of the expected benefits. All in all a whole world was opened, which was getting bigger, more challenging and more dynamic than locally was ever thought to be possible. But people always felled back to the starting point, the place of residence. The factor labour was attached to it, apart from social life. Mobility became important for being able to survive, but from 'A' to 'B', some characters of the alphabet further if needed, but always falling back on 'A'.

Mobility is here again

Nowadays, after a turbulent long-lasting development period the world can been seen again as 'flat' due to the continuous increased mobility – it shrunk as to the size of a 'village'. One can see constantly the better opportunities of employment that are offered elsewhere , which are coming more and more 'footloose' and disconnected from the formerly fixed anchor point: the home situation 'A', once the place to be for labour. Labour opportunities can now be anywhere. Currently, mobility is accompanied by 'connectivity' without (almost) any location restrictions, as a result of the combination with the 'footloose' availability of all necessary information, when and wherever it is needed.

Both factors 'where' and 'labour' are always linked together, but first that 'where' was the single 'here', the home situation 'A'. Nowadays 'where' is plural because it can be anywhere. At this moment it is especially where necessary, because the factor 'context' brings 'here' and 'there' together. And 'there' is usually more stringent than 'here'. So labour no longer determines 'where' one is raised! The context of 'where' is decisive, as it was from the beginning of the trade. Regarding this issue nothing has changed. Leading is the changing context over time that our communities now are confronted with.

That deployed developments do not erode the importance of real estate, but made the 'where' of that permanent residence 'A' questionable for those involved. What real estate has to offer –functionality, performance, evoking emotions – is still needed. These characteristics eternally apply, in order to facilitate human needs! What is no longer necessary is the lasting connection with one allotted 'A' location. That is, seen from the perspective of users-needs. Properties by definition continue to be fixed and real. But the users, that is another matter.

Thus mobility has grown to a first level of 100 %, then reduced to almost 0 %, after that it increased again to the enormous dynamism of today. The tipi comes not back yet, but the first real estate adage, 'location – location – location', will be under review again and be replaced by 'context – context – context'. Not place bounded anymore! It is no longer the combination of location and properties that attract the users. According to the current time spirit the context of the location has to fit with the needs of potential users, in a period that is convenient to them, and has to be congruent with the specified functionality, performance, and emotions. In a sufficiently competitive market the users can make their own decisions. The factor 'labour' still determines 'where', but to be seen as 'there for that moment' – which can quickly vary over time.

The real estate market will be turned upside down by these developments. It is still a matter for those potential users to obtain the right of disposal over the required, or desired property. Those potential users have no tipi and do not want either. They do not wish to compromise on the quality level of the property – on the contrary: they will be more demanding. They want to dictate the 'how – what – where' themselves but do not have that to their disposal. For that reason it is necessary to get an accepted balance between the interests of the investors and suppliers such as the landlords on the one hand and the users/tenants on the other hand. The

arbitrariness of the instantaneous need of people wanting a certain triad 'how – what – where' will be no basis for agreement. That is too volatile, uncertain, heel-on-the-branch-jumpy. Real estate is too capital intensive. It is not a tipi!

The hugely increasing dynamics of free swarming all over the world will not be restrained, thus that development will have to be led along certain courts: serving the users, but professionally organized by real estate-, facility- and hospitality management. For real free birds there is no serious market anymore, other than the 'shared economy'. The 'how' and 'what' can be met by a wide range of facilities and services to be delivered, if desired to be completed through additional services. But the 'where' is the key factor, because it is connected to the 'context', which is the essential point to more and more users.

Similarities with the aviation industry

In this context, a comparison can be made with the developments in the aviation industry. All airlines became free from their original, own, fixed location 'A', forced by the very high cost level and very competitive market in which they operate. Currently they function only as airlines, within an international network of airlines. And with a focus on location and cost control in connection to customer-friendliness. They try to be competitive by 'A', 'B', 'C' etc. airports that are equipped with all required amenities, according to clear performance specifications . Using the combined possibilities from the real estate, facility and hospitality market, modern airlines collectively built up international airports network with fully equipped departure and landing modes, for which disposition rights are acquired. With those rights they also acquire licenses, in favour of their clients, for the different onward connections with their network partners and other flying and transport companies, to opening up of the hinterland. Those companies have, in turn, again a network structure. It's all about the offering of increasingly finer-grained networks, with which everyone's 'how – what – where' can be met.

Compared to 'A', those airports are not anywhere situated as 'B', or what other next letter in the alphabet: the choice of the location is determined within a tightly regulated offer range. For the right of disposal should not only be paid and it is not only necessary to line up the business operations to the specifications and restrictions of the relevant airports, but there must also be returned anything of value to the functioning of the entire system of networks! The national 'A' locations are set up as international 'A' locations, within an international investment portfolio built up of collaborating real estate-investment institutions and management organizations. This is in line with co-partnership and 'shared economy' constructions. This development therefore highly demands on integral management. The valuation of the real estate should be aligned with this integrated approach.

This aviation development is expected to take place on the real estate market in about a similar way. The 'how' of the relationship is determined by the context of the local network of the 'community'. The property providers are part of it, through the related real estate management, and can influence this relationship. In such a competitive market the 'what' of properties must exceed the expectations: it has to be positioned on an augmented level. Customers are highly demanding but will be aware of the great benefits of this change and be willing to pay, just like airlines are willing to pay a high price for landing rights and the granted services.

A new Kondratieff-wave

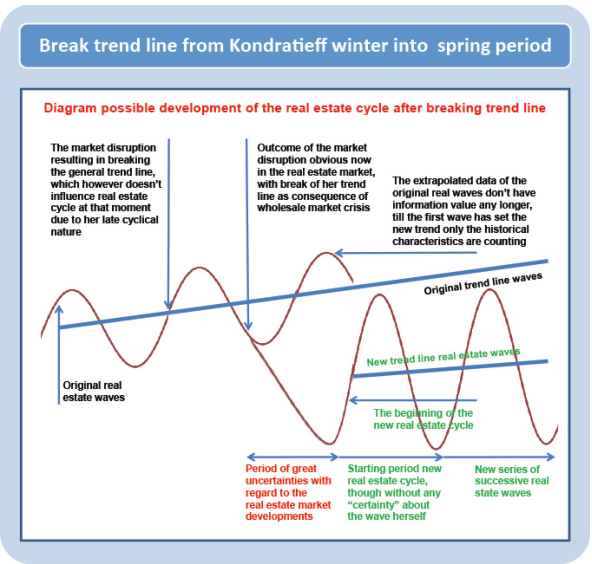
The just started Kondratieff-spring period will outline this future expectation. For the real estate market its effects will be great! Real estate's value is not stable and certainly not in and after a trend break with the current situation. The new Kondratieff-wave will be based on these new developments and will ask for real estate and facilities offerings in tune with their particular circumstances and characteristics. An important part of the current property market stock will not be able to meet and a major part of that real estate market part will not be adaptable to fit to it either. This will result in even more devaluation of market and book values than already has taken place during the Kondratieff winter period!

The current transitional period will be full of uncertainties for a number of years and will finally result in a significantly

different real estate market in terms of demand. There will be a new cycle according to the new dynamics in the market. This new cycle is distinctive from the previous one regarding its wavelength, amplitude and trend line. In this situation one cannot make use of historical data. But there is no substantial difference in terms of general real estate characteristics and the creation of an image that is borrowed from the past. However, the new imaging should be placed within the new context, so transformed to that new reality – and not retrieved from the old one!

Impact on real estate

Similar to the airports, due to those changes the properties will come into the hands of real estate-investment institutions, which are operating inside international networks worldwide in order to facilitate their customers, at whatever wanted location. The required services will be provided by these real estate investment institutions themselves and their partners-in-business within their networks. Depending on the success of these international networks, it is expected that the profitability of investment properties will not change substantially. As always supply and demand are brought in line in the market, on the basis of the allocated 'marginal utility' and – for that new market – market-based return/risk profile. However, it will have a major impact on the functioning of real estate management incorporate, public or rental businesses. Corporate real estate management is expected to be quickly becoming integrated with facility and hospitality management: 'Integral Assets, Facilities & Experience Management', IAFE. Like international portfolio management it will affect both the customers and the shareholders and other stakeholders. The customer relationship always gets more of a 'time shared, short stay' character, that connects to that hospitality sector. Within hotel chains this is already usual. An international network will support the rental of premises for 'customer relation' management, including the 'customer loyalty' programmes.



Consequences of the break in the trend line from Kondratieff winter into spring period

Sure, it's still not that far. There is still sufficient time for reflection on the quality of the relevant real estate. But, as always, consider the overreaction of the market, when such a development is widely penetrating in the market.

Notes

[1] Brown, G.R. and Matysiak, G.A. (2000) Real Estate Investment, A Capital Market Approach, Financial Time – Prentice Hall, page 10.

Prof. Ir. Willem Keeris was trained as architect, but had his career in property construction and development, real estate consultancy, and investments. He is prof. em. of Real Estate Management & Development at the Eindhoven University of Technology and the Tilburg University. He was also visiting professor at the Department of Management in the Built Environment, Faculty of Architecture TU Delft.



Hans de Jonge sailing at the sea

How valuation sneaked into Real Estate & Housing

Aart Hordijk

As I may recall the first time Hans de Jonge and I met each other was at the beginning of the nineties at ROZ[1] offices, at that time directed by Paul Vismans. Hans was employed by the Governmental Building Agency RGD and the reason we met was the attempt to include the government buildings in the ROZ/IPD[2] Real Estate Index (the Netherlands Annual Property Index) that at that time was in the development stage. Unfortunately that attempt failed and each of us went his own way. Hans was busy at the Real Estate & Housing Department and in commercial business. I still remember that as director of a development company Hans took care of the Starke Diekstra company after the director passed away. Regularly our paths crossed at conferences, most of the time with Hans as moderator and myself as speaker or panellist.

As of the year 2000 I started my scientific career at the University of Amsterdam for 1 day a week, sponsored by the STROW[3] foundation, which is part of Troostwijk Valuations. The sponsorship was for five years only and the assignment was to introduce and develop valuation courses at academic level and to complete my PhD within that timeframe. The valuation course became an important part of the master study Real Estate and Finance, adding up to 25% of the course, including 14 days of 3 hours lecture and case studies. From the start the



The combination of applied theory and case studies with feedback from practitioners who did the valuations themselves appeal to the students.

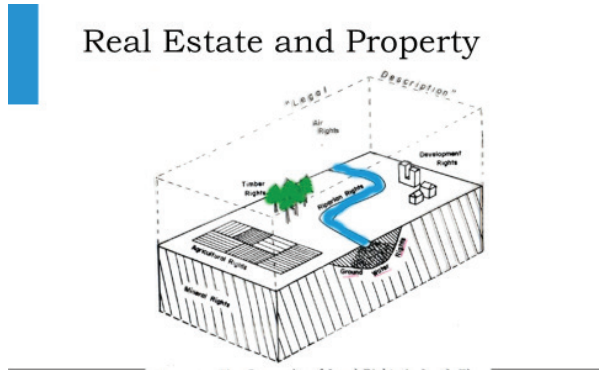
valuation course became a success: the combination of applied theory and case studies with feedback from practitioners who did the valuations themselves appealed to the students. The popularity of the course spread also outside the University of Amsterdam and already in the second year of the course students from TU Delft followed the course in high numbers. For this reason it was decided to introduce the valuation course in the RE&H curriculum. Starting with 11 students, at the top 67 students followed

the course, mainly because a high number of students from TU Eindhoven followed the valuation course as well. Because of that it was decided that the valuation course was introduced at TU Eindhoven as well with numbers up to 40 students per course, similar to the average at TU Delft.

My 1 day (later ½ day) assignment per week at RE&H restricted my contribution to the department to a modest one and Hans and I didn't see each other that much. Besides the valuation course, I also contributed to Corporate Real Estate Management (CREM) and Financial Management. Together with Hans I acted as co-promotor of the PhD of Jo Soeter, who unfortunately passed away much too early. We also presented the value of CREM to an audience of accountants of the major Multinationals at the Employers office to make them aware of the subject.

Outside RE&H we occasionally met when necessary or about an urgent matter, most of the time at Hans' office at the Brink Group and very early. Although I am an early riser as well, his time schedule is very hard to beat. The rumour was that Hans always gets up at 4 am and indeed once we had a sms-conversation at 4:30 in the morning.

Hans, I always admired the way you worked with great devotion to the job. It looked as if you were never tired. The comparison can be made with Cyril Fijnaut, the former professor Criminology at the University of Tilburg, who had the same mentality. At his farewell lecture the Rector Magnificus said : "according to



Slide from one of my lectures to illustrate the difference between real estate (the physical appearance) and property (the different property rights), which was in most cases an eye opener for the students.

Cyril Fijnaut sleeping is a matter of choice". I sincerely hope that from now on you gradually will slow down and that you will be able to devote more time to Alexandra and your family. Your well-deserved sabbatical a few years ago was already a taste of what can be in store for you.

Enjoy the time which will become available for you and your hobby's which might have long been neglected.

Dear Hans, I hardly can believe that you will stop working completely. However, there should become more time available for your probably neglected hobbies.

Notes

[1] ROZ: Raad voor Onroerende Zaken (Real Estate Council)

[2] IPD: Investment Property Databank

[3] STROW : Stichting Troostwijk Onderwijs en Wetenschap (Troostwijk Foundation Education & Science).

Prof. Dr. Ir. Aart Hordijk is prof. em. at Tilburg University and a former visiting professor at the Department of Management in the Built Environment, Faculty of Architecture TU Delft



Just before retirement Hans stated a long cherished wish to start to sculpture.



One of the places that has a special meaning for me: Delft Scheepmakerij

Wondering as the principle by which things get their meaning

Peter Paul van Loon

Wondering is one of the basic principles of a search for the connection between the mechanism of thinking in values and mechanism in acting with values. Both are crucial in the logic of human feelings and human interactions occurring in inter-actor design processes.

After our master studies in England, between '75 - '76, Hans de Jonge in Cambridge for Land Use and Built Form Studies and me in Birmingham for Urban Science Studies, we had a language system in our hands - the logical formal systems approach - for developing design methods that could be applied by large teams of architects and urban designers to jointly design valuable spatial solutions. It was at that time that Erik Berkhout put forward the integration of valuable signifying think and invent with valuable meaning-creating act and do as the central element in these methods. This integration is merely based on the combination of a hard quantitative systems approach with a soft qualitative systems approach represented in mathematical design-decision models.

In the years thereafter we occasionally came together until 1991. Then there was a compelling scientific cooperation. First for my PhD thesis, and then as colleagues in the



The integration in design processes of giving meaning, seen as human judgement and making sense, as human creation, is the crucial issue.

Department of Real Estate & Project Management. In cooperation with Lex van Gunsteren, Peter Barendse and Rein de Graaf we carefully explored and defined, tangents and connections between our design approaches. The integration in design processes of giving meaning, seen as human judgement and making sense, as human creation, was the crucial issue. Measuring the group meaning (or measuring the group optimum as it is called in the decision making theory)

therein was and is still our central point of view. In my PhD thesis (11 May 1998) I quite resolved this issue methodologically. But there was still an important dimension missing: the value people give to things and to events. In architecture this is referred to as the performance qualities that can be achieved using the building. In urban planning this is referred to as the spatial qualities that can be experienced living in urban areas.

In the period 2004-2010, I nevertheless succeeded, along with Ruud Binnekamp and Jonathan Barzilai, to integrate giving meaning (value) with creating meaning (value) in an inter actor design methodology. We could do so after a study of preference measurement on utility, quality, choice and decision, related to the philosophy of the enlightenment and the free secular creative thinking as a natural human phenomenon without a metaphysical soul.With this, a third position takes shape in the architectural and urban design discourse, a position between the autonomous architectural design approaches and the rational problem solving methodologies of engineers. In the philosophy of science it is a difficult position. But we are brave, and stand both on this position of the logic of feeling and we will to continue with balancing between the appeal of the autonomous creative architects performance and methodical safeties of the social science research

Peter Paul van Loon is a former PhD candidate of Hans de Jonge and Em. Associate professor in Design Systems at the Department of Management in the Built Environment, Faculty of Architecture, TU Delft



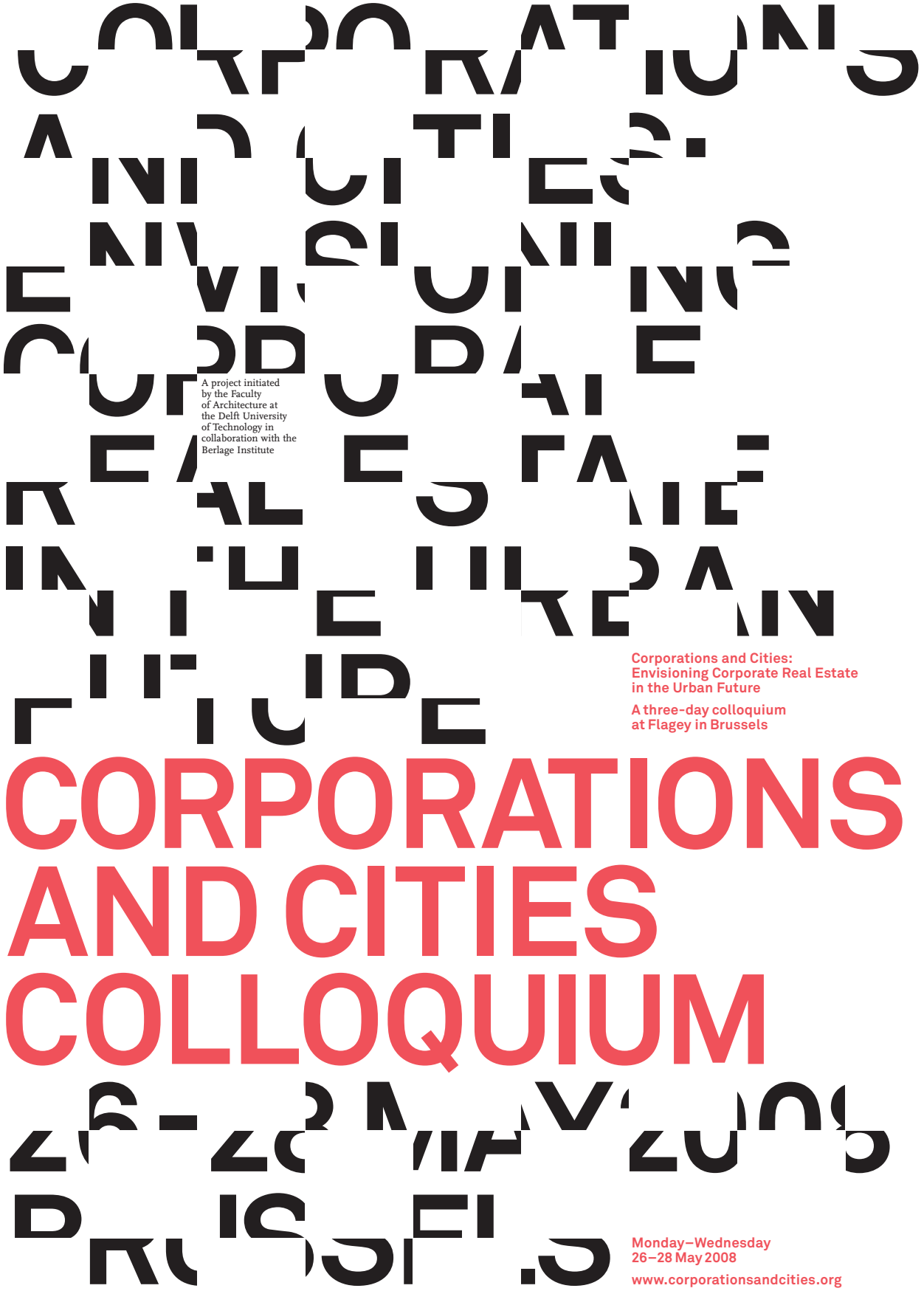
Receiving my doctoral degree certificate on May 11, 1998



2007



Corporations & Cities



A project initiated by the Faculty of Architecture at the Delft University of Technology in collaboration with the Berlage Institute

Corporations and Cities:
Envisioning Corporate Real Estate in the Urban Future

A three-day colloquium at Flagey in Brussels

CORPORATIONS AND CITIES COLLOQUIUM

Monday–Wednesday
26–28 May 2008

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Corporations and cities

Herman Vande Putte

User – context – portfolio

To well explain the aim and relevance of the *Corporations and Cities* research project, three premises of Hans de Jonge should be explained first. For Hans, nothing else than the user can be central in the design and management of the built environment. Users are all who aim to shelter, organise and represent their activities and values through the built environment and those who are influenced by the execution of this aim. For Hans, users are a thousand things more than 'the cause of the revenue stream through their occupation of real estate' (Heywood & Kenley, 2010, p. 381). Management sciences consider users a stakeholder subcategory.

A second premise in Hans' approach of the built environment is its contextuality. As Jacob Fokkema stated in his opening phrase to the renowned book *Ways to study and research urban, architectural and technical design* in 2002: 'Within the range of a technical university the object of design – in terms of (urban) architecture and technique – is the design subject that is amongst all others most sensitive to context' (Fokkema, 2002, p. 7). This context is physical and spatial, and it is historical and cultural as well, as Hans liked to stress in his introductory lectures to many generations of students in Delft and abroad. And, to make it more complicated, the real estate object will become part of this context and witness there about the particular circumstances of its genesis, for the good or the bad.



'It is vital for the city that the relationship between the public and the private interest remains a tension. Architecture is the agency between these two forces.' (Aureli, 2008)

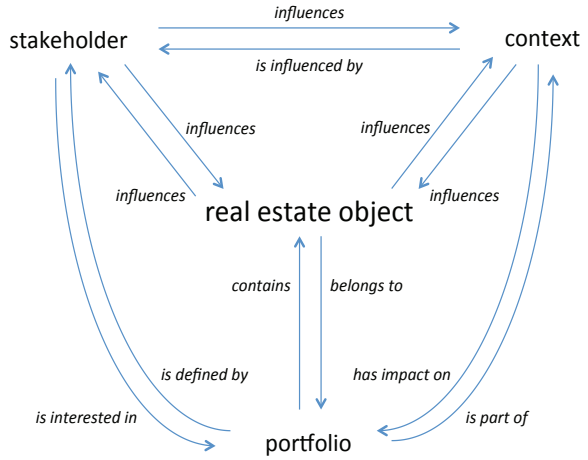
The portfolio is the third concept Hans introduced in the thinking about real estate. Stakeholders group real estate objects following their interests and therefore use criteria such as tenure, use, ownership, location, style, size, construction period, etc. They then manage these portfolios to advance their interests – to add value.

What happens when a self-centric user creates his shelter amidst a valuable spatial collection of other shelters…?

Corporations and Cities

The three concepts came together in a research project that was given birth in 2004 during the trip of our department to Milano and Torino. Hans and I stood on the roof terrace of the Pirelli RE headquarter building in Milano and saw how the former Pirelli factory site Bicocca was gradually transformed into a new and lively urban area. We were impressed by the impact of Pirelli's accommodation decisions on the shaping of the city of Milano and wanted to know more about it. We decided there and then to start studying the interaction of corporate decisions and city development. It became a fascinating journey to twine discourses that seldom meet voluntary. In 2005 Bram van Beek was the first student who graduated on the subject with an analysis of the decision paths in the sale or redevelopment decision for redundant production plants and how these paths were influenced by corporate culture and urban context.

Independently, in 2004-2005, the Berlage Institute launched a research project called *Brussels Capital of Europe* that was triggered by the problematic relations between the large-scale premises of the European Commission headquarters and the historical urban fabric in Brussels (Borra, 2006). This matched the three perspectives of Hans and led to a collaboration wherein the case of the European Commission's accommodation in Brussels was made subject of the real estate management master course and graduation lab within our department.



Three concepts in real estate thinking of Hans de Jonge and their interrelationship



Pier Vittorio Aureli at the Corporations and Cities colloquium held in Brussels in 2008

In May 2008, just a few days after a fire had destroyed our faculty building at the Berlageweg, our department organised a conference in Brussels in collaboration with the Berlage Institute. It was this conference that introduced the title *Corporations and Cities*. The conference aimed at broadening the reflection, and researched more in general how the accommodation of large scale organisations influences the structure and liveability of cities, and how, the other way around, the vision and policies of urban planners have a direct impact on the functioning of large corporations. By contrasting the logic of corporate managers and city developers, the private and the public forces that constitute the city, it was expected that symbiotic strategies could be envisioned.

On the conference the director of the Berlage Institute, Rob Docter, recalled how the 2004 research on *Brussels Capital of Europe* (Borra, 2006), shown in 2007 in the exhibition *A Vision for Brussels* at Bozar (Aureli & Bouvier, 2007), had revealed new urban strategies that use spatial opportunities in the city fabric to improve the spatial

logic of the European administration offices. He referred to the Insitute's contribution to the 2007 International Architecture Biennale Rotterdam entitled Visionary Power – Producing the Contemporary City that studied the phenomenon of the so-called 'corporate cities' and showed to which qualities visionary power can lead (De Baan, Declerck, & Patteeuw, 2007). Docter observes that large scale organisations often behave as gated and self-supporting communities within the urban environment, but that they in fact highly depend on the level of education, cultural life, local economy and image that urban environments provide.

Siim Kallas, the European Commissioner in charge of the accommodation of the European Institutions, presented the approaches of the European Commission for their accommodation in Brussels (Kallas, 2008). He agreed that the lack of vision and decision power of the EC caused the decay in the Leopold Quarter and mentioned some objective procedural reasons for it. He stated that EC wants its former reactivity replaced by control of the future through long term planning of its space needs, improvement of the competition between suppliers and rationalisation of the decision making processes. Its future accommodation should be of a higher architectural quality, efficient, and make a statement about the presence of the commission in the city. It should be located in mixed use areas with offices, residential and retail spaces. There should be high quality social infrastructures in the city like European schools, nurseries and after school facilities. And, not at least, the EC's accommodation should be carbon neutral, which entails the use of sustainable materials, proximity of public transport and an overall energy efficiency.

For Pier Vittorio Aureli, architect and educator at the Berlage Institute, the study of the relation between corporate accommodation and urban form is the study of the relation between economy and politics (Aureli, 2008). 'Economy, that comes from the Greek word "oikos", refers to the realm of the house, the reproduction, the forces that materially make the city. Politics is the opposite. It is the public aspect of the city, the "polis", where people are not expected to reproduce but to interact.' The division between economy and politics started to blur in the middle ages, when production and trade grew in importance. But for Aureli 'the public and the private interest can't mix without any problematizing. It is even vital for the city that the relationship between both remains a tension. Architecture is the in-between, the agency, between these two opposite forces. To design a city is precisely to give form to this conflict'. For Aureli, this is represented in an extraordinary way in the work of the 16th century Italian architect Andrea Palladio and that of the 20th century German architect Ludwig Mies van der Rohe. Their work is mostly seen within the aura of pure and public architecture but for Aureli many of their realisations are extreme cases of corporate architecture. 'Through their persistence and consistent contribution to private commissions paradoxically they developed very successful forms of public representations within the city.'

Refining concepts

These three presentations, taken from the first morning of the Brussels conference, give an impression of the spectrum that *Corporations and Cities* intends to cover and of the work to be done to develop an integrated theory about it.

The presentations use the term 'city' in several meanings: *polis*, which is the political arena, *civitas*, which is the community, and *urbs*, which is the physical infrastructure that materially supports this community. *Urbs* responds to the requirements of *civitas* in the ways *polis* allows for it. All three meanings of 'city' may act as the context of a corporation's accommodation. *Polis* and *civitas* are the stakeholders of *urbs* and can act as stakeholders of the corporation's accommodation. *Polis* is studied in the political sciences, *civitas* in the sociological sciences and *urbs* in the discipline of urbanism. In the study of urban development management the three meanings come together.

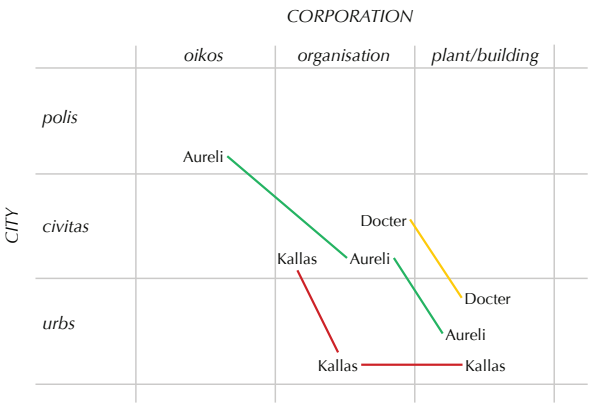
'Corporation' is used in several meanings as well: *oikos*, which is the economic and private force, organisation, which is the grouping of people or the firm, and accommodation, which is the plant or building wherein the organisation is located. Both *oikos* and the organisation can act as a user – or stakeholder – of the corporate accommodation. *Oikos* is studied in the economic sciences, organisation in management sciences and plant or building in architecture.

The above fully reflects the premises of Hans. The *Corporations and Cities* researchers' interest is naturally situated in the formal and functional interaction of *urbs* and plant/building. The presentations at the 2008 conference showed that this approach should be widened to more stakeholders and contexts, as Hans predicted.

Other approaches to the domain of *Corporations and Cities* become clearer when placed in the above grid as well.

The typo-morphological urban research, conducted in the 1960's by Muratori (1960, 1963) and Aymonino in Italy and in the 1970's by Panerai and Castex in France (Panerai, Castex, Depaule, & Samuels, 2004 (1977)), linked the research on urban morphology with the research on building typologies in order to study the reciprocal relationship between the shape of the city and the architectural object, and define patterns for this interaction. This research prepared the path for the theories of Aldo Rossi on the architecture of the city and the analogical city (Rossi, 2002 (1966)). The recent doctoral thesis of Gramsbergen (2014) uses this perspective to study the relation between corporate accommodation and cities. Gramsbergen describes the spatial transformations of the urban fabric of Amsterdam under the influence of the accommodation of large urban institutions between 1580-1880. She identifies two major mechanisms of interaction between corporate accommodation and the city fabric: the attraction and repulsion between particular functions at a location – a topic that was researched by Singh in 2010 –, and the path dependency of design decisions.

Location studies, as conducted by Rabianski, engage with the impact of corporate location decisions on all aspects of a community and vice versa (Rabianski, DeLisle, & Carn, 2001, p. 175). Den Heijer studied the mutual influence on location factors for innovative initiatives at universities (Den Heijer, De Vries, & De



The matrix crosses the three meanings of corporation with the three meanings of city and positions the three lectures' approaches in it.

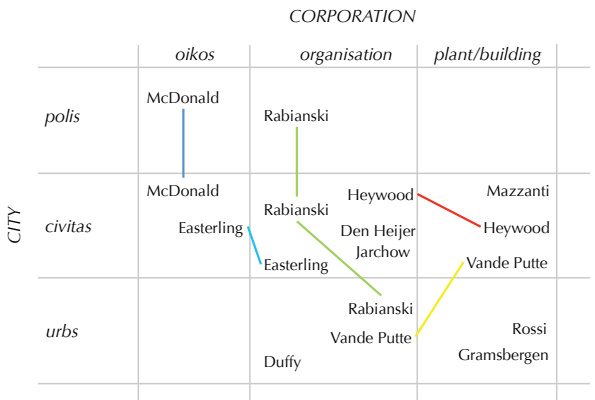
Jonge, 2012). Urban economics, as a discipline, studies the economies that are organised as urban areas, which are subunits of the national economy (McDonald & McMillan, 2007).

That the interaction between the public realm and any real estate object is obvious, was already mentioned by Graaskamp in the 1970's in his argumentation for the interdisciplinary position of real estate education. As services flow from the public infrastructure to the real estate object, taxes flow towards the public community to compensate for these services (Graaskamp, 1977). Heywood & Kenley (2013), when defining five axioms for corporate real estate research, retain public infrastructure as one of the five roles of it. 'For the public the property's value are its externalities. […] Those effects can be seen in both the physical and social milieus where creating and operating a property affects its surroundings. […] This places corporate real estate as both a stage for and a modifier of social interaction' (p. 6). For architect Mazzanti, in his guest lecture at our faculty in 2014, architecture is definitely a mechanism to build community (Mazzanti & Schenk, 2014).

In 2008 I described a major incompatibility between corporate logic and urbanity (Vande Putte, 2008, 2009). Case studies revealed that when large organisations accommodate in inner-cities, their monoculture, introversion and self-centrism tend to destroy the diversity of existing urban fabrics, from which these recover slowly. Conversely, when organisations create urban environments – see the ambitions of Schiphol Airport, major shopping malls and hospitals – the need for control, uniformity and compatible information, posed naturally

by these organizations, creates a "special stupidity" (Easterling, 2007, p. 84) that operates as an obstacle to the formation of contradiction, complexity and diversity that define urbanity (Boomkens, 2002; Gadet, 1999; Laermans, 1999; Loeckx, 1999; Reijndorp & Hajer, 2001; Worthington, 2008)

Duffy pointed to the erosion of corporate territory (Duffy, 2008). The city in its meaning of 'urbs' becomes the new workplace. He sees knowledge workers breaking out of the office buildings and spreading over found workplaces all over the city external to corporate locations. Corporate private area has become virtual.



The same matrix wherein other approaches to the domain of Corporations and Cities have been positioned. The typo-morphological research is at the bottom-right, urban economics at the top- left.

Scale level	Stakeholder	Requirement
global	population	sustainability of material choice
continent		
country	government	health & safety
portfolio	organisation	productivity
region		
city		
area/site		
building		
room		
workplace	employee	comfort

The program of requirements for a workplace stems from many stakeholders with interests at different scale levels

The debate on *Corporations and Cities* takes place at all scale levels: the (inter) national and regional level, the urban fabric, the zone or campus, the plot, the characteristics of the buildings, the building's use, etc. Even a single workplace in an office building has a program of requirements that stems from very different scale levels of decision making with stakeholders for each level. The workplace user wants comfort. The company wants productivity. The national authorities want health & safety to cut on care. And at a global level there is an agenda of sustainability, which is reflected in the material use of the workplace. Multi-level governance settles gradually for what was once a private affair, as is stated by Hans, and this happens with all aspects of corporate accommodation.

The most difficult stakeholder to represent in the decision making, one to which Hans refers time after time, is the future user of the built environment. Hans' plead for the historical perspective of real estate aims mainly at the future usability of current designs. Adaptive reuse is a proven strategy to cope with this issue (Wilkinson, Remøy, & Langston, 2014) and seems to be fostered by a looser response to intervention requirements, of which the specificity is growing over time. And, as stated by Aureli (2008), this looseness is also the productive counterweight to the quest for maximising the match of real estate supply with demand and of the match of corporate with urban goals (Den Heijer et al., 2012; Heywood, 2011; Osgood Jr, 2004).

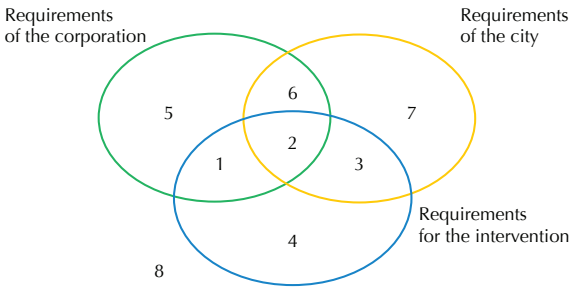
Intervention design research

A third way to look at the subjects deepened by *Corporations and Cities*, is from the role of the designer of an intervention and the origin of the program of requirements he uses for this intervention. Part of these requirements are compulsory because they are contained in legislation.

The requirements that are taken into account for a design (blue ellipse) consist of four categories: (1) requirements that belong to the corporation only – e.g. the need for a certain amount of usable area; (2) requirements that belong to both corporation and city – e.g. the need for social security around the building; (3) requirements that belong to the city only - e.g. the requirement for a retail plinth; (4) requirements that do not belong to one of these two – e.g. consistency in the designers work to create an oeuvre.

The requirements that are not taken into account for the intervention consist of four categories as well: (5) requirements that belong to the corporation only – e.g. requirements that conflict with the applicable legislation; (6) requirements that belong to both corporation and city – e.g. common requirements that are technically unfeasible; (7) requirements that belong to the city only – e.g. requirement for a public access of the roof terraces of a new building that conflicts with the corporation's security policy; (8) requirements that do not belong to one of the above categories, the rest category.

Corporations and Cities' intervention design research should obviously pay attention to the influence of the context and may be advanced by zooming in on the fourth category, the requirements that are used for the design although not expressed by the commissioner nor the context. This is the place where the talented designer responds to tacit requirements and adds his personal view. Aureli calls this the place of architecture (2008). Aureli marked how Andrea Palladio and Mies van der Rohe captured the tension between their corporate commissioner and the city, and staged it through the use of shapes that root in public architecture, such as the pediment and the pallazo that were used by Palladio, and the plinth, the public square and the open lobby used by van der Rohe. What is admired in their architecture is how they put the tension to work instead of removing or neglecting it.



The requirements of the commissioner (the corporation) and the context (the city) in relation to the requirements that are taken into account for an intervention

Research posts

The attention paid to the *Corporations and Cities* research project, although at the heart of (corporate) real estate management, changed over the years. Unintentionally it was the major subject of the architecture competition for the new faculty building in 2008 and the related exhibition organised in Rotterdam in 2009. The entrants envisioned interactions between the faculty and its environment that ranged from total isolation of the faculty and the city over footlooseness up to total absorption of the faculty's accommodation in the urban fabric (TU Delft - Faculty of Architecture, 2009).

In 2009 and 2010 I published a series of 11 articles that reported on the Brussels conference (Vande Putte, 2009-2010). In the aftermath of the conference, I inventoried, in collaboration with the Urbanism department of the faculty, the attitudes of urban planners towards corporate accommodation together with the reasons to consider corporate accommodation a separate category in urban planning. For some time the 2008 *Corporations and Cities* conference was envisaged to become a dataset for my PHD research on accommodation strategy implementability, but the topic proved too complex for a single researcher, and the analysis will be continued at a later stage.

Corporations and Cities became a popular graduation subject for master students of our department:

- The research into strategies that cope with redundant real estate, launched immediately after the trip to Milano and Torino, resulted in the thesis of van Beek (2005) mentioned above, and was continued with the work of Verbeek (2006) who analysed the redundant real estate removal processes and Boudewijns (2006)

who inventoried marketing techniques for real estate repositioning.

- On the location issue, there was a research into the reasons for Benelux headquarters to locate in Breda (Dekker, 2011), location strategies of audio-visual companies compelled by the network society (Bissumbhar, 2011), and the consequences of e-commerce on fashion retail location preferences (Hoes, 2012).
- Related to business parks and corporate zones, there was research into the added value of clustering life sciences in the Leiden Bio Science Park (Van den Bergh, 2005), the spatial characteristics of office zones (Annali, 2010), the knowledge flow generated by microphysical proximity in research parks (Visscher, 2011), and the redevelopment of the special economic zone of Batam affected by the global economic crisis (Nita, 2013).
- On the theme of agglomeration mechanisms, there was the seminal thesis of Singh (2010) on demand drivers for clustering and dispersal of functions across geographical areas, the thesis of van Vuurde (2012) on instruments to steer on the agglomeration of firms and households, and the thesis of Pors (2013) on the effects of such steering instruments on large scale corporations in The Hague.
- In depth cases on the interaction of corporate real estate and urban areas were executed by Reijnen (2010) who studied the European Quarter in Brussels, Kouwenberg (2012) who analysed the growth of the city of the Hague and the role of large corporations in this, Georgiadou (2012) who analysed the history of the accommodation of BNP Paribas in Paris, Schuddebeurs (2013) who did the same for the Nationale Nederlanden in The Hague, and Scheuermann (2014) who did it for Siemens in The Hague.

Corporations and Cities research is cognate to the research on university campus design and management (Arkesteijn & Den Heijer, 2009; Den Heijer, 2011; Den Heijer & Curvelo Magdaniel, 2012). September 2016 Curvelo Magdaniel has defended her PHD on the way campus strategies of tech-driven organisations align with city development strategies within the context of the knowledge economy (Curvelo Magdaniel, 2016). For Curvelo Magdaniel *Corporations and Cities* is about the alignment of goals of different organisations that may have different reasons to achieve these goals, and it is about the large scale. She states that for these types of organisations and accommodations, the relation with the city is one of mutual dependency, and partnership is a possible way to handle this mutualism.

Conclusion

Corporations and Cities wasn't launched to achieve a particular societal goal. The curiosity to the phenomenon was leading, and this was then supplemented by annoyance at the sometimes shameless behaviour of large organizations when organizing their accommodation in and around cities and the neglect by urban planning and management of the basics of corporate accommodation logic.

The relevance of the research is great. From a scientific point of view, because *Corporations and Cities* is an exercise in describing a concrete praxis through current and new management theories and deepening essential premises on real estate as expressed by Hans de Jonge. From a societal standpoint, since *Corporations and Cities* is an exercise in bringing together the separate worlds of business and property - the private - on the one hand and urban planning and architecture - the public - on the other hand, making acting in this tension more accurate. And let the elimination of engineering error been the main motive for Hans de Jonge to start unravelling the complexity of the built environment and develop the sciences about it.

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Cited literature

Annali, M. (2010). Office site typology. A systematic approach to type construction of office sites based on spatial parameters. (MSc thesis), Delft University of Technology, Delft.

Arkesteijn, M. H., & Den Heijer, A. C. (2009). De campus als een stad. Bouwen Nederlandse universiteiten hun eigen stad of wordt de campus onderdeel van de bestaande stad? Rooilijn, 42(4), 252-259.

Aureli, P. V. (2008). Economy, politics, architecture: two cases of corporate architecture. Corporations and cities: envisioning corporate real estate in the urban future (conference 26-28 May 2008). Brussels: Video recording of the lecture at the conference.

Aureli, P. V., & Bouvier, P. (2007). Brussels - a manifesto: towards the capital of Europe. Rotterdam: NAi Publishers.

Bissumbhar, K. (2011). Location strategies of audiovisual companies compelled by the network society. (MSc thesis), Delft University of Technology, Delft.

Boomkens, R. (2002). Werk in uitvoering. De publieke ruimte in het tijdperk van Big Brother. De Gids, 165(2), 101-117.

Borra, B. (2006). Brussels capital of Europe: urban form, representation, architecture. Rotterdam: Berlage Institute.

Boudewijns, R. (2006). Marketing redundant industrial real estate. Means for positioning redundant corporate real estate on the market. (MSc thesis), Delft University of Technology, Delft.

Curvelo Magdaniel, F. T. J. (2016). Technology campuses and cities. A study on the relation between innovation and the built environment at the urban area level. (PHD thesis), Delft University of Technology, Delft.

De Baan, C., Declerck, J., & Patteeuw, V. (2007). Visionary power. Producing the contemporary city. Rotterdam: NAi Uitgevers.

Dekker, D. (2011). Breda, decent village across the border: reasons for Benelux headquarters to locate in Breda. (MSc thesis), Delft University of Technology, Delft.

Den Heijer, A. C. (2011). Managing the university campus: information to support real estate decisions. (PHD thesis), Delft University of Technology, Delft.

Den Heijer, A. C., & Curvelo Magdaniel, F. T. J. (2012). The university campus as a knowledge city: exploring models and strategic choices. International Journal of Knowledge-Based Development, 3(3), 283-304.

Den Heijer, A. C., De Vries, J., & De Jonge, H. (2012). Developing knowledge cities: towards aligning urban and campus strategies. In M. Van Geenhuizen & P. Nijkamp (Eds.), Creative knowledge cities: myths, visions and realities (pp. 104-131). Cheltenham: Edward Elgar.

Duffy, F. (2008). Work and the city. London: Black Dog Publishing.

Easterling, K. (2007). The corporate city is the zone. In C. De Baan, J. Declerck & V. Patteeuw (Eds.), Visionary power. Producing the contemporary city (pp. 75-85). Rotterdam: NAi Uitgevers.

Fokkema, J. (2002). Preface. In T. M. De Jong & D. J. M. Van der Voordt (Eds.), Ways to study and research urban, architectural and technical design (pp. 7-9). Delft: DUP Science.

Gadet, J. (1999). Publieke ruimte, parochiale plekken en passantenopenbaarheid. Jonge alleenwonende Amsterdammers over stedelijkheid. Amsterdam: Spruyt.

Georgiadou, S. (2012). Corporations & Cities - BNP Paribas & Paris. (MSc thesis), Delft University of Technology, Delft.

Graaskamp, J. (1977). The failures of universities to teach the real estate process as an interdisciplinary art form. In S. P. Jarchow (Ed.), Graaskamp on real estate (pp. 51-67). Washington DC: Urban Land Institute,.

Gramsbergen, E. (2014). Kwartiermakers in Amsterdam: stedelijke instellingen als aanjagers van de ruimtelijke ontwikkeling, 1580-1880. Nijmegen: Vantilt.

Heywood, C. (2011). Approaches to aligning corporate real estate and organisational strategy. Paper presented at the Conference Paper for the European Real Estate Society 17th Annual Conference 2010.

Heywood, C., & Kenley, R. (2010). An integrated consumption-based demand and supply framework for corporate real estate. In Y. Wang, J. Yang, G. Q. P. Shen & J. Wong (Eds.), Proceedings of the 2010 International Conference on Construction and Real Estate Management (pp. 380-385). Brisbane, Australia.

Heywood, C., & Kenley, R. (2013). Five axioms for corporate real estate management: a polemical review of the literature. Paper presented at the Nineteenth Annual Pacific-Rim Real Estate Society Conference, Melbourne, Australia.

Hoes, S. (2012). De gevolgen van e-commerce voor de vraag van kledingwinkels. (MSc thesis), Technische Universiteit Delft, Delft.

Kallas, S. (2008). An introduction to building Europe. Corporations and cities: envisioning corporate real estate in the urban future (conference 26-28 May 2008). Brussels: Video recording of the lecture at the conference.

Kouwenberg, S. (2012). De gevolgen van stedelijke ontwikkelingsstrategieën en bedrijfshuisvestingsstrategieën op Den Haag. (MSc thesis), Technische Universiteit Delft, Delft.

Laermans, R. (1999). De stad als sociaal kunstwerk: een sociologische visie. In B. Raymaekers & A. Van de Putte (Eds.), Lessen voor de 21ste eeuw - deel 5 (pp. 204-221). Leuven: Universitaire Pers/Davidsfonds.

Loeckx, A. (1999). De architectuur van de eenentwintigste-eeuwse stad. Plaatsen voor plaatsloosheid. In B. Raymaekers & A. Van de Putte (Eds.), Lessen voor de 21ste eeuw - deel 5 (pp. 184-203). Leuven: Universitaire Pers/Davidsfonds.

Mazzanti, G., & Schenk, M. (2014). Architecture as mechanism for building community. Delft: TU Delft Library.

McDonald, J. F., & McMillan, D. P. (2007). Urban economics and real estate - theory and policy. Malden, MA: Blackwell Publishing.

Muratori, S. (1960). Studi per una operante storia urbana di Venezia. Rome: Istituto poligrafico della stato.

Muratori, S. (1963). Studi per una operante storia urbana di Roma. Rome: Centro studi di storia urbanistica.

Nita, C. (2013). Next batam: fostering a resilient growth strategy. A combined transit oriented development and industrial clustering strategy, in order to create new investment opportunities and competitive advantages for the city of Batam, a special economic zone affected by the global crisis. (MSc thesis), Delft University of Technology, Delft.

Osgood Jr, R. T. (2004). Translating organisational strategy into real estate action: the strategy alignment model. Journal of Corporate Real Estate, 6(2), 106-117.

Panerai, P., Castex, J., Depaule, J.-C., & Samuels, I. (2004 (1977)). Urban forms: death and life of the urban block. Oxford: Architectural Press.

Pors, L. (2013). De effecten van sturingsmiddelen op bedrijfshuisvestingsgedrag van grootschalige bedrijven in Den Haag. (MSc thesis), Technische Universiteit Delft, Delft.

Rabianski, J. S., DeLisle, J. R., & Carn, N. G. (2001). Corporate real estate site selection: a community-specific information framework. The Journal of Real Estate Research, 22(1/2), 165-197.

Reijndorp, A., & Hajer, M. (2001). Op zoek naar nieuw publiek domein. Rotterdam: NAi Uitgevers.

Reijnen, L. (2010). The European quarter, a future perspective. Spatial interventions from a stakeholder perspective in the European quarter in Brussels. (MSc thesis), Delft University of Technology, Delft.

Rossi, A. (2002 (1966)). De architectuur van de stad. Nijmegen: Sun.

Scheuermann, F. (2014). Corporations and cities - Corporate accommodation of Siemens in The Hague - Synergy and conflict between corporate accommodation strategies and urban planning policies. (MSc thesis), Delft University of Technology, Delft.

Schuddebeurs, P. (2013). Bedrijven en steden - Bedrijfshuisvesting van Nationale Nederlanden in Den Haag. (MSc thesis), Technische Universiteit Delft, Delft.

Singh, R. (2010). Organisations' location choices. The demand drivers for clustering and dispersal of functions across geographical area. (MSc thesis), Delft University of Technology, Delft.

TU Delft - Faculty of Architecture. (2009). Building for Bouwkunde - Open to ideas. Open international ideas competition and think tank. Delft: TU Delft.

Van Beek, B. (2005). The sell-or-redevelop decision: disposal strategies for redundant industrial real esate. (MSc thesis), Delft University of Technology, Delft.

Van den Bergh, A. (2005). Bio Science Park Leiden. Een onderzoek naar de meerwaarde van clustering in de life sciences sector. (MSc thesis), Delft University of Technology, Delft.

Van Vuurde, L. (2012). Understanding agglomeration: a critical appraisal of agglomeration theories from the perspective of Rotterdam's Central District. (MSc thesis), Delft University of Technology, Delft.

Vande Putte, H. (2008). Morphological analysis of Fortis' corporate accommodation strategy in Brussels. In H. Vande Putte & H. de Jonge (Eds.), Corporations and cities: envisioning corporate real estate in the urban future (pp. 160-161). Delft: Publikatiebureau Bouwkunde.

Vande Putte, H. (2009). Corporations and Cities (3). Real Estate Magazine, 64, 43-48.

Vande Putte, H. (2009-2010). Corporations and cities (11 articles). Real Estate Magazine, 62-73.

Verbeek, D. (2006). Overtollig vastgoed: louter productiefactor of strategisch instrument. Een onderzoek naar het afstoten van overtollig vastgoed door industriële ondernemingen. (MSc thesis), Technische Universiteit Delft, Delft.

Visscher, P.-B. (2011). Microphysical proximity and knowledge flow on Bioscience Park Leiden. (MSc thesis), Delft University of Technology, Delft.

Wilkinson, S. J., Remøy, H., & Langston, C. (2014). Sustainable building adaptation: innovations in decision-making. Chichester, England: Wiley-Blackwell.

Worthington, J. (2008). Giving meaning to the experience economy: using urban design to re-establish place in the networked city. In H. Vande Putte & H. De Jonge (Eds.), Corporations and cities: envisioning corporate real estate in the urban future. (pp. 40-48). Delft: Publikatiebureau Bouwkunde.



Maison dans une assiette, 1936 by René Magritte (1898-1967)

"stupidity: The house is a dish hard to digest (hang himself, first; vomit, then, through each window; dress especially as a chamber pot) Prepares itself also as family vault, as fuss."

(Magritte, 1936)

La maison est un plat dur à digérer

Herman Vande Putte

In 1936, René Magritte addressed to his friends Irène Hamoir and Louis Scutenaire a set of a dozen of small drawings. Magritte called them "the problem of the house" and preceded them with a stupidity as a warning. The common and modest houses on the sketches all have an unusual destiny: the first is deposited on the plate of a lonely cover set for dinner and accompanied by a digestive warning. The second is sheltered under a cheese bell, and the others are hidden in the clouds, placed on a track or at the top of the mound of Waterloo.

I used the sketch with the house on the plate to illustrate the cover page of my PHD proposal. The alienation of objects, for which the surrealist Magritte became famous, was going to be my method for a study of the built environment. I saw it my mission to look for a modelling technique that was able to catalyse answers. I couldn't know at that moment how true Magritte's warning is that (a study of) the built environment is hard to digest.

User oriented design

I discovered the thinking of Hans de Jonge during our regular face-to-face meetings (when they weren't cancelled…). I was then sitting in front of a hyper-active practitioner with a huge experience, and a fast and sharp thinker. My conversation partner cherished ambiguity. In general he rejected a theory of truth, but nevertheless he re-opted time after time for a normative approach to strategic management. I guess that



Not choosing for a single paradigm to research the built environment is a fruitful strategy for scanning the domain and to respond to opportunities, but for developing an under-theorised discipline where concept consistency is not yet established, it is the hard and time consuming way.

the descriptive and discursive approaches of Mintzberg c.s. looked too impractical and indecisive to him.

I learned – and fully appreciated – to approach the built environment from the perspective of the user, the current users as well as the future ones. For Hans, the processes into which the commissioner, designers, constructors and facility managers engage should serve the usability of the artefact. We agreed that this usability covers the range from aesthetic experience up to functionality and financial return. Hans

joined the Belgian modernist architect Renaat Braem who flattened the *firmitas, utilitas, venustas* triangle of Vitruvius and considered the beauty of a building useful as well (Braeken & Bertels, 2010).

The adopted perspective on the built environment smoothly absorbed the *dictatum* of sustainability that emerged after the century turn. For Hans architects should design "intelligent ruins", an expression that stems from the first Vlaams Bouwmeester Bob Van Reeth (2003). He states that "we should build now for the future 400 years, with the program of requirements of the commissioner for the oncoming 40 years as an alibi". Hans liked to repeat the observation of Churchill that once erected along our expectations, the built environment conditions our lives: "We shape our buildings, and afterwards our buildings shape us"(Churchill, 28 October 1943). It is part of the condition *humaine* to deal with the – physical and non-physical – creations of the former generations.

Adding value

The translation of the user approach into the research practices happened through the concept of added value, which proved difficult for many. I was alerted when I observed that fellows propagated a list of accommodation strategies that was identical to the added values of corporate accommodation of Hans' lectures (de Jonge, 2003). Recently I managed to capture the concept of added value in a coherent scheme which allowed me to organise the means-end chains of the historical cases of my PhD.

"On the basis of their preferences, all stakeholders adopt a set of organisation aspects, define a target level for each adopted aspect and create a hierarchy within this set. Through negotiation between all stakeholders an organisation-wide hierarchy of all organisation aspects emerges. The actions taken by the organisation change the level of the organisation aspects. From the perspective of a single stakeholder, value is added when the weighted sum of the level changes of his set of aspects is moving into the direction of his weighted target. When the same happens to the weighted sum of the level changes of all organisation aspects, value is added to the entire organisation.
A strategy creates relations between the organisation aspects and gives them a content. This creates a framework for acting."

Over the years I fully internalised Hans' user approach to the built environment. Looking at it, speaking about it and researching it is for me no longer possible without taking this perspective into account. In my PhD this resulted in the search for patterns in corporate accommodation requirements that could serve the strategy designer to check the implementability of his design. This brings me to the second topic that I learned from Hans.

Designerly research

My first PhD proposal was refused by Hans. I aimed for the development of a theory on the basis of a series of cases, but he considered this insufficient. Although we never spoke about it before, Hans wanted me to make a design. This meant that my research had to become a design about a design issue… I was not amused, and even more when I saw that this requirement was not kept with later PhD's.

But, although I never shared this with Hans, it was this refutation that triggered my attention for designing. I discovered an essential debate on the position of the engineering sciences. I learned about the functioning of knowledge in design processes, and unknowingly led the basis for my successful transformation of the final thesis of the Bachelor in which I required all students of the faculty to reflect on the use and the creation of knowledge in the process of their graduation project as well as in the outcome of it.

Hans isn't driven by knowing more about the built environment *an sich* but by making interventions in the built environment more effective. For Hans, knowledge serves the purpose of realising a built environment that better responds to what is expected by all involved. His students, PhD's and staff are supposed to know about the mechanics of the built environment in order to apply them successfully. Hans liked to repeat that "design is decision making in the face of uncertainty with high penalties for error" (Asimov, 1962). How true this is for the built environment, about which so little is known.

To reduce this uncertainty, which is the mission of scientific design, Hans opted for a dispersed research approach. It was my third lesson that this maybe wasn't the most efficient path.

A paradigm portfolio

Hans refused to choose for a single paradigm to research the built environment. This undoubtedly was a fruitful strategy for scanning the domain and to respond to opportunities. It also divided opponents, which is vital for a starter. After 25 years the lack of a systematic approach weighs on the productivity of the researchers. Every PhD is required to develop himself a standpoint from scratch. With a limited amount of peers and for an under-theorised discipline where concept consistency is not yet established, this is hard and time consuming.

I attempted to study the implementability of accommodation strategies through a study of the interaction of corporate settlements and urban development. With the support of Hans I organised the *Corporations and Cities* conference in 2008. The approach was new, relevant and promising – and it still is – but it seemed too hard for a PhD due to the lack of former research to build upon. The collected material waits for my analysis at a later stage.

Still a long way to go

A few months ago a series of posters popped up in the corridors of the faculty and asked for a vote and anonymous comment on the proposition that "a design should take the user into account, y/n". I noticed that all respondents answered negatively. One would say that there still is some work to do for Hans and his staff. But, when contemplating the very position of Hans, I am not sure he would answer the proposition positively without hesitance nor comment. After all, when architects go for the autonomy of architectural design, this sounds like a response to Hans' plead for a built environment that releases the relation with a single program and embraces the requirements of all.

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References

Asimov, M. (1962). Introduction to Design. Englewood Cliffs. New Jersey: Prentice Hall.

Braeken, J., & Bertels, I. (2010). Renaat Braem 1910 2001, architect / Vol. 1. Brussel: ASA.

Churchill, W. (28 October 1943). We shape our buildings, and afterwards our buildings shape us. House of Commons. from http://www.winstonchurchill.org

de Jonge, H. (2003). Inleiding corporate real estate management. Lezing van 15 maart 2003 in UAMS te Antwerpen.

Magritte, R. (1936). The problem of the house - Maison dans une assiette.

Van Reeth, B. (2003). Herinnering aan wat nooit heeft bestaan. Retrieved 28-04-2016, from http://www.bouwenwonen.net



In 2004 I bought the canal house with the plastered façade in the centre of Delft. I didn't know then that this 17th century building along the Oude Delft was the place where Hans de Jonge had lived when he was a student at the Delft University. He had taken the nice room on the first floor, and looked out on the main canal of the city. This room is now my living room where I enjoy the sunrise over Delft, like Hans as an early riser undoubtedly did many times before me.


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Urban Development Management: Past, Present and Future

Ellen van Bueren, Tom Daamen, Yawei Chen, Agnes Franzen, Erwin Heurkens, Fred Hobma & Wouter Jan Verheul

Past: Emergence of A New Field of Research and Education

In the past three decades, 'Area Development' (*gebiedsontwikkeling*) has emerged as a distinct category in Dutch spatial policy and practice, combining language and concepts from urban planning and design, property development, and related professions. Its emergence runs parallel to similar integrative, area-based planning and development efforts that have been observed throughout North-Western European practices since the 1990s (e.g. Dühr et al., 2010). The fundamental motives for these efforts can be found in broad social and economic trends in this part of Europe, such as the changing composition and increasing number of households, the advancing IT and service sectors in cities, the revaluation of and growing demand for urban amenities, and the increased internationalization of and competition between urban regions. These trends triggered formidable growth in urban residential and office markets, and led to high demands for all kinds of infrastructure, amenities and public space inside and between Dutch cities.




"Cities are slow entities" (Steden zijn trage dingen)

Hans de Jonge







In the same period, the Dutch national government increasingly withdrew itself from spatial policy domains. Making spatial policies and plans was increasingly left to lower tiers of government, and the implementation of projects was left to the (semi) private housing and real estate development sectors. By the end of the millennium, the Fourth National Spatial Planning Brief and its addendum known as VINEX thus introduced a more development-oriented type of planning to Dutch practice, one in which large inner-city locations around major (high-speed) train stations and abandoned port-industrial terrains were designated for intensified urban land-use. In the periphery of major urban agglomerations, the Ministry of Spatial Planning & Environment (VROM) also defined specific locations for new residential estates—so-called VINEX locations—with an open invitation to the development sector to realize these estates in partnership with local and regional authorities and housing associations. For the first time since the Second World War, national policy did not concern itself with affordable housing only, but with larger residential programs of which seventy per cent was outside the social regulated sector. The large new residential estates were a considerable challenge for the urban design and engineering industry. The complexity of bringing together infrastructure (public transport, utilities, and IT) with a mix of real estate functions (residential, retail, office) and public space (water, green, recreation) in relatively high densities spawned a demand for novel approaches, design concepts, planning instruments, and—above all—new professional competencies.

Hans de Jonge, with one foot in science and with one foot 'in the mud' of real estate development—and a reflective practitioner by nature—was in the perfect position to understand the implications of the trends and policy changes described above. Dutch urban planning and development practice was in need a new kind of professional: one that combined design competencies with knowledge of building law, real estate finance, as well as both computational and collaborative management skills. Particularly Hans' managerial 'getting things done' perspective on urban planning and development resonated well with the demands of the Dutch professional field. In academia, disciplines like public administration also shifted their orientation from merely the content of urban planning and development policies towards 'how to' implementation question. What emerged was a more nuanced understanding of the design process as the locus of the interaction and negotiation between a variety of stakeholders who tried to pursue and realise their often-conflicting policy objectives and interests.

First achievements

Since the year 2000, a multidisciplinary and (more) collaborative way of working started to take hold of Dutch planning and development practice, with an integration of private development goals and public policy objectives facilitated by sophisticated public-private partnership models. In management terms, the practice of area development spanned across several industrial sectors and policy domains, and concerned itself with processes on multiple levels of institutional and spatial scales. All of this fuelled the complexity of managing area-based projects, which soon came to be understood as a process shaped by formal and informal 'arenas' occupied by actors operating in hierarchical and/or networked structures of decision-making over long periods of time. It became clear that the knowledge and skills necessary to play a 'steering' role in such projects escapes the traditional concepts of 'project management', and that the substantive characteristics of area-based projects asks for more than popular 'process management' competencies (De Bruijn & Ten Heuvelhof, 2012). This led to the first exploratory research projects into the phenomenon of 'integrated area development', which resulted in a few major books and several PhD theses.

The first book of the Urban Area Development (UAD) group within the Real Estate Management chair was titled *Integrale gebiedsontwikkeling – Het stationsgebied 's-Hertogenbosch* (2004). Ineke Bruil, Fred Hobma, Gert Joost Peek and Gerard Wigmans, who also wrote several chapters along with other academic and professional contribution, edited the book. This research project used the railway station area in 's-Hertogenbosch as an exemplary case study of a large-scale, mixed-use, urban redevelopment scheme in The Netherlands led by a professional public-private development agency.

The second book project that consists of contributions of UAD researchers and top professionals from the field resulted in the volume *Management of Urban Development Processes in the Netherlands – Governance, Design and Feasibility* (2011). Hans de Jonge edited this book together with Agnes Franzen, Fred Hobma and Gerard Wigmans. This book was published in the English language, and brought together several useful theoretical concepts and themes often overlooked or treated separately in academia due to the institutional distance between the relevant disciplines and professions.

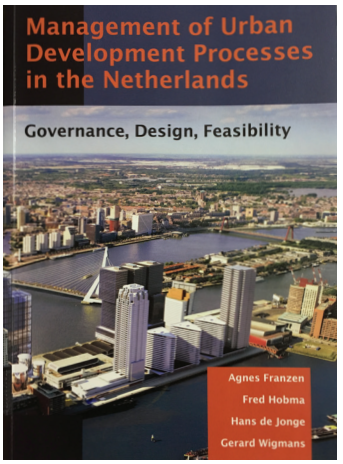
Present: Urban Development Management

The research theme of Urban Area Development (UAD) has recently been refined and established as the domain and chair of Urban Development Management (UDM). Even though UDM is widely understood as a relatively new disciplinary field, the processes the phrase refers to have of course been practiced throughout urban history. UDM concerns the art of managing, of coordinating, guiding and perhaps even directing the decisions of the many stakeholders involved in the development of urban areas towards a high quality outcome: urban places to be enjoyed by all.

Although the Urban Area Development (UAD) group within the Real Estate Management chair delivered insightful pioneering work, Hans de Jonge always kept emphasising the ever-changing demands and challenges of the profession. To Hans, an in-depth understanding of managing urban development processes can best be developed in close interaction between practitioners and scientists: academics feeding practitioners with theoretical insights into the dynamics of multi-stakeholder decision-making processes, and practitioners providing input for the development of new theoretical concepts of these dynamics as well as the role of different instruments and strategies employed by stakeholders to steer the course and outcome of the process.

To support and actively promote the above interaction, Hans de Jonge founded the Area Development Knowledge Foundation (*Stichting Kennis Gebiedsontwikkeling*, SKG) through which different types of area development knowledge products can be created and exchanged amongst expert practitioners and academics. Hans positioned the foundation within the Real Estate & Housing (currently MBE) department, and it has been working at the Dutch research-policy nexus since 2003 very successfully. Currently, the SKG has a firm and unique position in the Dutch spatial planning debate, thanks to the strong team formed by director Agnes Franzen and leading professor Friso de Zeeuw.





Top: Book cover integrale gebiedsontwikkeling het stationgebied 's-Hertogenbosch (2004). Bottom: Book cover management of urban development process: governance, design & feasibility

In professional education, area development gained recognition as a discipline distinct from the existing educational categories of spatial planning and geography. Also in 2003, this brought Hans de Jonge to co-initiate the establishment of the post-experience Master City Developer program, in collaboration with Erasmus University and the City of Rotterdam. The two-year program is currently in its 12th cycle, and has educated over 250 Dutch urban planning, design and property development professionals.

UDM in 4Ps

The UDM group has produced a definition of UDM that accords to 4P's: Product, Place, Person, and Process. The term *Product* refers to the physical outcome of an area-based urban development project, i.e. the real estate, infrastructure, and/or public space that the project seeks to realise. *Place* refers to the geographic situation of a project, often sharply defined in spatial plans, briefs or contracts and signified by a specific history and distinct locational qualities. *Person* relates to the individuals involved in an intervention, acting either for themselves or in behalf of a larger group or organisation (i.e. 'actors'), such as government bodies, real estate developers, investment agencies, businesses, pressure groups, or public-private partners. The decisions and actions of these actors shape the content of an area-based project, and the negotiations between them are conceptualized as an on-going, dynamic, and interactive *Process*.

The UDM research programme aims to design concepts, principles, and instruments that support effective Strategies with Outcomes that produce and promote an urban environment that meets the demands of sustainability and resilience. Within UDM research, these strategies may be understood as the formal policies, plans and contracts that shape the way Actors behave and forge coalitions together for the development of particular urban Areas. However, in recent years, this formal strategy definition has been extended to include the more socio-cultural variables that play an important role in area-based efforts. In the model, the four more general terms of our 4P-definition of UDM have been specified and related more precisely to the work of international academic peers.



UDM in 4Ps

Main research questions in the group focus on the relationship between the concepts depicted in the model, but specific interests such as mega-event strategies (Olympics, World EXPOs), waterfront development, station area development, knowledge cluster development, state-led and private sector-led projects remain. In the coming years, the challenge for the UDM team is to draw together past research findings and align its on-going research efforts along common research themes - themes to which the individual interests and track-records within the group can contribute, and through which a more international academic reputation may be pursued.

Building Law: A Supportive Fundamental

Building law is seen as one of the supportive 'fundamental disciplines' of the department Management in the Built Environment. In this capacity, building law has a strong link with each of the department's core fields: Design and Construction Management, Real Estate Management, Housing Management and Urban Development Management. The founders of the department, including Hans de Jonge, rightly saw that the practice of Urban Development Management utilises many legal instruments. Hence, the education of Urban Development Management also gives attention to both public and private law. Consequently, students are acquainted with customary legal issues like: declarations of intent, partnership agreements, land-use plan procedures, expropriation, land development joint ventures etcetera.

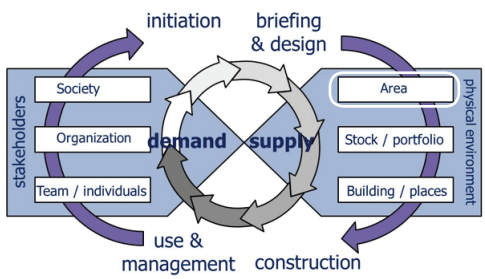
Since the start of area development research, the legal set of instruments in The Netherlands has expanded and refined. Even so, Hans de Jonge always took the stance that both in practice and education, the legal discipline should be subservient to the core discipline of what we now call Urban Development Management. It is in this spirit that legal education and research will continue at the department of Management in the Built Environment.

UDM Education

A number of education programs have been established under the Hans de Jonge's leadership on all levels of academic education (bachelor, master, and post-experience master). The courses all focus on complex urban planning and development assignments and have the aim of equipping students with the skills and knowledge to solve these assignments through interdisciplinary collaboration. The courses progress in practical breadth and theoretical depth according to different learning objectives of the programs and the different levels of knowledge and practice experience of the students.

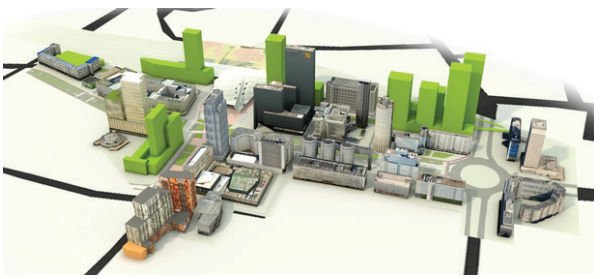
Bachelor program – Urban Redevelopment and Management Game

The 3rd year of the Bachelor program at the Faculty of Architecture contains two simultaneously running courses on planning and development theory (BK6MA3) and application (BK6ON5). Both courses focus on understanding the complexity of planning and managing urban redevelopment projects. By linking relevant societal and economic trends to the practice of urban real estate development and spatial planning, students learn to understand the reasons behind changes, challenges and problems in the built environment. Moreover, students learn to collectively plan a solution for a complex urban redevelopment problem by working in interdisciplinary teams. In a game of role-play, each student is challenged to bring certain knowledge and tools to the table, which are put together in a creative manner to design redevelopment plans.



Real estate management, fit between demand and supply, with the UDM focus on the scale level of areas and cities.

Within the Bachelor courses, Hans de Jonge has been enthusiastically lecturing on Real estate markets and management, and the importance of matching demand and supply. Students are inspired by his ability to explain difficult matters in a clear manner. They also appreciate his knowledge and inside information on urban redevelopment cases like Rotterdam Central District, which brings the subject to life. Hans is famous for his sentence 'keeping all frogs in the wheelbarrow', in which he clearly explains what the toughest challenge was in managing the signing of the Dutch covenant to counteract office vacancies.



Model of Rotterdam Central District.

MSc Program: Urban Redevelopment Game: Integrating Planning, Property Development and Design

In the first year master program, the MBE track concludes with a quarter course that trains students to grasp an integrated approach when managing urban (re) development project. The course *Urban (re)development game: Integrating planning, property development and design* encourages students to address an on-going urban development project with various analytical, technical, and social-political skills as well as knowledge obtained from different fields of expertise.

The course is strongly tuned to the application and integration of knowledge from different disciplinary perspectives, namely real estate, planning, and building law. It includes two components: theory and practicum. The *theoretical component* addresses not only the various perspectives that help to understand the changing 'glocal' context of urban development projects, but also how knowledge and skills from different disciplines are integrated in these projects. The *practicum component* is geared for the application and integration of different concepts and skills taught in this course and in the previous semester. To approach a realistic urban planning and development process, students are asked to draw up an alternative urban development plan for a project currently underway in Dutch practice—e.g. Amsterdam Overhoeks or Delft Railway Station Area Development.

During the course, experts from the practice like municipal organisations, private developers and real estate consultancy companies provide lectures, help the preparation of the module, provide up-to-date information, raise concerns in development vision and current market challenges, but also participate in students' final presentation to judge their final products. In addition, the department student association BOSS organises public lectures given by business leadership and project managers to add extra insight for the complex urban development process.

The urban redevelopment Game was originally developed under Hans' leadership now more than a decade ago. It has since become a flagship education course in the Management in the Built Environment master track, drawing Delft students as well as those from other Dutch, European, and other international universities. The role-playing imbedded in the course reflects an important contribution Hans has long advocated for: emphasis on the interdisciplinary, and learning through the application of theory in a (close to) real-life setting.



Urban development charrette is a workshop organised within the Urban Redevelopment Game to train students thinking out of box and working in groups



The winning team chosen by the jury panels during the final presentation 2014-2015

MCD®
master city developer

Post-Experience MSc Program: Master City Developer

Master City Developer is a part-time, accredited Master of Science program for Dutch urban planning and development professionals, jointly organised by Delft University of Technology, Erasmus University Rotterdam and the City of Rotterdam since 2003. The MCD program connects international academic research to the Dutch practice of urban development projects, aiming to deliver (more) reflective practitioners that strive for integrative and sustainable solutions to urban problems.

The two-year MCD program consists of thee parts, and is divided into eight modules. The first three modules provide participants with a solid knowledge base in urban economics, resilience and governance. The second three modules are more applied, combining in-depth theoretical insights with project-oriented workshops and assignments. Urban strategy and design, finance, and public-private collaboration are major themes in this second phase of the program, with frequent project visits—including an international trip--and reflective on-site discussions with expert professionals and senior academics. The third and concluding part of the MCS training is planning and conducting a supervised MSc-thesis research project.

Hans de Jonge is one of the founding fathers of the MCD course, which was clearly created ahead of its time given the other courses and programs that have since emerged on the topic of area development on different levels of Dutch professional education. Hans represented TU Delft in adding crucial management, real estate and design components to the initial MCD program, and played a visionary and leading role in developing and improving the modules of the course—including a recent effort to give MCD a more flexible modular structure. His own performances as lecturer and instructor are highly valued by MCD participants, and his guidance to the management team of the MCD program has been of vital importance.

UDM Research

The following sections are descriptions of current Urban Development Management themes.

Urban Development Projects in the Era of Globalisation

Large-scale urban development projects (UDPs) can be seen as important neo-liberal intervention strategies in urban regeneration schemes since the 1970s. In the era of globalisation, international metropolitan regions often used UDPs to transform their image, create globally oriented urban space, and reposition cities on the map of globally competitive metropolises. In the last decades, developing eco-friendly, resilient, smart and creative cities has become a new impetus supporting the creation of new UDPs. This line of research examines how cities use UDPs to shift the development path of cities to post-industrial knowledge-intensive economy in European (e.g. Amsterdam, London, Rotterdam, Barcelona) and Asian context (e.g. Beijing, Shanghai, Hong Kong, Guangzhou, Singapore). Special attention is paid to various management instruments used in dealing with urban development in a complex environment, i.e. inter-scalar dynamics involved in changing global-local and stakeholder relations, strategic action and urban impacts. This research aims improving our understanding how metropolitan transformations through UDPs are being embraced, resisted and exploited, and how they relate to global trends, regional governance and local issues, as well as how lessons can be learned within an international context.

Waterfront Planning and Development

In 2002, port and city authorities in Rotterdam defined the next step in the revitalization of the seaport areas inside the city's highway rim. The area called CityPorts ('Stadshavens') was originally defined as a waterfront transformation area—plans that soon had to be revised. This line of research reconstructs the strategic planning and development process around waterfront projects like Stadshavens Rotterdam, comparing waterfront development strategies in seaport cities across the globe. By extension, this research lines serves as a basis for advancing an integrative approach to plan and develop the interface between cities and large seaports sustainably. Ongoing waterfront research focuses on case studies in Europe, but projects in Asia (e.g. Shanghai) and North America (e.g. New York City, Boston, San Francisco, Vancouver) are also of great interest.

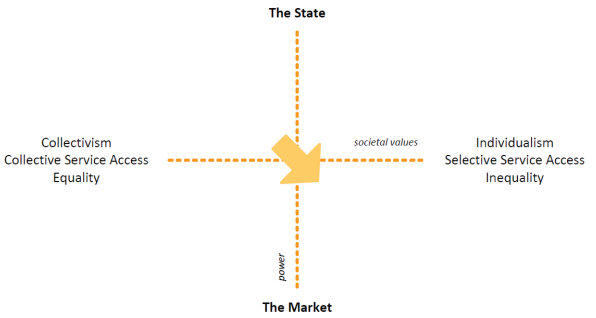
Private sector-led UDPs

This research builds upon insights from De Jonge (2007) on changing state-market power relations and value shifts apparent in contemporary societies worldwide. An example of this trend are private sector-led urban development projects, in which real estate developers and investors perform various tasks normally carried out by public planning authorities. With such

an increased role for private actors in cities come concerns about safeguarding public interests and (re)developing urban areas in a sustainable manner. Therefore, research in this field focuses on identifying effective governance arrangements and management activities and instruments that assist market actors to deliver sustainable urban development projects.

City Icons and Catalyst Effects

The redevelopment of Delft Spoorzone, the new waterfront of Amsterdam-Overhoeks, a new stadium 'De Kuip' in Rotterdam are all projects established to create new city icons. Local political leaders, developers and urban planners are eager to add flagships to the urban landscape, in the hope that they will be a catalyst for urban development. If a flagship building is a catalyst, it boosts the local economy, employability, tourism, land value, housing prices, and other real estate investments. Politicians or developers often sell flagship buildings as a benefit for the urban community, but are there any recipes for success? Among others, Hans de Jonge has warned about flagships as 'UFOs'; iconic buildings that seem to be alienated objects, disintegrated from the surrounding area. The UDM-group focuses on the questions how and to what extent urban flagship projects really contribute to the development of the surrounding areas from physical, economic and social perspectives. What kind of design principles do we need to apply if flagship buildings are to have social and economic spin-offs? What makes them attractive places, not only for tourists, but also for local communities? What governance principles and management models are helpful to strengthen catalytic effects in adjacent neighborhoods? New insights into the catalytic mechanisms of urban flagships could help decision makers, investors, designers and urban planners with their area-based (re)development strategies.



Value and power shift in Dutch urban development (De Jonge, 2007)

Sustainable Strategies and Impacts

Today's urban development is responding to challenges of climate change, resource use and their increasing effects on liveability and prosperity. Urban solutions to these challenges, often of a technological nature and stimulating integration within and between urban systems, introduce new issues, interests and actors to the process of urban development within an already changing balance between public and private actors and society, bringing in new dynamics and a need for institutional change to guide the process of interaction and decision-making. Urban area (re)development projects are perfect places for experimentation and testing of innovative solutions, confronting individual choices and highly decentralised solutions with centralised systems and collective values. Analysing cases will allow lesson drawing on (collaborative) strategies and their impacts, for the benefit of actors in the cases concerned, but especially in search for those lessons that can be applied elsewhere, in other projects, in different spatial and institutional settings.

Future: Moving beyond the Dutch Experience

With the establishment of the section of Urban Development Management, led by Tom Daamen, and the appointment of Ellen van Bueren as professor in 2015, the section is now fully capable of taking up the task of developing the knowledge of urban development management, in response to present and upcoming urban challenges. The maturing of the section also holds a promise to play a role in all types of academic work – research, education and valorisation – and thus contribute to the maturing

of the field. Strong relationships with the relevant, more established academic fields and professional disciplines will offer a source of continuing inspiration from which to derive propositions for urban development management. By doing (applied) academic work that is both rigorous in its methods and relevant in its results, we contribute to the establishment of interdisciplinary field of research and education recognised in international academia as well as in professional practice. Together with the design and engineering environment in which we are embedded, we will contribute to sustainable and resilient urban environments.



References

Dühr, S, C. Colomb, & V. Nadin (2010), European Spatial Planning and Territorial Cooperation. London: Routledge.

De Jonge, H. (2007), Gebiedsontwikkeling voor een kenniseconomie, Real Estate Magazine, 50, 12-15.

Prof. Dr. Ellen van Bueren is professor in Urban Development Management at the Department of Management in the Built Environment, Faculty of Architecture TU Delft.

Dr. Yawei Chen is assistant professor of Urban Development Management at the Department of Management in the Built Environment, Faculty of Architecture TU Delft. Her research focuses on the urban strategies of cities in transition to post-industrial knowledge-intensive economy, with special attention to the inter-scalar dynamics of strategic mega projects in European and Asian metropolitans.

Dr. Tom Daamen is assistant professor of Urban Development Management at the Department of Management in the Built Environment, Faculty of Architecture TU Delft. His research focus is on spatial planning and development strategies for waterfront zones in the context of seaport cities in urbanizing delta regions. He has been heading the UDM section since early 2013.

Ir. Agnes Franzen is researcher and project manager in Urban Development Management at the Delft University of Technology, Faculty of Architecture and the Built Environment, and Director of the Foundation for Knowledge of Urban Area Development (Stichting Kennis Gebiedsontwikkeling, SKG).

Dr Erwin Heurkens MSc is Assistant Professor in Urban Development Management at the Delft University of Technology, Faculty of Architecture and the Built Environment. His main research interest is international comparative studies on sustainable urban and real estate development practices, with special attention for Anglo Saxon countries.

Dr. Fred Hobma is Associate Professor of Planning and Development Law at Delft University of Technology. He teaches planning law, land law and building law at TU Delft. He is also lecturer on urban development law at MSc Master City Developer. His research focuses on the legal aspects and governance of the built environment and infrastructure.

Dr. Wouter Jan Verheul is research fellow and lecturer Urban Development Management at the Department of Management in the Built Environment, Faculty of Architecture TU Delft. Apart from this, he is programme manager of the MSc Master City Developer. He has written a PhD thesis about iconic urban projects and his current research focuses on governance of large-scale urban projects and their catalytic effects.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Facts & Figures of the UDM section

Tom Daamen

UDM staff

The fluctuating composition of the REM staff can be found at the end of the book section 'Hans at a glance'.

UDM highlights

Since its establishment as a separate group the UDM section was involved in a number of events that we experience as our highlights. The main highlights are listed below. Although any PhD-defence is a highlight as well, we excluded them from the list and refer to the overview of Hans' PhD candidates and the summaries of their theses in this Liber Amicorum. We made an exception for Wouter Jan Verheul who finished his doctoral research under the supervision of Prof.dr. P. 't Hart and Prof.dr. M.J.W. van Twist, with Hans de Jonge being a member of his defence committee.

Every publication of a paper in a renowned journal is perceived as a highlight as well. However, to limit the length of the list of highlights, we only included a number of renowned books, whereas journal papers, conference papers and book chapters have been excluded from the list. For our papers in inter alia Planning Practice & Research, Town Planning Review, Journal of Public Administration, Journal of Economic and Social Geography, Environment and Planning, Urban Studies and Cities we refer to the lists of publications at our website www.mbe.bk.tudelft.nl.

External funded REM research

Below we present a selection of externally funded UDM research. We excluded small projects and funding from external teaching and management activities.

UDM Highlights

Year	Topic
1995	Book on land policies and market-oriented, area-based practices in The Netherlands by Gerard Wigmans, entitled 'Grondbeleid en marktoriëntatie: risicobeoordeling in de grondexploitatie' (Publikatieburo Bouwkunde)
1996	Positive scores on relevance, quality and viability in the Research Assessment 1991-1996
1997-2010	Participation in the Delft Research Initiative Sustainable Urban Areas (SUA) Participation in ICES/KIS and BSIK with systems innovation in area development and the use of space
2002	Positive scores in the Assessment of Research 1997-2002
2003	Start of a separate Urban Area Development (UAD) group, within the REM section
2003	Publication of the first syllabus on Urban Area Development for students, edited and co-authored by Gerard Wigmans
2003	Founding of the post-experience master program Master of City Developer (MCD) together with Erasmus University and the Municipality of Rotterdam
2004-2014	Long-term research contract with the Urban Development Department (OBR) of the Municipality of Rotterdam, leading to a number of research projects with presentations, workshops and publications
2004	Book on Integrated Area Development: the 's-Hertogenbosch Station Area, the first joint publication on Urban Area Development between academics and practice experts (in Dutch) (SUN)
2005	Book on Public-Private Partnerships in Dutch Urban Area Development by Tom Daamen, entitled 'De kost gaat voor de baat uit' (SUN Publishers)
2006	Founding of the SKG Urban Area Development Knowlegde Centre and appointment of Friso de Zeeuw as the new chair of practice. SKG produces a multitude of research reports, professional publications, workshops, round tables, and conferences
2006-2016	Annual Conferences on Urban Area Development for Dutch practice (organised by SKG)
2007	Publication of the inaugural booklet Angel from the Marble ('Engel uit het marmer'), reflections and perspectives on Area Development in The Netherlands, authored by Friso de Zeeuw and Agnes Franzen
2008	Launch of the internet platform Gebiedsontwikkeling.nu for dissemination of knowledge on Urban Area Development for Dutch practitioners (currently over 10,000 unique visitors)
2011	Book publication on Management of Urban Development Processes in the Netherlands written by UAD staff and professional experts (Techne Press)
2011	Book publication on Planning Dutch Retail Areas, co-authored by Dion Kooijman (Sdu Publishers)
2010-12	Book publication (2010) and reprint (2012) of the successful book 'De Grondexploitatie' by Gerard Wigmans
2012	PhD defence of Wouter Jan Verheul at Erasmus University Rotterdam (Hans de Jonge as committee member), combining the fields of public administration, architecture and urbanism.
2012	Establishment of a separate Urban Area Development section within the department
2014	Edited volume on International Approaches to Real Estate Development, co-edited and co-authored by Erwin Heurkens (Routledge)
2015	Start of Ellen van Bueren as appointed Professor of Urban Development Management, establishing UDM as a full-time chair and section of the MBE department

Selection of externally funded UDM research projects

Year	Financed by, Subject, Leading researcher(s)
2000	NS Railway organisation, Location synergy, De Jonge / Peek
2002	NETHUR, Housing and leisure, Kooijman
2004-2006	Habiforum bsik, Run and fun Rotterdam Central Station, Kooyman / Wigmans
2004-now	Master of City Developer, Contributions to Post MSc MCD, De Jonge / Wigmans / Daamen / Heurkens
2004-2014	Municipality of Rotterdam and TU Delft, Urban Area Development
2004-2009	Municipality of Rotterdam, Port of Rotterdam, TU Delft, Urban Decision Room (Heijsehaven, Laurenskwartier, Waalhaven), Van Loon
2005-2009	Municipality of Rotterdam and TU Delft, Integrated Land and Building Development Cost Model (IGOMOD), Bijleveld / Van der Toorn Vrijthoff
2005-2009	Municipality of Rotterdam and TU Delft, Development Strategies for Waterfront Areas, Daamen
2006-2009	Municipality of Rotterdam and TU Delft, Rijkswaterstaat/Prorail, Dynamic Actor Network Steering and Control (DANSC) Hoeksche Waard, Van Loon
2008-2009	Municipality of Rotterdam and TU Delft, Designing and Budgetting ('Tekenen en Rekenen'), Heurkens
2008-2011	Municipality of Rotterdam and TU Delft, Strategic Municipal Real Estate (Portfolio Management), Arkesteijn / Van Loon
2010-2011	Municipality of Rotterdam, TU Delft & Erasmus University, Steering for Value I (Sturen op waarde), Franzen / Daamen
2011-2012	Municipality of Rotterdam, Steering for Value II, Daamen
2012	Municipality of Rotterdam, Facilitating Private Sector-led Urban Development, Heurkens
2013	Municipality of Rotterdam, Kennismotor, Daamen/Heurkens
2006-2016	Foundation of Knowledge for Urban Area Development (SKG), Variety of research projects, De Zeeuw / Franzen
2011	Programmabureau Stadshavens Rotterdam, REAP2 (Rotterdamse Energie Aanpak & Planning), Daamen / Hobma
2012-2013	Municipality of Rotterdam, Governing between City and Port (Sturen tussen stad en haven), Daamen
2012-2016	EU Marie Curie, Urban Knowledge Network Asia, Chen / Heurkens / Daamen
2014	EU - Horizon 2020, Sustainable Building Adaptation - WASTE, Remøy / Binnekamp / Heurkens
2015-2016	Smartport Institute, Next Generation Waterfronts: Schiedam, Daamen
2015-2016	LDE, LDE Center Mainport & Metropolis, Daamen
2015-	NWO, CityZen, Van Bueren



Hans is a ‘Rotterdammer’ at heart

Adriaan Visser

Professor Hans de Jonge is the chairman of the Rotterdam Central District association. I see this as a unique and innovative form of Public Private Partnership (PPP) in a large regional development. The association is based on three pillars; the business club (meeting each other), marketing the region and a joint vision of the field.

The municipality is one of the participants and forms part of the bigger picture. This means the municipality is no longer the party who unilaterally determines the direction. This is done collectively by all partners. Hans fulfils his role as chairman of the RCD with fervour. He knows how to explain why this is a unique form of cooperation. He is also an excellent leader of the association and manages to stay in control of any difficult situation. Hans is a very strong person and knows how to convince people using his knowledge and skills.

He also has a big heart for our city! The city of Rotterdam is greatly indebted to Hans. In many ways, Hans is a ‘Rotterdammer’ at heart. He is all about talking and doing, being straightforward, working together, learning and developing.

As managing director of the Rotterdam Development Corporation, where I started in 2006, I already met Hans before regarding issues related to urban development. Hans soon became a key adviser, an inspiring teacher and a highly appreciated person to me.

The city of Rotterdam is greatly indebted to Hans. Hans is all about talking, doing, being straightforward, working together, learning and developing.

The city of Rotterdam is closely involved in the MCD program, Master City Developer. It is a wonderful partnership between TU Delft, Erasmus University Rotterdam and the city of Rotterdam. Hans de Jonge is one of the main driving forces behind the program. As supervisor of the program, Hans was always looking for further improvement, co-responsible for the accreditation and always willing to travel for the program. It was an honour to work with Hans on this for a period.

Dear Hans, I wish you the best of luck. Thank you on behalf of the city of Rotterdam, on behalf of all the citizens of Rotterdam and on behalf of so many alumni of the MCD program.

Adriaan Visser is vice mayor Finance, Organization, Harbour, City Centre and Sports Municipality of Rotterdam


HSBC
MIRAE ASSET
AURORA

Persons make institutions

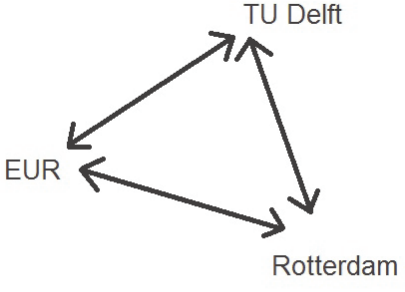
Jan van 't Verlaat

The first time we personally met was at your TU Delft office. In an old diary I found the date: the 9th January 2002, 14.00, Berlageweg 1. My question that afternoon to you was: What do you think about a post-initial master program in urban development? And my second question: Would you (TU Delft) like to participate in that program, together with the Erasmus University Rotterdam (EUR) and the Rotterdam Development Corporation (RDC)? I will never forget that afternoon at your office: a very animated and stimulating meeting. You promised full cooperation. I left your building with very good feelings and optimism. And indeed, this moment appeared to be the real (re)start of the preparations of what later would be the Master City Developer (MCD).

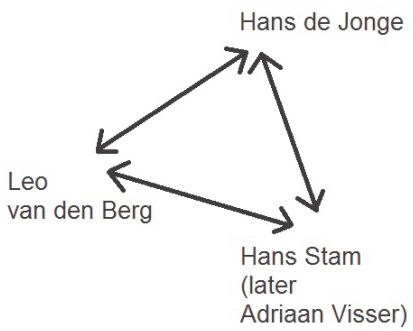


With your commitment, Hans, a clear market positioning became possible with a clearly defined specific goal: urban area development. A triangle was born.

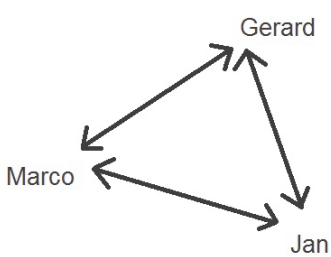
Already at the end of 2000 we at RDC, with Hans Stam as our new director , coming from EUR, started to make plans for a post-initial master program, initially in the context of a research program together with EUR, but we didn't succeed to get a really well defined product market combination. In the meantime Leo van den Berg became more and more involved on behalf of EUR. This appeared to be a huge improvement compared with the more theoretical EUR involvement before. But with your commitment, Hans, a clear market positioning became possible with a clearly defined specific goal: urban area development. A triangle was born, as a solid base for the MCD:



But institutions are just institutions. Persons make institutions. I suppose you remember that starting phase of the MCD with the same good feelings as I still do. But there was more than just the MCD. In addition to the research cooperation that already existing between EUR and RDC, a similar close collaboration started between TUD and RDC. Later on these initiatives even resulted in a concrete research project for TUD and EUR together, with RDC as the commissioner. It was mainly because of the warm support of three persons during all these years, who stimulated these forms of cooperation between these scientific organisations and Rotterdam as a field of investigations and experience in practice, with short lines between them:

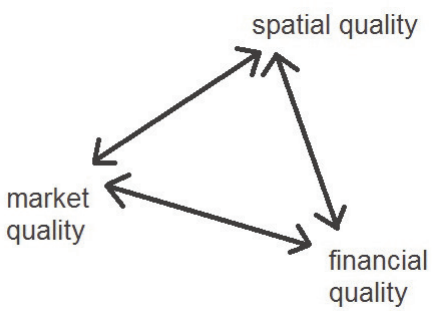


Back to the MCD. After our meeting in January 2002 a decision process started within and between the three organisations involved. From the beginning of that process I got to know you as an important driving force for the realisation of the MCD. One of your first actions was to ask Gerard Wigmans to join me in this realisation process, as Leo did earlier with Marco van Hoek. A real pioneering phase started by then. Later on you would often speak about 'the three pioneers' or even 'the three musketeers':



Evidently we all together succeeded in creating an appealing program for the MCD: the first course, starting 2 September 2003, appeared to be over booked. From then we had to demonstrate, with about 50 teachers from science and practice, that our plans on paper should work in reality. Of course we had some teething troubles with our 'child MCD' and there were several short exciting moments, as I remember very well, but at these moments just a quick glance at your big smile was often enough to retake again and to go on full swing with our common mission. At crucial moments during MCD history your contribution in our so called Academic Committee was of great importance. In addition, your substantive, positive and stimulating role during MCD lectures and meetings is unforgettable for me.

Finally, of course I shortly have to mention a fourth triangle, a well-known one for all the MCD participants during these years. Often characterized by others as a well- founded theory of urban development, based on thorough investigations during years and years. However, once born during a dull moment, just as a simple tool to bring some order in the course of the next day when Jan Doets and I had to tell something in the so-called Novam course, about urban development and our experiences at the Rotterdam Real Estate Department, somewhere in the eighties:



As you see, I changed the description at the angular point right down a little bit, which happened during a second dull moment, since my retirement.

Fortunately this triangle appeared also to be useful during the MCD course, in explaining the context of many phenomena in urban area development as well as in helping us to structure the modules of the MCD course program. However, this triangle is primarily a result of experiences in urban development in practice during the years. By writing this down I see in my imagination again your big smile.

We can look backwards with great pleasure, together with others, at all the wonderful moments we experienced with the MCD, that wonderful motor of knowledge development, all the meetings of the Academic Committee, the yearly MCD ceremonies, our MCD trip to Shanghai, all the MCD meetings with you in the role of discussion leader, and last but not least, the day of the successful accreditation of the MCD.
Hans, it was a great pleasure to work together.

Thank you very much for that!

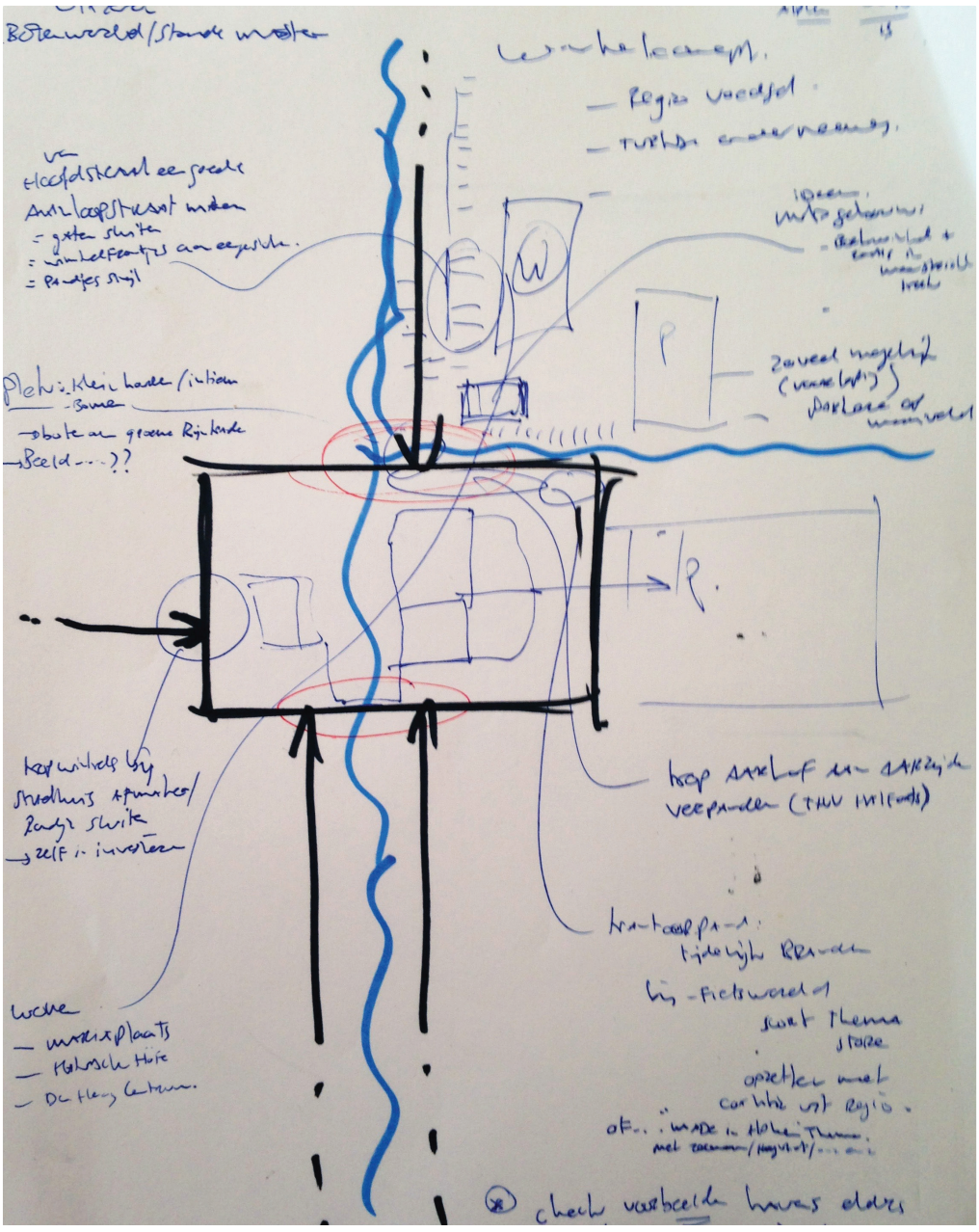
And all the best for the years ahead!

Jan van 't Verlaat is the former director of the Town Development Unit of the Municipality of Rotterdam and partner of the Master of City Developer in Rotterdam









A concept vision for the city centre of Alphen aan den Rijn that Hans de Jonge and Geurt van Randeraat made together while being in New York City in 2013

Strategies for inspiring cities

Geurt van Randeraat

Getting roasted

It was in Rotterdam at the MCD-course where I first met Hans. During the day our student team was presenting the results of a design study for the redevelopment of a part of the Rotterdam harbour area called Stadshavens. Our job was to create a strategic framework. One second after we finished our well prepared speech, Hans, who was the academic critic, irrupted with a flying tackle that would have made good old Marco Gentile blush. In a deterrent machine-gun tempo, alternating seriously and tongue-in-cheek, he started to interrogate about facts and figures: the size of the area; height of buildings; vacancy rates of commercial space in square meters; leasehold prices payed in the area; the most important stakeholders; the urgencies they experience; the demand statistics for the housing market; contracts; and so on. He roasted us.

The need for facts and figures

Then I thought he was just teasing us, like some teachers love to do with their inexperienced students, making them look foolish. Later, when I got lucky to be able to work together with Hans for a few years, I noticed he does it every time and all the time, with students in a classroom, with city councils, even in boardrooms. Knowing the facts



In a deterrent machine-gun tempo, alternating seriously and tongue-in-cheek, Hans always interrogates actors about facts and figures.

and figures is key for any person working in the complex surroundings of an urban area development project. At first sight it seems a bit weird. In such complex processes, with projects that take for more than a decade from initiative to execution, what point is there in willing to know these everyday bagatelles? But, after a few years, backpacked with a shipload of experiences in large urban area development projects, you get to understand the value of it all. This accumulation of knowledge creates a skill to have an instant feeling about a case.



In complex situations with lots of wicked problems these first feelings are critical. It enables to make some very early estimated guesses, leading to different hypotheses, which help to quickly find research directions or scenarios. It provides the handles for process interventions; it shows fordable places in stranded situations; it brings insights, helps to ask the right questions, enables to see chances and understand how to bring back the energy in processes.

Of all people I know, Hans is faster, more dominant, more resolute, simply the best at roasting. Besides, he is the most experienced of all in working on complex urban area projects. So Hans, you may now retire at Delft University of Technology, on behalf of all of us working in this field, I do call on you to stay vigorous and coach us as always. Looking forward to the next “roast” by Hans.

Drs. Geurt van Randeraat is director of SITE urban development, a consulting office in inner city redevelopment projects. Besides Geurt was program director of the Master City Developer (MCD) from 2009 till 2016.




cobarts
PARKING

Saying farewell to the initiator of Area Development

Friso de Zeeuw and Agnes Franzen

2016: a memorable year, a year in which, in line with the University Rules, we say farewell to you in your capacity of professor at Delft University of Technology. It's also the year of Brexit, when a majority of the British people voted in favour of leaving the European Union during the Brexit referendum. In a context with developments that also manifest themselves in the Netherlands. The government has been scaling down its involvement for some time now, businesses take fewer risks, citizens become more active and the gap between population groups on higher or lower incomes or educational levels grows wider and wider. The political search for a renewed connection with part of the population is clearly demonstrated at this Brexit moment. And like the UK, the Netherlands too has regions that show both growth and contraction.

Exciting times ... also for us, with you, our global citizen, leaving us. You've been working at the Faculty of Architecture in Delft since 1991. In line with pension regulations, now is the time for a B-exit, taking formal leave of the Faculty of Architecture. But, the door will of course always stay open to you. We've come to know you as someone who's busy 24 hours a day, someone you can always rely on. This is the perfect moment to stand still and look back. The Area Development department can look back on a period of more than ten years with you.





Hans an early bird full of energy. We've come to know you as a passionate, ambitious, people-focused, creative and dynamic person.

In 2003, you were one of the initiators of the successful MCD study programme. The MasterCityDeveloper, a post master degree for professionals in area development and Erasmus University Rotterdam, Delft University of Technology and the Rotterdam Development Corporation. You were also the driving force behind 'Integrale gebiedsontwikkeling: het stationsgebied 's Hertogenbosch', a publication from 2004.

Talking to Chris Kuijpers, director-general for Space of the Ministry of Housing, Spatial Planning and the Environment, you, in your capacity of professor in Real Estate Management and Development, also put Area Development on the agenda during this period. One of the key questions was, and still is, how to organise the collaboration between public and private more effectively. One of the results is the practice chair of area development, which came about in 2006 as an externally funded chair by the then Ministry of Housing, Spatial Planning and the Environment and a number of private parties. All this took place under the banner of Area Development Knowledge Foundation (SKG). As we speak, it has more than 20 public and private members. The objectives of the foundation include responsible contracting by the government and market parties, learning from project practice, optimising the preconditions in, for instance, legislation and study programmes, establishing connections between relevant disciplines, as well as improving quality awareness, market focus and project tempo.

During the past decade, the MCD and Practical Chair have built up a curriculum for education and research, with a strong focus on Dutch practice. Last year, the international and scientific dimension was further strengthened with the arrival of Professor Ellen van Bueren on the Urban Development Management chair.



Throughout the years, we've come to know you as a passionate, ambitious, people-focused, creative and dynamic person. An early bird full of energy. A true Rotterdammer. Rotterdam: City of go-getters and daredevils, city of reconstruction, the period of the redevelopment of the Netherlands, including the Delta Works. A time during which spatial planning came into contact with social planning, something you still enjoy to this day. In 1998, spatial planning and spatial development were soon followed by the term area development. The end of the Ministry of Housing, Spatial Planning and the Environment was already in sight and became final at the end of 2010. Under the Rutte I government, the Ministry of Housing, Spatial Planning and the Environment was combined with the Ministry of Transport, Public Works and Water Management, forming today's Ministry of Infrastructure and the Environment. The decentralisation of spatial development was a fact.

After the fall of the Lehman Brothers, our profession also suffered from a 'crisis' for years. And it was here that you spotted an opportunity to introduce the 'False Start' principles. Under your inspiring chairmanship, we organised our first SKG conference under that title. We discussed recognisable key themes that are still topical today. The importance of a jointly supported future ambition, well organised contracting, a planning process with clear steps, linked to a decision-making process, feasible business case. And you referred to urgency, perseverance, nerve, attention for each other's interests and a flexible attitude as vital.

During subsequent years, you regularly gave critical feedback and you contributed to various publications, such as 'De Engel uit Graniet', which reflected on the years of crisis. Area development in a different reality, now what? And your 'Slim Vlottrekken' and 'Werkzame strategieën' publications. You were also the driving force behind the international publication Management of Urban Development Process, highly appropriate and 'as such' still in use at schools.

Change is part of life. We doubt your statement 'that the world has changed to such an extent that the experience of the elderly is useless' is true. You've always had a vision. At the end of this year, you will act as chairman of the day at our annual conference for the seventh time. For God, the number seven equalled rest, after earth was created during the previous six days. It's a good time to ponder and reflect, which fits in with the theme of this year's conference: the impact of technological developments on area development. The Area Development chair started in 2006. This year, we will be celebrating our tenth anniversary at our annual conference. Thank you for your commitment, for putting social issues on the agenda and for the beautiful and exciting partnership.

Friso de Zeeuw is the practice chair of Urban Development Management at Department of Management in the Built Environment and chair of the SKG Knowledge Area Development Foundation.

Agnes Franzen is director of the SKG Knowledge Centre and assistant professor of Urban Development Management at the Department of Management in the Built Environment, Faculty of Architecture TU Delft

www.gebiedsontwikkeling.nu/info/stichting-kennis-gebiedsontwikkeling-skg/



Study trip to New York

PhD research: a journey from a guided trip to a self-guiding trek

Gert-Joost Peek

Hans de Jonge told me once that one of the goals of doing a PhD is surpassing your promotor in the specific field of your research. Let me say that I am convinced in succeeding, but the process also learned me that Hans is not easily to overtake. One of the most difficult aspects of this part of doing a PhD is the transition from starting it as a guided journey – as unexperienced graduate heavily relying on your promotor for guidance – to finishing it as a self-guided trek – as a self-guiding academic being able to present new and original results open for critique of an academic community. As a PhD candidate it is your role to challenge your promotor and eventually surpass him. As promotor it is your role to gradually let the candidate take ownership of the research, still being critical and yet helpful even though the research might take a course that differs from what was initially intended. Hans and I have had our differences during this transition and looking back I am grateful for this. It tells me that we both valued what we were doing and were willing to fight for it. One should not forget that is it the promotor's reputation that is on the line when the PhD committee is questioning the value of the dissertation.

When we started the research Hans had a pretty clear idea of what should be the outcome and how this could be reached. I on the contrary was not so sure on the what and how. What kept it all together was the why: we both were (and I suppose we still are) very interested in the relation between urban quality and the process of delivering it. Thinking about my PhD journey and reflecting on the role of Hans as my promotor I found one of the tools I used in my participative problem-structuring method very useful in visualising the transition we have gone through. This tool is the strategy table, introduced by my second promotor Jac



As a PhD candidate it is your role to challenge your promotor and eventually surpass him. As promotor it is your role to gradually let the candidate take ownership of the research.

Geurts, which we renamed to design table matching the tradition of design research within the faculty. The table shows the most important element of the transition in terms of WHAT, HOW and WHO. In each column various possible options are given and based on three specific moments in time – start, end and after my PhD – the actual options of choice are indicated. As such the design table shows the journey I have undertaken.

I am not going to explain all choices and also not the influence of Hans in these. But let me make clear that he has had and still has impact on the decisions I make, either in the field of transportation or when I try to guide a PhD candidate as daily supervisor. And also when I push for an approach of urban area development as a learning curriculum . . . a bit like a PhD maybe . . . That certainly is a transition!

Dr. ir Gert-Joost Peek MRICS is a former PhD candidate of Hans de Jonge at the Department of Management in the Built Environment, Faculty of Architecture TU Delft. He is currently a lecturer at the Rotterdam University of Applied Science and Programme Designer at ASRE.

Design table

WHEN?	WHAT?							HOW?		
	Research object	Research subject			Research paradigm			Work		Result
	Geography	Key-concept	Urban area development as a . . .	Central actors	Management theory	Goal of urban area development	Research method	Profession	Employer	(Expected) duration
Start PhD	Station locations	Synergy as promise	Project	Users	Integrationism	Financial result	Qualitative	Academic	TU Delft University of Technology	4 y
	Stations in transportation network	Synergy as project	Production chain	Share holders	Pluralism	Spatial result	Quantitative	Junior policy-maker	ING REAL ESTATE Real Estate developer	6 y
Finish PhD	Stations in urban network	Synergy as process	Process	Long-term shareholders	Isolationism	Economic result	Participative problem structuring	Professional Researcher	Fakton Consultancy firm	8 y
	Greenfields	Synergy as measurement	Decision-making	Stakeholders	Don't know	Environmental result	Design method	Lecturer	SPOTON Self-employed	Too fast
	Retail centres in urban network	Synergy as illusion	Place-making	Collectives of city-makers	Don't care	Social result	Case-study	Consultant	University of Applied Science	Too long
After PhD	Brownfields in urban network	Synergy as ...	Network	Politicians	Don't mind	Spiritual result	Survey	Educational course designer	Social service	Just right
	Urban innovation districts	...	Collective actions		...	Regime change	Literature study	Unemployed	Academic Institute	Shouldn't have stared
	...	...	...	...	...	...	...	I'M BINLK Volunteer	...	...



		WHO?				
		Me		Transport		
Publications	Platforms	PhD guidance	Marital status	Work-related transport	Work proximity to train station	Home proximity to train station
Non	MIPIM	By daily supervisor	Single	Train	<100 m	<100 m
>5 international scientific	CVS	By 1 promotor	Living together apart	Small car	<300 m	<300 m
>10 international scientific	Fresh	By 2 promotors	Living together	Large car	<500 m	<500 m
>15 scientific	ULI	Being a daily supervisor	Married	Bike	<1 km	
>25 scientific	Provada	Being first promotor	Family 1 kid	Plane	<3 km	<3 km
>15 professional	Duurzaam gebouwd	Being second promotor	Family 2 kids	Snowboard	<10 km	<10 km
>50 professional	Pakhuis de Zwijger	...	Divorced	Skies	<30 km	<30 km
...	VOGON	...	...	Roller-blades	...	...


REGATTA

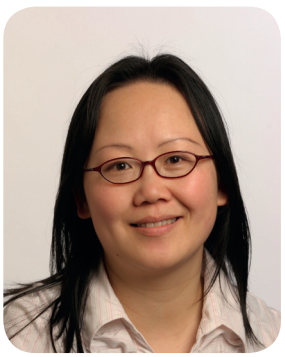
From Shanghai to Delft and back to Shanghai

Reflecting on my PhD Journey and my development as a Dutch researcher with a Chinese background

Yawei Chen

When I graduated with distinction in 2000 with my master thesis on the topic of public –private partnership in providing low-income housing in China, I was extremely excited about the possible role non-state players can play in defining cities' urban environment and landscape and how the western knowledge on city making can help Chinese cities. Giving my first encounter with Europe during my master education, I was fascinated about the way how European cities organise, manage and develop their cities. I saw order, neatness and I heard stories about friendly collaboration between the state and other parties, very contrary to the picture I have when I think of Chinese cities and urban development in China, which is chaotic, confronting and in a way of trial and error.

In 2001 when I was accepted to be a PhD candidate in the Department of Real Estate & Project management (nowadays Department of Management in the Built Environment) at the TU Delft, working on public-private partnership projects in cities, I met Hans de Jonge for the first time. There was a click between us, despite the seemingly unbalanced weight from both sides: a renowned Dutch professor with a broad vision and wisdom and a shy Chinese young lady just starting exploring the unknown new horizon. I explained my fascination of the management and development here in the Netherlands, Hans asked me: "how about China? How could they develop so fast?" This question has later set the tone of my PhD research – to explore the dynamics in Chinese urban development process with well supported western theoretical background. So came the start of my PhD, a combination of wishes from Hans and me. I was to investigate mega projects that have been carried out in China and in Europe, understanding the similarity and difference between the development strategies these cities.



It is very important to assess the urban development processes in other parts of the world and to understand the similarities and differences between the development strategies of different cities.

The interesting start of my research was to participate in a competition of the Dutch Planning Bureau that Teun Koolhaas Association joined in 2002. The competition was to design a Dutch town in Shanghai Pudong New Area, exactly the city and the urban area I wanted to investigate. The deal was soon made: I helped his company's competition with my knowledge about China, China's urban planning and Shanghai, a city I lived for four years during my university period. Meanwhile, Teun Koolhaas, one of Hans' acquaintances, would provide me with his first-hand experience in the earlier development of the Kop van Zuid in Rotterdam. This starting seems to be a typical Hans' move, bringing academic interest with practice together to create a synergic effect. Indeed, this way of working proved to be very effective. It was also during that competition that I met a number of my alumni from Tongji University in Shanghai, who later became the most important source for my Pudong case.

The long journey of a PhD research is not only full of excitement and happiness, but also brings doubts, uncertainty and sometimes disbelief. Large-scale urban development projects (UDPs) in European cities were in general discussed rationally, with the main debate among researchers and policy makers focusing on appropriate strategies, the relation among stakeholders and their possible social-economic-spatial impacts. But when the same debate was positioned in a Chinese context, often the discussion became very biased and politicalised. "There is nothing to be learn of from a Chinese case" or "No matter what, the democratic countries are much better than the Chinese dictatorship" is often the attitude I encountered during my entire research journey. It is Hans' strong belief in the significance of understanding the urban development processes in other parts of the world, the persistence he had in facilitating me to explore the truth from the reality, and his modest attitude towards the unknown that gives me the strongest support to every moment when I had doubts about my research. His wisdom also proved to be forefront later, when the European Union believed that the great impact of Chinese urbanisation to China has been felt in other parts of the world, so understanding this process becomes urgent. From 2010 on, EU has set up two research calls within the European Framework and Horizon 2020 to investigate Chinese urbanisation process.



Hans' input includes his master mind in being a great educator, and not narrowly looks at where his PhD should get the knowledge from. When he sensed that I might need extra theoretical support, he brought Dr. Gerard Wigmans in. The triangle of Hans, Gerard and me worked really well till the end of my promotion. In those many times of discussion and debate in a meeting room in Novotel nearby Erasmus University, the three of us had brainstorm sessions. We debated on the theories to explore, and each element that should be taken account in order to understand the complex process of a Chinese mega project. We also laughed and made jokes to each other with all those Chinese anecdotes. I was glad I had so much freedom in exploring some of the complex political-economic theories – the developmental states theory - to strengthen my research framework. Thanks to such thorough discussion, I could build up a solid research framework to understand the roles played by the state and the market in a Chinese context and passed every threshold of the examination set by the Faculty Science Committee with great confidence till my defence.

The inspiration of Hans does not only come from the PhD process. They are many moments that Hans shows his wisdom, leadership and creativity, when we discuss how to improve the education course, how to set research priority, how to prepare the SURBAN project (on Chinese Urbanisation study in reply to a FP 7 call) and how to keep balance between work and life. There are also other leaning moments when he shows his down–to–earth attitude and modesty (e.g., when he drank liquor with researchers from Shanghai Academy of Social Science without any English exchange, or when he proudly talked about his volunteering activities in building dams in India). Hans may not be the most deep-thought academic in theory forming, but he inspired me and others with the knowledge and wisdom he built up from solid practical experience, great intuition of the on-going urban transitions and broad global vision. What is even more precious for me as a foreigner doing research in a Dutch institute, is his sharpness and continuous mental support as a mentor. "Relax. You are doing great!" It was his proud moment to tell me how he was happy to see me performing as a shining star on stage in a real estate conference I co-organised in Shanghai during our MCD trip. He sees the potential of a person, no matter his/her looks, size, gender, race and cultural background is. He sees the growth curve of a person and he nurtures the growth with his wise advice. He shows his trust and belief, which is perhaps the most important support a mentor can give to my long PhD journey and my development as a Dutch researcher with a Chinese background.

Yawei Chen is a former PhD candidates of Hans de Jonge and currently assistant professor of Urban Development Management at the Department of Management in the Built Environment, Faculty of Architecture TU Delft.



Experiencing New York City is always memorable, but some of my fondest memories of NYC were created together with Hans. Caught in front of the UN building, taken from the Long Island City waterfront in 2013.

Hans' Pragmatism

Tom Daamen

"You do have one", the panelist said while padding the shoulder of the professor sitting next to him, "you just don't want to tell us!" People laughed as the accused professor grinned and shrugged. The remark and fatherly gesture had caught him a bit off-guard. Politely brushing the hand off his shoulder, he quickly steered the discussion into a different direction, the statement left unchallenged.

I was standing in front of the cheerful professors, in an austere room situated on the eleventh floor of our former faculty building. Carefully recording the scene in my mind, I was trying to focus and to anticipate the next question from the panel. My heart pounding and palms sweating, I fiercely hoped the PhD colloquium would quickly come to an end. Hans de Jonge must have felt so too - that afternoon, my promoter had found himself guilty-as-charged.

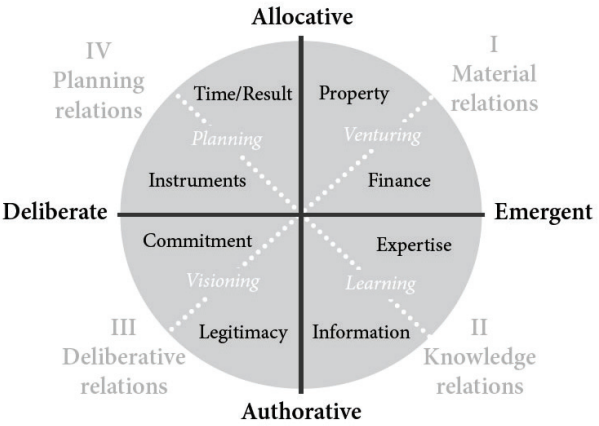
In search of a paradigm

Every academic field of research is rooted in a particular school of thought or 'paradigm'. And each object of study has, in similar words, a certain position in the philosophies of science. This position may shift or multiply, become subdivided and branch into different areas of application, but a position it has nonetheless. To many scholars, the paradigm of a field or research is critical to understand and acknowledge. It defines its 'epistemology', i.e. what can be claimed as true about a field's object of study. There is no doubt that the ability to create and disperse trustworthy theories about something depends heavily on such convictions, and that doing academic work implies a commitment to be aware and explicit about these. Insulting many hardcore positivists, even Albert Einstein confirmed: "Science without epistemology is—insofar as it is thinkable at all—primitive and muddled" (Einstein, 1949: 683-84).



The paradigm of a field or research is critical to understand and acknowledge. It defines its epistemology, i.e. what can be claimed as true about a field's object of study.

During my PhD project, I took Einstein's statement to heart as I explored my own ideas about epistemology as well as those of my supervisors. When I discussed my search with them, the scene of the colloquium described above often recurred: my promoter would skillfully dodge the issue, or maneuver his way out of the topic before it became too personal. He would more generally state that it is "too early" to choose a paradigm for our object of research—a claim reiterated publicly at his Best Teacher Award ('Leermeesterprijs') acceptance speech. Being a postmodern and Marxist thinker, my daily supervisor Gerard Wigmans seemed to accept Hans's position. But it always struck me as just a little bit too pragmatic…



The strategy as force model from the PhD thesis by Tom Daamen.

The academic foundations of Urban Area Development ('gebiedsontwikkeling') have been under considerable debate within our department and, particularly, amongst the staff in Hans de Jonge's Real Estate chair. Hans designated Urban Area Development as a specific object of research and education years before the term was more widely adopted in Dutch policy and practice. He was convinced that an area-based approach to urban problems could offer integrative solutions superior to those of the sectorial methods he'd experienced hitherto. The 'Area Development' approach was thus academically explored in books and PhD theses, and taught within the Real Estate master track. A course for Dutch urban planning and development professionals - the Master City Developer program - was set up together with a likeminded group at Erasmus University Rotterdam. Meanwhile, the debates at TU Delft about the epistemological foundations of Urban Area Development continued.

The intellectual struggle amongst the senior members of the Urban Area Development group in the middle of the 2000s was fierce. To me, the debate resembled what is more widely known in academia as 'the science wars': an uncanny dispute about the inherently incompatible foundations of the natural and social sciences. Thanks to scholars like Bent Flyvbjerg—whom I've had a chance to meet due to the intellectual freedom offered by Hans de Jonge's supervision—I learned that "social science is in a fight it cannot hope to win" if it continues to mirror itself with natural sciences (Flyvbjerg, 2001: 3). It thus dawned to me that my promoter was right to leave the paradigmatic dispute in our group unresolved: it would lead into discussions far beyond the useful and productive. Maybe Hans followed, if only intuitively, the teachings of Sun Tzu: "You must see the need for battle if you wish to develop your own cause on any level, but you should not fight a battle if you cannot foresee winning the war." Yet, the solution again struck me as too pragmatic until I found that being pragmatic was precisely his game. Two arguments support my point.

Pragmatism

Hans de Jonge's love for the ideals of democracy, equality and freedom clearly reflects his modus operandi, which in turn is akin to a distinctively American philosophical tradition—that of pragmatism. In an introduction to pragmatist perspectives in urban planning and development research, Hillier & Healey (2008: 356) confirm that "many outside North America have been unaware of this tradition, using the term 'pragmatic' in an every day sense to mean a focus on the practical." . While this may be true, the authors also explain that pragmatism is much more than having a practical attitude. Pragmatists are "humanists, accepting the limits on human capacity for knowing and perceiving, yet celebrating the human

capacity for managing and adapting, for dreaming about futures and actively working to bring possible futures into being." (ibid.) If anything, this resonates perfectly with how my promoter perceives 'good' management in the built environment, and the crucial importance of design skills therein.

Another way to support my claim in this Liber Amicorum is to quote John Dewey, whose work is widely understood as a philosophy of hope in times of extreme divisiveness during the twentieth century - a situation we all experience again today. Dewey emphasized "the importance of an attitude of respect for others as a central moral quality, to be actively cultivated through [academic] education and through shaping democratic forms." In pragmatic urban planning and development literature, this translates into the belief that working collaboratively on practical problems leads to sufficient shared understandings, enabling stakeholders to 'move on' and potentially challenge immovable power structures that hinder the way towards desired solutions (Hillier & Healey, 2008: 357-8). There is no school of thought closer to what I proclaim as Hans de Jonge's philosophy for Urban Development Management, and perhaps, for society at large.

Knowledge in action

Whether the above assertions about Hans de Jonge's paradigm are true or false will probably remain a mystery. As was already observed during the PhD colloquium years ago: he does not want to tell us! However, my empirical evidence suggests that it may be worthwhile to no longer treat pragmatism as a casual word in daily practice. If taken as a philosophical tradition, it will relentlessly draw attention to the practical value of the knowledge we produce and teach, and press us to keep actively testing that knowledge in practice. Hans de Jonge's pragmatism may then verify itself as a founding school of thought behind a more reflective and desirable urban planning and development practice. I am forever indebted to him for teaching me this, even though he never did so all that explicitly. In the words of Donald Schön (1983), our knowing is in our actions, and it has been a great privilege to work with Hans close enough to observe him and tap into his overt as well as his 'tacit' knowledge and skill.

Hans, I promise to put your philosophy and teachings to good use—in research and in practice.

References

Einstein, A. (1949), "Remarks Concerning the Essays Brought together in this Co-operative Volume." In: Schilpp, P.A. (ed.), Albert Einstein: Philosopher-Scientist. New York: Tudor, 683-84

Flyvbjerg, B. (2001), Making Social Science Matter: Why Social Inquiry Fails and How it Can Succeed Again. New York: Cambridge University Press

Hillier, J. & P. Healey (2008) (eds.), Political Economy, Diversity and Pragmatism (Critical Essays in Planning Theory II). Hampshire (UK): Ashgate

Schön, D. (1983), The Reflective Practitioner: How Professionals Think in Action. New York: Basic Books

Sun Tzu (1996), The Art of War (Interpreted by Stephen F. Kaufmann). Hong Kong: Tuttle Publishing

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A management wheel to support Urban Development Management

Erwin Heurkens

In 2005 I graduated on the topic of 'Multi-actor decision-making on Olympic urban development in the Netherlands'. I remember meeting Hans de Jonge in the elevator bragging about the 8,5 I received for my thesis. At that time I did not know at all that Hans would become my promotor three years later and that he would play an important role in shaping me as an academic. The decision to go for a PhD – in a time where such positions were prefunded for 4 years – was made in Tanzania where I did volunteering work at a hospital. I can recall the moment that I emailed Wout van der Toorn Vrijthoff about my interest in this job while sitting in the shabby computer room in between thunderstorms that would cut off power. The PhD research vacancy was entitled the 'Changing role of municipalities in urban development'. Not only the subject was appealing, also the prospect of having Hans as the appointed promotor sounded like the right challenge to me.

I started my PhD research in 2008 with a meeting with Hans and my co-promotor Fred Hobma. This meeting set the tone for our tutor-mentor relationship, as Hans did not elaborate much on the department's reasons for addressing this research. Instead he asked me how I thought about this subject and what in my view was missing in the description. I humbly said that when something apparently changes at the public side, something must change elsewhere as well, meaning that it might be wise to include the private sector role and study the relationship between these actors. Allowing such freedom to define the subject yourself is something that is really valuable and paramount in developing yourself as an academic. It made me feel responsible and committed



It is important to link theory to practice, to theorize what you encounter in practice, and to practice your theories, for the benefit of academics and professionals.

to my research, and prove to myself and Hans that I could come up with something valuable.

Hans renders a natural authority based on his broad practical knowledge and academic curiosity, which somehow urges you to live up to his expectations. He likes to be challenged and surprised in debate and implicitly demands that you go the extra mile to convince him. I always felt that in every meeting I had to bring new insights to the table and discuss progress based on content. But what did I know about the bigger issues related to this subject? In the beginning Hans introduced me to crucial works of David Harvey on the 'Entrepreneurial State' and other mainly Anglo-Saxon literature that inspired me to see the bigger picture. This broadened up my view and positioned my research within an international political-economic context and academic debates on the neoliberalization of urban planning.

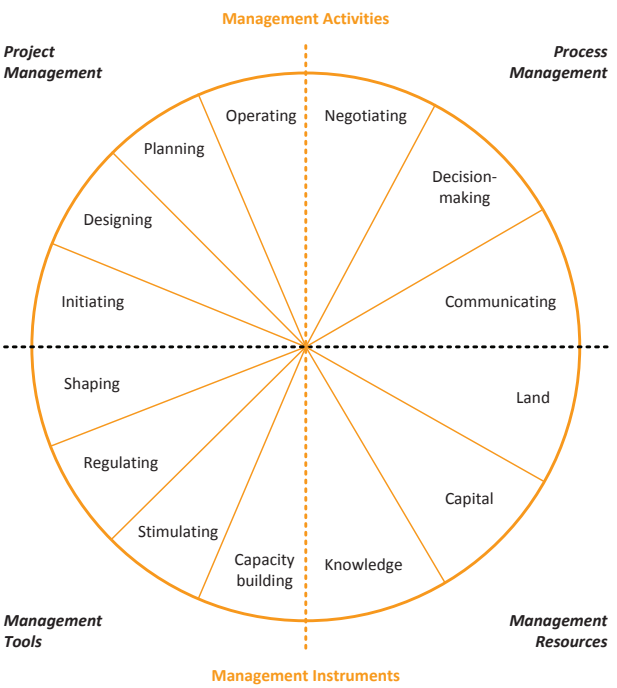
Hans also stimulated me to explore the research problem within practice by urging me to interview practitioners in the field about their main issues. This is something that Hans has taught me as well: link theory to practice, theorize what you encounter in practice, and practice your theories, for the benefit of academics and professionals. The 'Corporations and Cities' conference in Brussels (see also the contribution of Herman Vande Putte) was one of these moments that truly represented the theory-practice link to me. We extensively discussed the role of the public and private sector in making cities, and Hans triggered me to explore this subject as he saw I was enthusiastic. To me he has always pressed the importance of operating in professional networks like the Master City Developer to understand and to validate your research, which remains important to me throughout my academic career as this is what science means to me.

He also was brilliant in motivating me with his famous parables. I still tell Hans' story to graduate students who embark on their research project to see it as a city:

> "A city has a main road that functions as a compass leading you to your final destination. You want to explore side streets now and then to discover interesting things. But never wander off too long in side allies that are dead ends, since they consume too much of your time."

Also it might have something to do with him being a trained architect that assisted him in visualizing complex matters to me. With his scheming he triggered me to conceptualize typologies to structure thoughts and findings, with a 'management wheel' as tangible result. These visualizations were very welcome as I cannot recall that I have actually decrypted his unreadable handwriting comments.

Hans also actively supported me to going abroad for research. Especially my two month period in England opened up a lot of opportunities in my later academic career. I learned how other practices work and how I could conduct international comparative research in a methodologically-sound way. It also triggered my



The "Management wheel", one of the products of my dissertation to show the various components and activities of urban development management

international ambitions and more importantly kick-started building an academic network which I still maintain today. Hans even allowed my six week trip to the US as he saw that I was too curious about American cities like New York, despite the fact that he knew beforehand that it would only play a marginal part in the dissertation. Maybe in this instance he acted as a patriarch; it was something he awarded me as he knew what it meant to me. Over the years we encountered that we weren't too different, and that we needed similar challenges to stay on top of things, as our shared enthusiasm about hiking the Himalayas revealed.

To date my topic 'Private sector-led urban developments' remains relevant to practice and science. It has never been a trendy phenomenon, which is partly because of Hans' valuable judgement on differences between structural and temporal societal changes. I am grateful for this guidance and the opportunities given to develop myself as a researcher/lecturer. Hans sometimes says that he would have liked to have more time for writing papers and books. But his academic legacy remains in the diversity of original works from students like me, which are shaped by his integrative insights on and imaginative conceptualizations of managing real estate and cities.

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Design and Construction Management



A building that we found especially beautiful because of its simplicity: the Plaslaanflat of Van Tijen in Rotterdam

The urge to change the world.
And the burden of being right.

Rudy Stroink

Almost five decades ago, when Hans de Jonge and I studied at the Polytechnic University of Delft there was a clear distinction between right and wrong. These were the turbulent, pre-computer, seventies, when you still had to physically meet each other to get things done. When Facebook, 500 TV-channels at home, email, spreadsheets, your personal guts on the internet, Beyoncé and political correctness did not exist, yet. Our revolutionary meeting place was the old Architecture faculty building, a monument of brutalist modern architecture.

Wrong was architecture with false ornaments, designed for the rich and powerful. Right was modern, white, design of concrete and steel and affordable housing for the poor. Right was doubting the established powers that ruled the world and wrong was planning roads through poor neighborhoods. Wrong was working with contractors who were enslaving idealistic architects for financial gain. Real estate developers, my job later in life, were the real lowlifes; leeches and thieves, capitalistic suppressors of the masses. Right and wrong could also be exchanged for left and right. Left being right and right being wrong.

Just to be sure you understood this correctly, as a student you had to follow a course in reading Das Kapital of Herr Marx, at least the introduction, so you better understand



Hans has always been a revolutionary, disguised in a suit.

the determining economic forces of the world. The underlying message was that architecture and specifically you, as an inspiring student in architecture, had the divine obligation to improve the world, or better liberate the world from the capitalistic inequalities and there was only one way to do it right. The world could turn into a well-planned, just and happy place through beautiful architecture and urban design. Your future job. Making money from architecture was definitely on the wrong side of the equation. Yes,

architecture still had a clear cause in those good old days.

Being right and being wrong carried a heavy moral load in post war Netherlands. Wrong meant collaborating with the enemy; the Germans specifically (who are currently our Best Friends Forever). If you were out of grace as a professor in architecture, you got labelled "wrong" by the progressive student movement in those days. The world improvers did not allow you to teach at the university. History was rewritten in such a way that the good and the bad were carefully distinguished. The bad were the old architects of the Delft School who had dominated the architecture education in Delft in the post war period, based on the principles of classical architecture. Skillful architects and gentle persons like Jan Granpré Molière, Berghoef and Friedhoff, as I later discovered, where thrown out of the faculty. The revolution was merciless, a reckoning with the establishment. The progressive movement wanted a new revolutionary education and practice, whatever that meant.

They invited in the young rebel architects of the so-called modern movement, who were masters in explaining that the new, socially just, world could be arranged through functional design. They preached the separation of cities in areas for houses, offices, shops, and transportation. Living was separated from the ugly factories through large green zones. And all their cities were white. After Marx, Le Corbusier, or LeCorbu as we were allowed to say, was the hero. Architecture had to support the industrialization of the construction process through minimal design; the repetition of equal housing units into neighborhoods and whole cities. A bedroom was 180 centimeters wide so the inhabitant you could fit a bed and a closet (and nothing else) in the room, no frills or ornaments. It sounded very logical, frugal and convincing. There were other schools of thought as well, more humanistic and too complicated to present here in detail, all based on the common notion that architects had the obligation to change the world.

(My daughter, representative of the current less politically ambitious generation, at this point of the story would say: "Boring" while her eyes roll upwards. She is right, those revolutionary, functional principles of us created mostly boring houses and cities, exceptions excluded. But that is a whole different story.)

And somewhere in the middle of this all Hans and I arrived in Delft, for the first time in our life without parental supervision and confronted with the main question in those days: Who's side are you on? This is where both our continuous drive to improve the world, recognizable in our daily work, originated,. This is a typical Delft and even Dutch phenomenon. Delft, Calvinistic, engineers do not only want to make "things better" or "invent stuff", they take on the task of improving society in everything they do. It is in our genes, a state of mind; God created the world, the Dutch created The Netherlands.

As students we fought hard for the new principles, all in preparation of the revolution that would follow shortly, leading to a world ruled by functionality and thus equality. We spent many hours late at night discussing the principles of the rights of the have not's (being us) and how to beat the enemy[1]. I have had various skirmishes with riot police, for instance when I was thrown out the main building of the University, currently the Architectural faculty, after another occupy action (yes we invented that) and was caught sleeping on the desk of the Rector Magnificus. This is when we developed creative management strategies. Once, when we lost a battle over equal rights for students on major policy decisions, we started a campaign in which we threatened to give out a piece of sandpaper to all students, with the order to swipe the main concrete bearing column of the faculty building, every day they entered the building. The slim column was an impressive piece of engineering, that carried the load of 13 floors above. This way we explained to the University governors the unavoidable force of the masses, while educating the students about construction principles. We got our equal voting rights.

I do not know the details of Hans political position during those days. I was on the most extreme left side (or as you now understand the right side) of the discussion. I picture him somewhere in the middle. One of those anti-revolutionary compromisers, that wanted to balance both

sides of the discussion and had some understanding of the other sides position. Terrible people in the minds of those who really understand the logic of everything. Giving his drive later in his career, he must have had some contact with our movement. He has always been an 'improver', though of the more subdued kind. And he always had a strong tendency to doubt the position of the establishment. Definitely not a conservative. On top of that the most suspicious thing about him is that he is knowledgeable in many areas, so he must have learned something during those days, and the students on the left (sorry 'right') side of the debates were in general more curious and at least more ambitious. Most by-standers of those days sunk into history's anonymity. The revolution, if it created anything, created a generation of skilled and creative architects, town planners, managers, politicians and aparatski's. So Hans must have been contaminated in those days.

An important collateral benefit of the revolution is that you learn to organize. If you are able to get 500 argumentative, undisciplined revolutionaries to move, you can lead a corporation with 1.500 persons with one finger up your nose. My student years became the best education to become a capitalistic real estate developer later in life. I see the same skills in Hans. So he must have been active, or at least learned somewhat about the management of the masses in those days. Again a clear sign of him being on the right side.

After my student days, which I have to confess lasted rather long at current day standards, I quickly came to the conclusion that the plan of world liberation wasn't moving according to an acceptable timeframe. On top of everything else there were no job for us after graduation. The capitalists had engineered a major recession in the beginning of the eighties and the revolution was smothered in the frustration that many revolutionaries had to visit the local social service department in order to stay of the street. The street, by the way, we wanted to conquer during our revolutionary years. Thinking about those years still causes bad memories, no chance to turn ambitions into action, as the recent crisis caused frustrations for current day graduates. My personal survival strategy was adapt to a new economic reality or die trying. I wanted to maintain at least a fraction of my ambitious ideals. Hans chose Kraaijvanger Architects as a survival strategy and I founded my own firm, together with some comrades in arms, in urban design. Because the city intrigued me more than a building and because nobody needed me, professionally.

Hans and I came, after surviving the job crisis of the eighties, to the same conclusion that in order to improve the world you had to be on the business, formally wrong, side of the real estate practice and not on the designing side. If you want to predict the future, you have to initiate it. So I became a real estate developer. This was a better option than working for a municipality or collecting benefits.

Right and wrong, left and right, initiator or designer, private and public; the line of this story becomes evident. Choices have to be made; ambition and survival strategies in continuous battle. Either as a real estate developer, my choice, or as an organizer of complex building processes at the Rijksgebouwendienst, an apparatski job, Hans's choice. This is when our old revolutionary thoughts transformed from the black and white idealism of our student years into a practical approach towards creating something good in an manageable fraction of the world. Like a nice neighborhood, a great place to work or decent affordable housing.

I learned, during a prolonged stay in Los Angeles in the eighties, the vital lesson that the world does not change by a plan, but by an organic process in which you forge coalitions with bankers, investors, architects, builders and bureaucrats. With the purpose of creating a new built environment that is not only a social and economic improvement for its future occupants, but looked nice too. And they know how to create stunning places in California. Certainly compared to the dry Calvinistic housing projects I was used to design in Delft. Los Angeles was party time for me and the sun always shined there, that helps against lingering depressions about the future of mankind. The only restriction in achieving your ideals was your imagination and your perseverance.

It was an eye opener that performing as an activist for a bunch of rowdy students in the seventies is the same as presenting a new

real estate initiative to a bunch of investors in the eighties in cowboy-land. You have to be fast, though and clearly declare the benefits for your audience. "Do we want free education?" can be delivered at the same tone as: "What do you think of an IRR of 20%?". The end result is the same, the world becomes a better place through your initiative. Capital was not an enemy, as I found out, but a dumb, slow moving river of mud, seeking the lowest point and can be easily redirected to suit your ideals with some simple dykes[2]. So why fight it?

So our lives moved on and Hans an I did a lot of exciting projects in the years that followed. And where did our revolution, or maybe it was just a skirmish in the footnote of world events, lead us? Did the world indeed improve? Well in some way it did, and in many ways it did not. We did create a load of real estate, buildings for a fast growing population that was on a roll spending on houses, offices, shopping, cars and public palace's like town halls and libraries. And that all needed to be facilitated. An endeavour at a scale never to be realized again by mankind, at least not in this century and country, and we were in the middle of it.

The revolution of the seventies also created a counter force; an army of bureaucrats, mostly our past co-combatants that took the message of world improvement to its ultimate conclusion: you could only work for the public sector, since you could not work for the capitalists. They created is a self-amplifying system in which bureaucrats create more bureaucrats through a process of cloning, I observed. The revolution created in time its own counterforce; institutions that turned against the original goals of making the world a better place. I blame the many real estate accidents of the last 25 years to the impregnable layer of bureaucrats that was created, who became inert because of the world improving virus in them. Who weren't able to adapt to a new reality and new demands of society. The nineties and the first decade of this century were not about affordability, equality and functionality anymore; it was about a higher quality of life. Frugality was out, an abundance of capital made your grandest, indulging mirages possible.

They had, in the nineties, still a strong believe in the power of the plan. You first, in documents and plans, cast in concrete the principles of improving the world by your own standards and only then you invite private initiative in to come up with matching plans. Our nation has spent a lot of time and money in planning and re-planning, until the world inevitably changes and you have to plan again. If private initiative came up with a new idea, it was by definition suspicious. This is all based on the old system of mistrust about the true intentions of investors, bankers, developers, builders and me, a real estate developer, on the other side of the table.

It is too easy to discard all public projects as bureaucratic. Compare pictures of the city in the seventies with today's and you see the difference. Cities are much more attractive, save and liveable than ever before due to public control and proper city management, but the cost were just too high and we could have done so much more.

I also blame the private sector that they avoided the discussion with the public institutions and preferred the practically of their own wallet over principles about a better environment. They in the end proofed that the bureaucrats were, in some way, right about their suspicion. You ask, we build, even if the end result is rather disappointing. Architecture born out of compromises has no heart, is my lesson in professional life. The neighborhoods of the seventies and eighties still carry those marks. I have had, and Hans I know has the same experience, many discussions with our old student friends on both the public and private side about the ultimate responsibly we still carry towards a better world. Surprise us with your geniality, not your stubbornness.

This system drove me absolutely bonkers for many years, until I decided to totally ignore both sides and draw my own plan. To forge coalitions with unlikely partners like the future occupants of my buildings, non-real estate investors and local communities in order to achieve my goals in a more acceptable time frame. I refer the interested reader to my presentation "Real Estate Development according to Che Guevara"[3].

Hans however, again being the smart one, choose to be more patient and became the organizer for complex projects for municipalities, housing corporations and companies in his role as gang leader of the Brink Group. By the way, bureaucracy is not a privilege of the public

sector, large companies are worse than the public sector, and he knew how to deal with it and make a living out of it. If you cannot beat them, become their advisor. In this way time is on your side. This is not only smart; at the end you achieve much more than by battling the controversies. Knowing his creative mind, I am sure he had his moments of desperation as well, but he deals with it privately and kept on being the jovial, smiling professional.

The collapse of the Berlin Wall in 1990 not only had a profound effect on the east (or left) side of that wall, but as much on the west (or right) side. Public funding was greatly reduced from the late nineties on and new market forces were stirred in order to deal with the insatiable hunger for more real estate. Private initiative in urban development, by the way, is the normal in the last 3.000 years of urban civilization. The post-war period with its specific dominance of public institutions was the exception and will most likely not return in the next 3.000 years.

All of a sudden here was a new reality in which the public and private side became, though nervous, bed-fellows in achieving a common goal: build as much as possible because the demand is endless and instead of fighting each other they joined forces and both made money with real estate development. This is the time of very confusing Public Private Partnerships in which the separation of responsibilities of both sides became very vague and Public and Private shared the same goals and amplified each other's ambitions into an out of control building frenzy.

These were happy times for real estate entrepreneurs like Hans and me, you would think. I have met Hans many times and we had many inspirational meetings about the changes that were required to our beloved real estate practice. Many times he and I publicly warned about the uncontrolled building spree that occurred in the world of private office and shopping center development and the awkward competition between cities to outdo their neighbors in ambitious, but very unrealistic, urban growth scenarios. We warned about the ugliness of most real estate developments and the too close for comfort relationship that evolved between the public and private sector. This was economically a golden age for our country, due to the incredible increase in real estate spending and the availability of a tsunami of capital that rolled over the earth. Our industry and the public sector did a great job in screwing this unique opportunity, to really improve the built environment, up. I still have a hard time to explain to my children what exactly happened and why we were unable to timely stop many architectural accidents of that era. That is the problem with architectural accidents; it takes at least 30 years to get the wrecks from the public road.

And of course also miracles happened in those days. Wonderful projects, were realized and are still a thing of beauty, mostly due to goal driven architects, town planners, yes also bureaucrats, real estate developers and housing corporations. A new generation of just graduated idealists that concentrated on the quality of their work, not the greater, unachievable ideals of our generation. Nor Hans nor I do want to sound like the "I told you so" bystander. We really, occasionally, improved the urban environment.

Hans has always been a revolutionary, disguised in a suit. He is a change maker and always to be found in discussions about the improvement of the real estate industry, but more importantly the improvement of our country. We both share the passion for preaching about our ideals. He, again being the smarter of the two of us, was able to organize a captive audience of students, who were obliged to listen to him. I had to follow the hard way and earn the right to speech at conferences by being controversial and abusive. They mostly put me after the lunch, so I could wake up the audience. Hans had the privilege of a morning presentation when everybody was still attentive. And he never finished in time, so I had to limit my presentation. ("Can you make it short mr, Stroink we have 12 more speakers after you!?"). He just had more authority.

The revolution did create a new generation of architects, better educated. We kept on fighting for improvements after our student years, without hanging on to outdated ideals. His new graduate course "Real estate and construction management", although hopelessly wrong named, was a major improvement in creating a balance between plan and execution. I did not like the name because I prefer the initiating part of our profession, being a Principal or "Opdrachtgever", which I think is far more important than the process side,

amplified by the word "management". But that is only a side remark in the context of the real improvements in education he achieved. For instance by teaching the necessity to gather at least some logical data to better understand demand before realizing your real estate project. A true novelty in post war construction and not a luxury given the amount of spending involved in real estate. We are not talking peanuts here. Understanding the city is vital if you want to improve it. And by improving the organizational skills of the project managers that have to execute the plan. Since architects, generally speaking, are not world's greatest organizers. Ideals about a perfect environment are a great start, however if not properly managed, substandard living environments are achieved and we have plenty of those.

The revolution learned both of us to doubt all the institutional truths, political correctness and money driven logic that still governs the very conservative real estate industry, both on the private side and the public side. That has been the essential drive in a continuous work to improve the urban environment. We also became both part of the establishment, an unavoidable result for most revolutionaries. But if you cannot beat them, you must join them. Right and wrong, left and right, private and public, manager or designer, black and white, conservative or revolutionary it all is meaningless if you do not carry your heart in the right place and stay vigilant in improving the world. Like Hans.

Notes

[1] This was only possible due to the loyal faculty's coffee machine which produced the powerful stimulant to keep us going through the night. The coffee machine, our comrade in battle, caused the fire that destroyed the faculty building in 2008. This is an ironic footnote; it was the machine's act of protest, I think, against the lack of progress in the execution of our ideals, not noted until now. The faculty moved after the fire to a nice old building, with lots of ornaments and built of bricks, following the principles of the almost forgotten Delft School of Architecture.

[2] I was usually introduced as the Hans Brinker of real estate development. Americans suffer from a chronic shortage of cultural self-esteem and being architectural educated and from Europe (pronounces as JUROP) made my presentations extra convincing.

[3] Available on request.

Rudy Stroink is Partner of Dutch Spring, former director of TCN



One of the shopping centers (with a flag) I built in Los Angeles.



Prof. Spiro Pollais in the Netherlands

20 years trajectory

Spiro Pollalis

Hans de Jonge has been a colleague and a dear friend for long time. I have valued his knowledge, his expertise, his administrative skills and his dedication to the Department of Real Estate and Housing and to Bouwkunde.

In 1991, I took a sabbatical year from Harvard University to work with Santiago Calatrava in Paris. Prof. Alex Tzonis, my former colleague at Harvard, invited me to TU Delft to give a lecture and he introduced me to the Department of real estate and project management, as it was called at that time, and I met prof. Bas Menheere, prof. Frits Seijffert, and prof. Hans de Jonge. I appreciated Bouwkunde's dedication to real estate and project management and the flexible teaching schedule that allowed periods of time to be dedicated to a single course. So, a close cooperation started in both research and teaching that lasted over 20 years. Every year, I was visiting Delft for 2 to 4 weeks as a visiting professor, teaching real estate and management, using case studies with 30 to 120 students in my class. I have taught more Dutch students than students of any other nationality over my academic career!

Several of my Dutch students visited me for research projects for extended time periods at Harvard. Rick Huijbregts completed his doctorate at Harvard with me. Together with Hans de Jonge, we also served in doctoral committees both at TU Delft and at Harvard. Among our PhDs are prof. Peter Paul van Loon of TU Delft and prof. Andreas Georgoulias of Harvard.



City planning is management. It is management of space, of proximities and relations of capacities and projections of constraints of limited resources for creating an on-going concern. It is management of large sets of diverse real estate. It is creative, it is an art.

We never authored a joint book although we could on our many interests. We were spending our time, mostly in Delft, discussing leading-edge topics central to real estate and management. Our discussions focused on teaching, research and administration.

Case Studies at Bouwkunde

On teaching, our main focus was the use of case studies. I had adapted this teaching method for my real estate and project management courses at Harvard and it had proven quite successful. It was based on the case studies method of the Harvard Business School with a focus on the building industry. I had developed a series of case studies to fulfill the curriculum needs and more case studies were developed in cooperation with TU Delft. Because of the flexible scheduling, I was given the opportunity to visit for a few consecutive weeks and offer a complete course every year. Some of the case studies became classics and were discussed among students for years. Among them: the Bilbao Guggenheim Museum, the Cruzcampo Pavilion in the 1992 Seville Expo, the Petronas Towers in Kuala Lumpur and the roof of the Athens Stadium for the Athens 2004 Olympics.

In the late 1990s, I gave a part of the course remotely. One week I was present in Delft, then one or two weeks at Harvard using tele-presence and then the last week I was in Delft again. The class at Delft was large with more than 110 students but we were able to carry completely interactive sessions with questions and answers and lively discussions. At that time, the Internet connection was slow and only the Universities network could support the process. The setup was ad-hoc in one of Bouwkunde's auditoriums, as this legendary photograph shows.

The process was quite innovative and ahead of its time. In 1999 and 2001, two articles appeared in TU Delft's Delta newspaper: http://delta.tudelft.nl/artikel/elke-dag-een-nieuwe-case/6027, http://delta.tudelft.nl/artikel/afstandscollege/2637

In 2000, Rob Geraedts documented the process in-detail: http://www.gsd.harvard.edu/publication/remote-teaching-prof-s-n-pollalis-in-m2-educational-and-organizational-issues-facts-and-experiences/



The auditorium at TU Delft in the old Bouwkunde building. Prof. Pollalis teaches from his office at Harvard University. Two assistants are in the auditorium, one zooms on students and the other takes notes for grading.

Although the innovation in teaching had attracted most attention in the department, our discussions and interaction with Hans de Jonge were on research, the frontiers of practice and how research influences practice. Being active practitioners with leadership positions in both academia and in practice, we had much to talk, while we always compared our experiences in Holland and Europe with the USA. We also had faith in information technology and its impact on our field. Our discussions were at the school, in the evenings or visiting places. Among the most interesting visits was the tour of the SS Rotterdam that had been restored at that time by Hans' firm. We admired the vessel in the port of Rotterdam and discussed numerous construction details, concluding how similar is the restoration of a ship with the restoration of a building, both requiring solid expertise and skillful management. Sadly, was also toured the outside of the old Bouwkunde building after it burned down, where I had taught in most of my visits.

City Planning

Towards the end of our active cooperation, I started focusing on the sustainability of infrastructure and the sustainability of cities. I entered city planning from two diverse perspectives. First, for facilitating the city's inhabitants with the proper deployment of information technology in their day-to-day life, i.e., the creation of a smart city. This effort was epitomized when I was awarded the information planning of the new administrative city in Korea, leading a team of SK Telecom. Second, for creating a citywide system of synergistic sustainable infrastructure.

This effort was solidified when I was awarded the planning of the DHA City Karachi, the first sustainable city in Pakistan. The planning of this new city for 600,000 people was based on my multi-year research on infrastructure sustainability, at the Zofnass Program at Harvard.

City planning is management. It is management of space, of proximities and relations. It is management of capacities and projections. It is a management of constraints. It is management of limited resources for creating an on-going concern. It is management of large sets of diverse real estate. It is management to ensure the sustainability of the economy, of the society, of the natural world. It is creative, it is an art. So, city planning was a natural progression for the expertise that we had developed as managers and real estate professionals.

The Need for Sustainable Cities

The planning of new cities is not common in Europe. However, with the population explosion in parts of the world, like Asia, planning new cities is a must. For example, Pakistan, with 190 million people, has an annual population increase of more than 4 million. A large part of the population will live in cities, so there is a need for new cities but even the existing cities need an overhaul in both amenities and capacity.

Creating major expansions to old cities, or even creating new cities, is only half the objective. The planet cannot support more people living the way we live today with the current trajectory of growth. Land and resources become scarce and gas emissions cause sea rise from melting ice and extreme weather conditions including frequent flooding and reduction of rainfall in areas that may convert to desert.

A sustainable way of life is a must. Cities have a high density of population, which is highly desirable from an environmental point of view. People living in cities use less land, leaving land to nature to support wild life, land for recreation near nature, and land to be cultivated for the production of food. Furthermore, people in cities use fewer natural resources as a result of compactness and proximities. Cities allow compact networks of infrastructure, reuse of water, efficient disposal of solid waste, and extensive use of mass transportation. Compactness leads to even less space taken by infrastructure. Furthermore, cities promote a higher quality of life as a result of enhanced economy, amenities, and social interaction. Pristine lands near the cities add to the quality of life.

Compactness and proximities result in providing amenities at a cost of fewer resources, leading to less damage to the natural world and to the environment at large. So an increased percentage of the population living in cities of higher density is a step toward a sustainable way of life. The next decisive step is the development of sustainable cities. Thus we need to define the target: what a "sustainable city" is.

What Makes a City Sustainable?

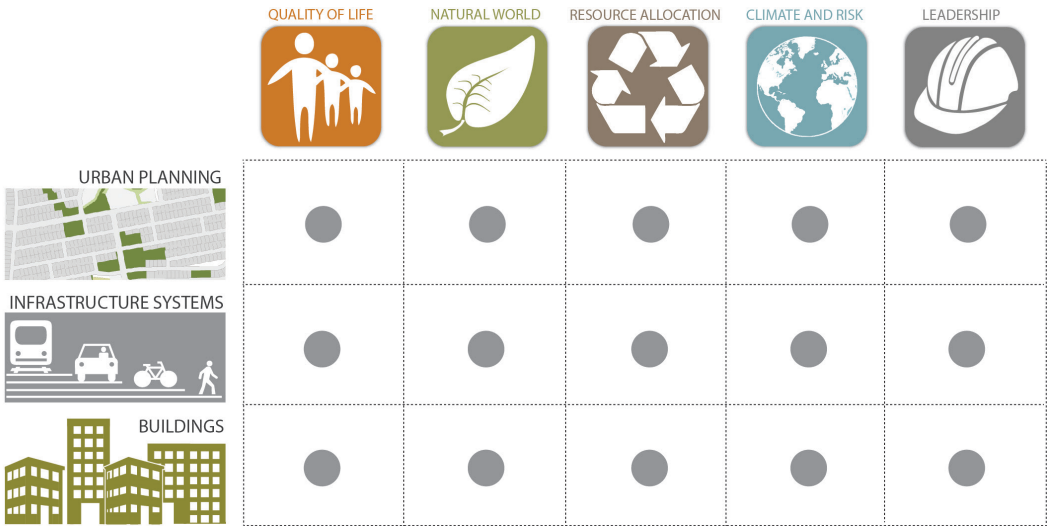
The research at the Zofnass Program, which I founded in 2008 at Harvard University, assesses the sustainability of a project along five dimensions. The first four of these are (a) the impact of the project on quality of life, (b) the impact of the project on the natural world, (c) the allocation of resources in the project, and (d) the impact of the project on climate change and how the project will cope with the risks of climate change. A fifth dimension (e) is the commitment of the project's leadership to sustainability, evaluated in terms of developing and implementing sustainable features.

A city is a project, and as such its sustainability is also defined in these five dimensions. Decomposing the city as a project, we distinguish three distinct parts that define its sustainability: (a) the planning of the city, (b) the infrastructure systems of the city, and (c) the buildings of the city.

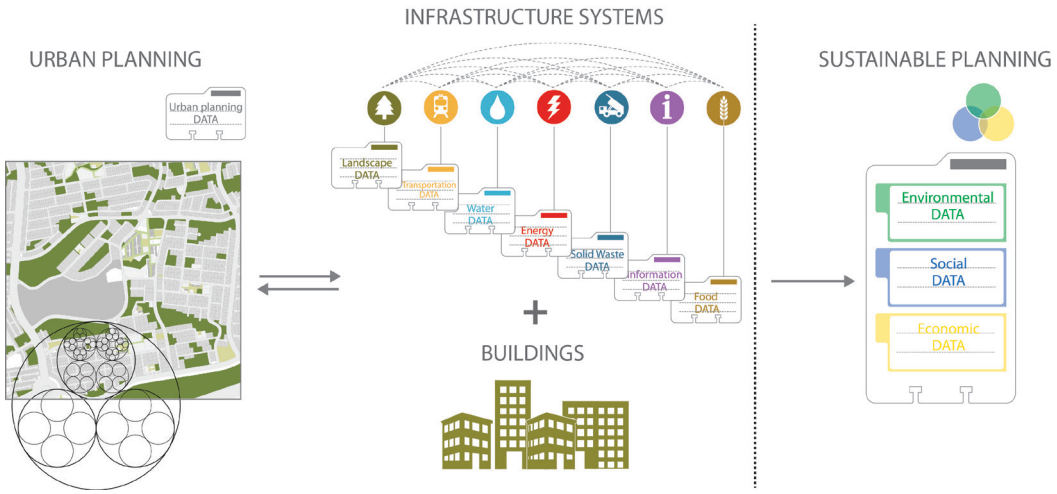
The planning of the city, its land use and the anticipated distribution of buildings, and the planning of infrastructure are fully integrated. The size of infrastructure systems depends on the demand and the location of the city's occupants, which translates to the demand from buildings and from the other infrastructure systems. For the cities of the past, it can be argued that this was an ordinary linear process. However, it becomes an iterative nonlinear process in planning the sustainable cities of today. Preliminary planning data and

sustainability considerations drive the initial decisions related to the required infrastructure. Then the infrastructure data and sustainability decisions become part of the spatial planning process and the allocation of buildings, and more detailed data are extracted and feed the planning process, always under the prism of sustainability and finance.

The synergies among the infrastructure systems introduce another level of iterations for even more optimal planning. After the needed iterations and the necessary changes in assumptions and decisions, the system reaches equilibrium, meeting planning, sustainability, and financial objectives. The process is complex and is driven by the expertise and values of the stakeholders.



Sources and Impact on Sustainability.



Urban Planning and Infrastructure Systems make Sustainable Planning.

Sustainability of City Planning

The planning of the city defines built and open space, land uses, and proximities. As such, the planning of the city sets the upper boundary of the feasible level of a city's sustainability along the five dimensions of the Zofnass assessment. Furthermore, it carries most of the weight for social and economic sustainability, as part of quality of life.

Sustainability of Infrastructure Systems

The sustainability of infrastructure systems has been the focal point of research at the Zofnass Program. Initially, it provided a rating toolkit for the sustainability of infrastructure projects, which has evolved into Envision®, a professional toolkit further developed by the Institute for Sustainable Infrastructure (ISI). Envision® is widely used in the USA for planning and rating infrastructure projects and for training sustainability professionals.

The Zofnass rating system for a project has been extended to define the sustainability of entire infrastructure systems and of whole cities, as a set of multiple infrastructure systems. This was a natural extension for a research program in the Harvard Design School, with its legacy in urban planning and urban design. In addition, members of the Zofnass Program are practicing professionals, actively involved in planning new cities. The result of this research is presented in the form of planning guidelines in the book *Planning Sustainable Cities: An Infrastructure-Based Approach*. The planning guidelines address the environmental, social, and economic sustainability of cities.

Sustainability of Buildings

The sustainability of stand-alone buildings has been the subject of research for quite a long time and has produced rating systems like LEED, BREAM, QSAS, Estidama, and others. These systems have reached maturity and offer dependable and objective ratings of the sustainability of buildings. Sustainable buildings are a significant and a required component of a sustainable city, since they reduce the consumption of materials, energy, and water and contribute to quality of life. Furthermore, the entire building stock of a city can serve as a component of infrastructure: as producers of energy, facilities for water treatment and storage, or nodes of information.

The planning of sustainable cities is fertile soil for our further collaboration with TU Delft and with Hans de Jonge. I always felt that the forced retirement at the young age of 65 do not preclude those who depart to continue being active in nursing fruitful ideas and spread knowledge, as they continue practicing and teaching, not in an organized lecture hall but in a broader sense. Wisdom cannot be contained.

Prof. dr. Spiro Pollalis MBA, professor of Design, Technology and Management at the Harvard Design School since 1986. He has co-developed the Envision® sustainability rating system, widely used in the USA. He is amongst others the chief planner for the new DHA City Karachi. His most recent book "Planning Sustainable Cities An Infrastructure-Based Approach," was recently published by Routledge, while his upcoming book "Gulf Sustainable Urbanism" is due in the coming fall.

Monika Chao-Duivis chose this picture because of the overwhelming beauty of the electricity pole. But why is beauty important and why should beauty matter with such functional objects? Thijs Asselbergs pointed to the answer given on the internet: Clinical Architecture Healthcare IT Blog:

'Why is Beauty important?

Let's go back to Vitruvius and the translation of the first two paragraphs in book one of De Architectura titled "On the training of Architects":

"The science of the architect depends upon many disciplines and various apprenticeships which are carried out in other arts. His personal service consists in craftsmanship and technology. Craftsmanship is continued and familiar practice, which is carried out by the hands in such material as is necessary for the purpose of a design. Technology sets forth and explains things wrought in accordance with technical skill and method

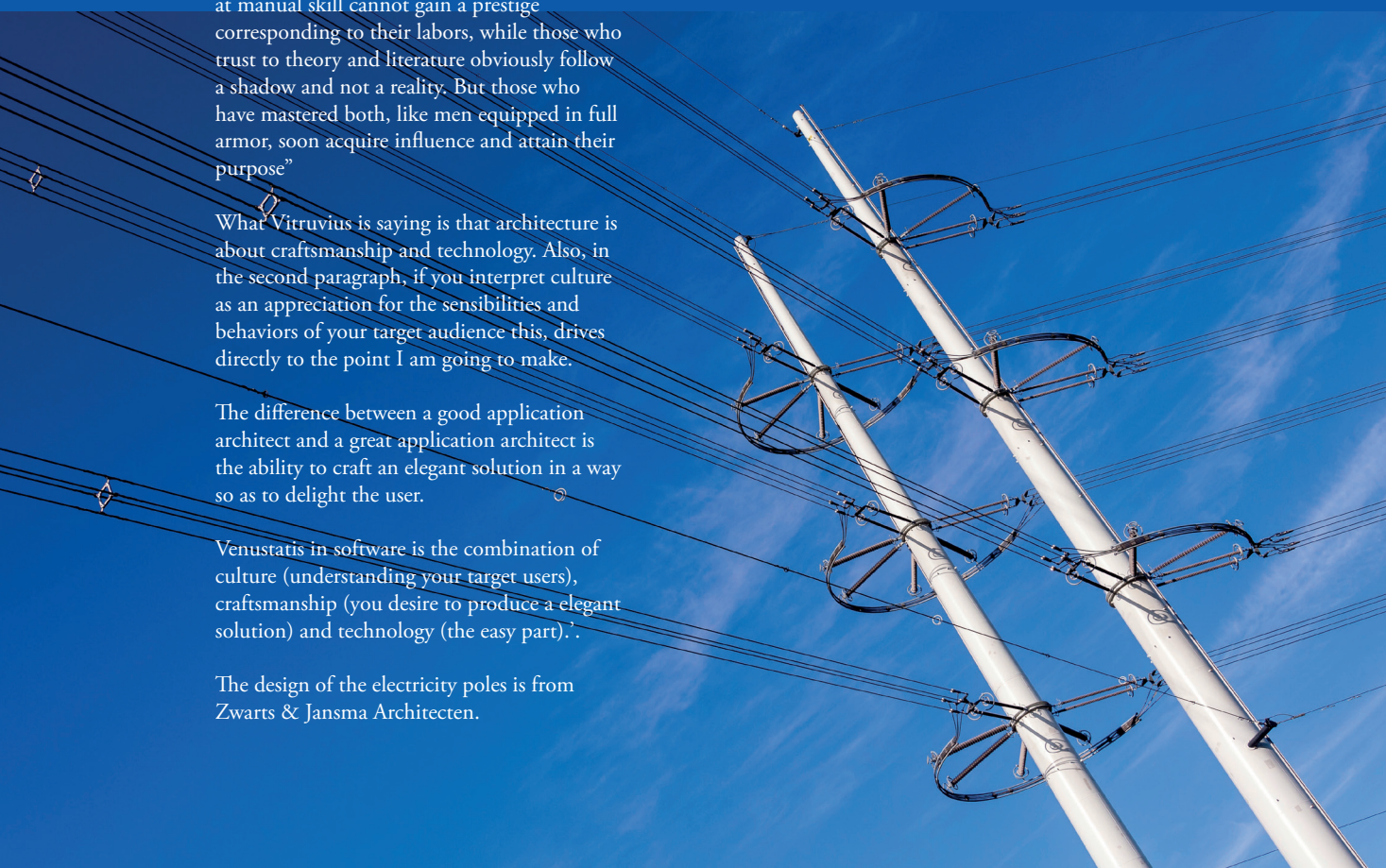
So architects who without culture, aim at manual skill cannot gain a prestige corresponding to their labors, while those who trust to theory and literature obviously follow a shadow and not a reality. But those who have mastered both, like men equipped in full armor, soon acquire influence and attain their purpose"

What Vitruvius is saying is that architecture is about craftsmanship and technology. Also, in the second paragraph, if you interpret culture as an appreciation for the sensibilities and behaviors of your target audience this, drives directly to the point I am going to make.

The difference between a good application architect and a great application architect is the ability to craft an elegant solution in a way so as to delight the user.

Venustatis in software is the combination of culture (understanding your target users), craftsmanship (you desire to produce a elegant solution) and technology (the easy part).'.

The design of the electricity poles is from Zwarts & Jansma Architecten.



Some issues on the doctrine of pre-contractual negotiations

Monika Chao-Duivis

1. Introduction

"In this Chair, students therefore learn how to solve complex real estate issues. This involves questions such as, 'How do you ensure that a certain level of quality is maintained?' and 'How do you streamline the collaboration between the relevant parties?'". This (and more) is said on the TU Delft website introduction page of Hans de Jonge. These questions are dealt with in the Delft curriculum not only from a management perspective but also from a legal and economic perspective as well as from the ICT world. In this way the curriculum of the Department Management of the Built Environment gives students an integral perspective on issues arising in the field of building activities.

To Hans's merit the Department has such a well thought out curriculum which allows students to leave the university with 'all round' knowledge. As a token of my esteem for the work of Hans I chose a topic related to the second question on the streamlining of collaboration. Collaboration takes place in the contractual phase, but in the pre-contractual phase parties often need to go through prolonged negotiations. During these negotiations parties are not contractually bound to one another, but they are also not completely free in how they may treat one another. In this contribution I will explain what this 'not completely free' means in Dutch law. I will do this using recent case law in the field of project development. In paragraph 2 I begin with the leading cases; in paragraph 3 the legal issues that rose from these cases will be explained shortly; in paragraph 4 recent case law will be used to illustrate some of these legal issues and in paragraph 5 a comparison to the European development in this field will be given and a conclusion formulated.



To Hans's merit the Department has such a well thought out curriculum which allows students leave the university with 'all round' knowledge.

2. The starting point: leading cases Plas-Valburg, De Ruijterij/MBO-Ruiters, CBB/JPO

In 1982[1] the Supreme Court of the Netherlands decided the following case. The city of Valburg had entered into negotiations with a local contractor for the construction of a swimming pool. At one point contractor Plas, who at the request of the council had incurred extra consultancy costs, made his price known. In a meeting of the mayor and the council of the city the mayor informed the council that Plas had the lowest bid. A few weeks later the council met again and suddenly there was a new offer, considerably lower than the bid from Plas, from a contractor not earlier involved in the tender. The council accepted the new bid. Plas goes to court and finds the Supreme Court on his side.

The Supreme Court decided that during negotiations three stages can be distinguished:

1. a stage at which a party can withdraw without further ado;
2. a stage at which a party can withdraw but must reimburse the other party's expenses ;
3. a stage at which a party can no longer withdraw. If he nevertheless does so, the court can order him to resume negotiation or reimburse the other party's expenses plus loss of profit (the profit that the other party expected to make by fulfilling the agreement). At this stage one party has led the other party to believe that the agreement will be entered into.[2]

This decision was followed by many others. Two of them invite special attention, because in those the Supreme Court adjusted/fine tuned the decision Plas-Valburg.

In the case De Ruijterij/MBO-Ruiters[3] the Supreme Court decided that in spite of the justified belief that a contract would come into being, there can be good reasons for breaking off negotiatons that will not bring the breaking party in conflict with the demands of reasonableness and equity. What should be taken into consideration when judging the question if acting contrary to reasonableness and equity is (1) the degree in which the party breaking off the negotiations has contributed to the existence of the justified belief that a contract would come into being; (2) the interests of the party breaking off the negotiations; (3) unforeseen circumstances. This way the question of the legitimacy of breaking off the negotiations was better defined.

In the second case, CBB/JPO[4], the liability in case of breaking off negotiations without a good reason was dealt with. It was judged by the Supreme Court that both negotiating parties are obliged to have their conduct governed by the justified interests of the other party[5]; that they are free to end negotiations unless this is unacceptable because of the justified belief of the other party that a contract would come into being or because of other (unforeseen) circumstances. These rules are the criteria when judging the obligation to pay damages in the case of breaking off the negotiations. And these criteria are to be used strictly and with restraint. The last sentence implies that judges are to exercise restraint in judging the question of damages.

3. Legal issues

The decision in Plas Valburg was welcomed in the legal community, but at the same time many questions were raised. From the doctrinal point of view the most important issue was the legal basis of the obligation of the liability which the Supreme Court assumed to exist. There is not yet a contract in the phase of negotiating, so that could not be the basis. Is the behaviour tortious? This qualification of behaviour is possible in certain circumstances, but in general this qualification was considered to be too far reaching. The current prevailing opinion is that the basis of this obligation is to be founded upon a third ground: reasonableness and equity as codified in art. 6:248,2 CC.[6/7]

Other legal issue were: whether the Supreme Court distinguished three or two phases. This problem is not really considered to be a problem anymore; the current, prevailing opinion is that two phases are to be distinguished.[8] In the first phase the principle of the freedom of contract dominates the relationship and the second the question is about the extent of the liability. What was meant with the obligation to reimburse the other

party's expenses as well as loss of profit? How can that be related to the contract parties were negotiating but did not yet conclude? The Supreme Court answered that question in VSH/Shell[9] by judging: that reimbursement could also be determined by *the kind* of contract which was subject of the negotiations. Another issue is the judgement that parties are ordered by the Court to continue to negotiate. Are they willing to do so? Can this be enforced? More than once Courts have ordered parties to continue to negotiate. It is important in such cases that the obligation is not formulated too broadly, but that the judge circumscribes the object of negotiation. And of course the obligation must make sense: if the building that was subject of the negotiations has been sold to a third party, the obligation will probably be pointless.[10]

Issues of a practical nature that often occur, are those concerning whether or not there was justified belief in a contract coming into being; when is there a situation that breaking off is allowed without liablity; are there damages?

Let us look at what recent case law teaches.

4. Recent case law on breaking off negotiations in project development cases

If and when parties have reached a contract the breaking off of the relationship is not subject to the doctrine on pre-contractual liability, but to contractual rules and liability. These rules might be more advantageous for one of the parties who wants to terminate the relationship (contract). The judge is than faced with the question whether or not there is a contract and if so does the contract allow for the contract to be terminated. Another situation that is close to this situation is that sometimes there is a pre-contract governing the negotiations and containing a clause on termination.

What if these clauses are ambiguous? Strictly spoken, this is not an issue of breaking off negotiations but of how to interpret what parties have written and said? Which criterion determines how words are to be understood? This matter played in two recent cases: Appeal Court 's-Hertogenbosch, 12 January 2016[11] and in District Court Rotterdam, 15 July 2015.[12]

In the Netherlands there are two important rules of interpretation. The first one is called the Haviltex rule[13]: in interpreting terms of a contract the literal meaning of the term is not decisive, but 'the meaning the contracting parties could mutually reasonably attach to the stipulations in the present circumstances and that which they could reasonably expect from each other to that matter'. In this respect it can be important 'to which social circles the parties belong and what legal knowledge could be expected from such parties'. The other important rule is the so called CAO rule: according to this rule the literal words are the determining factor for interpretation and not other circumstances.[14] This is the case when the text to be interpreted was written by third parties and the contracting parties were not involved in the writing. The difference between the two rules should not be exaggerated however, because with the CAO rule the starting point should be that in the actual situation all circumstances can still play a role.[15]

In the case of the Appeal Court 's-Hertogenbosch the words of the termination clause had to be interpreted. The Court judged that this had to happen according to the Haviltex rule. This is also the case, the Court said, when both parties are professionals in which situation the literal meaning of the words might sometimes be very important. The outcome of this case was that the party terminating the contract was entitled to do so. The argument of the other party, stating that this was a case of unreasonable breaking off of negotiations, was not accepted. His defence against the claim for damages was rejected, because the termination clause was interpreted to allow the terminating party damages in case of non fulfilment by the other party.

In the case of the District Court of Rotterdam[16] a building corporation and a foundation of homes for elderly entered into a preliminary rental agreement containing a clause on damages in case one of the parties would decide to terminate the contract. When the corporation terminated the contract, because of financial difficulties, the foundation claimed damages (over a million euros). The corporation was of the opinion that the clause was no more than an intention come to an agreement

on damages. The judge used the Haviltex rule again and added to this that this rule is applicable notwithstanding the fact that the parties are professional with legal assistance and notwithstanding the fact that the clause has far reaching consequences. The literal meaning of the words read in its total context is important, but that does not exclude the possibility that another than the literal meaning of the words is applicable in a particular case. If the party, defending the non literal interpretation, has shown enough ground to be allowed to prove his point, the judge has to give him that opportunity.

What is important is to understand (1) that the literal meaning is a starting point, (2) but will be followed by application of the Haviltex rule and (3) if a party defends a certain non literal interpretation with sufficient grounds this party will be allowed to prove his point on the interpretation.

Matters of the interpretation of words and actions occur in many situations both during the contractual phase and in the pre-contractual phase when there is no contract yet but words and or actions have to be interpreted. The rules and examples given in the case law are guidelines.

An example of a case in which breaking off the negotiations was allowed is given in Appeal Court 's-Hertogenbosch, 22 of March 2016.[17] The parties were a project developer and a holiday organisation and the object of their relationship was an office building to be built for the holiday organisation. The circumstances that made it so that the breaking off of the negotiations was allowed, were: it must have been clear to the project developer that the organisation wanted to economize as much as possible compared to the maximum price; it was agreed upon that a contract might not be reached; it was not so that the holiday organisation was to be blamed for not reaching said agreement; the project developer was not willing to adjust parts of the design so that the economizations could be realised. Given these circumstances the holiday organisation was allowed to terminate the negotiations if the costs made by the project developer would be reimbursed. There is no ground, according to the Appeal Court, that the foregone profit from the project developer should be paid as well. The relationship was disturbed and further conflicts were to be expected.

In the case decided by the District Court of Midden-Nederland on the 24th of February 2016[18] the topic was the building of a villa on Ibiza. Parties were communicating from April 2013 till the beginning of 2014, but did not reach an agreement. The District Court took as a starting point the rule given by the Supreme Court in CBB/JPO. Parties are free to break off negotiations but they have to take into consideration the justified interests of the other party. The Court judged that if the terminating party has contributed a lot to the existence of the justified belief of the other party that a contract might come into being for example by making investments, the chance is greater that terminating, without offering to compensate the damages/costs, is not allowed. In this case the judge established that the contractor had made costs far beyond normal acquisition costs. These were caused by the client who had asked the contractor to travel abroad for design purposes and permits. The client had never suggested that the contractor should make fewer expenses. So the termination was deemed acceptable but the client had to bear the costs.[19]

There are more recent cases that can be discussed, but given the limited amount of words I leave it at this, hoping an impression of the current situation has been given.

5. European law

There is no European law on contract law comparable to the law on procurement. But scholars (the Commision on European Contract Law) have come together in 1999 and have written The Principles of European Contract Law (PECL).This is not a law nor a guideline, but the opinion of several scholars in Europe who were of one mind.

On the topic of negotiations they wrote the following:

II. – 3:301: Negotiations contrary to good faith and fair dealing

(1) A person is free to negotiate and is not liable for failure to reach an agreement.
(2) A person who is engaged in negotiations has a duty to negotiate in accordance with good faith and fair dealing

and not to break off negotiations contrary to good faith and fair dealing. This duty may not be excluded or limited by contract.
(3) A person who is in breach of the duty is liable for any loss caused to the other party by the breach.
(4) It is contrary to good faith and fair dealing, in particular, for a person to enter into or continue negotiations with no real intention of reaching an agreement with the other party.

Comparing this to the Dutch system one notices that the starting point seems to differ. Very explicitly it is stated that a person is free to negotiate and is not liable for failure to reach an agreement. The case law in the Netherlands might give the impression that liability is more important than the freedom to negotiate and not enter into a contract. However that is caused by the fact that judges have to judge in situations where one party will say that terminating was not allowed and there is room for damages. So the context differs.

The second point is that the possibility of claiming foregone profit is not a part of the PELC text. The Dutch rule on foregone profit differs a lot from the one in the PELC text.

Is it important that the European Union get a communal Civil Code so that for example in all countries of the Union it is clear that foregone profits may or may not be claimed? Abstracting from the political climate at this moment, I have my doubts about the necessity of a communal Civil Code. The differences must not be exaggerated and do not seem to hinder international trade.

6. Concluding

My last words are for Hans de Jonge. I have always found him an enthusiastic teacher, a pleasant colleague whom one could call upon and who is interested in other people. I will miss him in Delft, but I am sure we will keep on meeting each other in the exciting field of real estate!

Monika Chao-Duivis is professor of construction law at the Delft University of Technology anddirector of the Dutch Institute for Construction Law.

Notes

[1] HR 18 juni 1982, NJ 1983, 723 (m.nt. C.J.H. Brunner). This is preceded by other cases in which the outcome was different. The idea of pre-contractual obligations has however been part of Dutch case law since the Supreme Court decision of 15 November 1957, NJ 1958/67 (Baris/Riezenkamp). In this case the Supreme Court decided that parties, when negotiating a contract, enter into a juridical relationship dominated by the principles of reasonableness and equity, which imposes on each of them the duty to take into account the others' reasonable interests. (Resume taken from Contract Law in the Netherlands, A. Hartkamp, M.M.M. Tillema, Kluwer Law International, The Hague, 1999, p. 71.) The qualification of the relationship as a juridical one has been heaviliy disputed and is still not yet unanimously accepted; see: Asser/Hartkamp/Sieburgh 6 nr. 192, Kluwer, Deventer, 2014.

[2] This resume is taken from A Practical Guide to Dutch Building Contracts, M.A.B. Chao-Duivis, A.Z.R. Koning, A.M. Ubink, Den Haag, Instituut voor Bouwrecht, 2013, p. 9.

[3] HR 14 juni 1996, NJ 1997, 471 (m.nt. H.J. Snijders); BR 1997, p. 695, m.nt. M.A.B. Chao-Duivis); ECLI:NL:HR:1996:ZC2105 .

[4] HR 12 augustus 2005, NJ 2005, 467; ECLI:NL:HR:2005:AT7337; BR 2006/82, m.nt. M.A.M.C. van den Berg.

[5] And by other rules possibly.

[6] Art. 6:248 CC: 1. A contract not only has the juridical effects agreed to by the parties, but also those which, according to the nature of the contract, apply by virtue of law, usage or the requirements of reasonableness and fairness. 2. A rule binding upon the parties as a result of the contract does not apply to the extent that, in the given circumstances, this would be unacceptable according to standards of reasonableness and fairness.

[7] See Asser/Hartkamp & Sieburgh 6-III 2014

[8] See Asser/Hartkamp & Sieburgh 6-III 2014, nr. 207; however in Appeal Court 's-Hertogenbosch 22 March 2016, ECLI:NL:GHSHE:2016:1067, the Court talks of three phases.

[9] HR 23 oktober 1987, NJ 1988, 1017.

[10] See Asser/Hartkamp & Sieburgh 6-III 2014, nr. 195.

[11] ECLI:NL:GHSE:2016:48.

[12] ECLI:RBROT:2015:5067.

[13] Supreme Court 13th of March 1981, NJ 1981, 635. Translation taken from Hartkamp/Tillema, p. 96.

[14] Supreme Court 17th September 1993, zaaknr. 15064, ECLI:NL:HR:1993:ZC1059 (Gerritse/Hydro Agri Sluiskil), NJ 1994/173.

[15] Asser/Hartkamp & Sieburgh 6-III 2014/373

[16] Rb. Rotterdam 15th of July 2015, ECLI:NL:RBROT:2015:5067.

[17] ECLI:NL:GHSHE:2016:1067.

[18] ECLI:NL:RBMNE:2016:940.

[19] For more details on all mentioned cases consult the cases themselves.



Bilbao, 1998

Centre for Process Innovation in Building & Construction (CPI) 1998 - 2015

Jelle Koolwijk, Rob Geraedts

TU Delft and TNO have officially established the Centre for Process Innovation in Building & Construction (CPI) in 2005. The Knowledge centre had the primary objective to improve innovation in the Dutch construction industry in the field of building processes by means of program and demand driven scientific research, the implementation in practice and knowledge transfer. The establishment of this centre was preceded by a long preparation time.

The start

Hans de Jonge, being a great initiator, stood at the cradle of the CPI. In 1998 our department travelled on their yearly excursion to Bilbao, amongst others to admire the work of Frank Gehry, Norman Foster and Santiago Calatrava. However, this journey encountered some problems. At the same time the Faculty of Architecture in Delft had to welcome some important international guests because of the six- yearly international research assessment. Hans de Jonge, Kees Gerritse, Alexander Koutamanis and Rob Geraedts had to be present. Later on they would also travel to Bilbao and join the group. In the euphoria of excellent inspection results, they got stuck at Zaventem airport. The airline company Sabena refused them taking off because of time overrun. With a last glance at the bus with passengers that drove away to the airplane, they





CPI focuses on the development and implementation of new innovative concepts of regulating processes and collaboration, e.g. by supply chain integration, lean construction and building information models.

centre for process innovation in building & construction
cpi

decided to wait for the next flight in the passengers lounge. The waiting period was spent very well by brainstorming about the possibility of establishing a new and unique knowledge centre for building process innovation in Delft. The outline of this centre was drawn with a marker on one of the available paper napkins on the table. The rest is history.

Innovative concepts

For more than 10 years the knowledge centre has been an important central place for clients, architects, advisors and front-runners from the construction industry to meet and to join forces in the field of construction process innovation. Its main focus is the development and implementation of new innovative concepts of regulating processes and collaboration forms, amongst others by supply chain integration, lean construction and building information models.

Impact

The knowledge centre CPI has had great impact on construction in the ten years of her existence. The centre was deeply involved in the first supply chain integration between a housing association and the other partners in the chain, like contractors, suppliers and advisors. It was due to the vision and commitment of Hans de Jonge who convinced the parties involved to implement this new way of collaboration. Meanwhile supply chain integration has been generally accepted in The Netherlands. The CPI has been involved in several projects by closely collaborating with partners in the field. Furthermore the program Supply Chain Integration has led to many publications and a PhD research. The CPI influenced the development of suppliers assessment systems in construction. Commissioned by Aedes the knowledge centre made a manual to support actors involved to develop this type of assessment systems. CPI contributed in the field of information management by BIM workshops, a manual and a PhD research on the relation between BIM and supply chain integration.

During those 10 years of the CPI all parties involved unanimously state that this knowledge centre has delivered an important contribution to professionalize construction processes, the collaboration in the supply chain with the ultimate goal to place the client and user at the centre. This valuable knowledge centre was never established without the stimulating and energetic initiative of Hans de Jonge.

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Ir. Jelle Koolwijk is assistant professor of DCM at the same department.



TU Delft



Public commissioning

Marleen Hermans

I am very happy to contribute to this Liber Amicorum at this very special moment in your life. It is a pleasure to write for someone who has always been there through my working life, and who is, I am so proud of that, my double colleague and someone I consider to be my friend.

The Government Building Agency (GBA) ('Rijksgebouwendienst', RGD) offices at the Kennedylaan in The Hague is the place where you were working when I was preparing my Master thesis at TU Eindhoven. My thesis was about developing a feedback model for maintenance data of office buildings. My question to you was whether the GBA as a large, professional real estate owner had empirical data on maintenance - executed rather than planned - in relationship to the performance of their stock. The answer was 'no', but I remember a bubbling, enthusiastic session that impressed me enormously. Even at that time we recognised that lack of reliable 'as is' information is one of the major challenges and misfits in our industry. A misfit that needs solving to facilitate well-founded decision making. And ever since then, I have been lucky enough to meet you and be able to share thoughts with you and thus develop my vision on this strange business called the construction and real estate industry that we both are in. A business that has its own characteristics, quite unlike the 'normal' consumer industry.



Providing sound and reliable information is one of the major challenges to that needs solving to facilitate well-founded decision making

PhD Committee – popping up the 'why' question

You were a member of my PhD committee. My PhD was, how timely, on predicting the performance and deterioration of buildings and building components. And typically, you were asking me the only question that I had no answer to: "From the perspective of a building occupant, what is the relevance of deterioration information and maintenance costs as compared to the total occupancy costs?"

I must admit that I had never thought about that before. You taught me right then and there to always have the relevance of your work on the top of your mind. In current day Simon Sinek jargon: what is the answer to the 'why' question? And, when diving into any research question, the one most easily forgotten. A valuable lesson! To me, today it translates into an inventory of stakeholders, their motives, the context and culture in which a problem needs to be solved and the organisational background in which an implementation needs to be embedded. All relevant issues in determining the potential success of a solution to whatever question you are trying to answer. Sometimes, or maybe even often, more important than the technical solution itself.

Gifted key note speaker and chairman

We met again in the international research network CIB W70, where my first employer, Ton Damen, organised a conference in Amsterdam. I was in many conferences within and some outside the Netherlands where you were the chairman or key note speaker. Without exception, you had people being fully alert and listening to what you had to say. So why are people always on the tip of their chair whenever listening to you? Firstly, because you really know the ins and outs of our business, which is felt by anyone in the audience. This guy knows what he is talking about! Secondly, because you always have tangible examples at hand, and you know the details of the examples you show. So, in fact, they are yours. Thirdly, although well prepared, you never read from paper, you don't memorize, you just tell a story where the slides inspire you and your audience. Fourthly, you are personal in your story, you always relate to the conference theme, to the presentations other people held before you or to the work or projects of the hosts or other people in the audience. Which, of course, triggers people and draws them into your story. And last and in my opinion quite important, you always put in humour. Not as a well prepared joke or stand-up comedy, but making a somewhat bold statement, sometimes taking yourselves or the audience not to seriously. And all this, together with your charisma, leads to authenticity. And authenticity touches people. So what did I learn from that? Let's say, I try to copycat some of your ingredients. But am well aware that I will never be anywhere close to touching and grabbing an audience the way you can. Mastery should be acknowledged.

Working together in research &development

I worked together with your earlier close colleague George Ang in CIB W60 on the Performance Concept in building. It was with you, I guess, that George developed the first more or less performance based contracts in the Netherlands. That was in the after days of the Parliamentary Inquiry in the building sector, establishing a clear need to reform our sector. Similar to the Design-Build-Finance-Maintain-contracts that I later helped to establish , of course those first performance based contracts had plenty of room for improvement. Their financial structures did not always work out the way they should. But, in my opinion, the guts required to enter into new collaboration models is a lot more important. And, my dear Hans, you really have stimulated the sector to change in many different ways. Establishing networks, building new organisations and designing new concepts. Plenty of examples. In doing so, you show perseverance and creativity and keep looking for possibilities rather than for difficulties. You have an open eye for the interests of all stakeholders and people involved. At the same time you are critical, careful and balanced when developing and implementing new ideas. Through the years, we spent quite some hours discussing issues related to the renewal of processes and process innovation in our sector, thinking about strategies how to approach developments. And up to today, every now and then, I walk in to your room, at the University or at the Brink group, to ask for your input on any matter I am dealing with or to just share my ideas with you.

Private Finance Initiative & Design Build Finance Maintain

Around 2002, I started working at the Government Building Agency, first as a consultant, later as a civil servant employed by the GBA. This Agency had started experimenting with new types - more performance based - collaboration,. Wim Franckena, director of Public Private Partnerships asked me, based on my activities within CIB W60, to help the Governmen Building Agency



Ministry of Housing, Spatial Planing and the Environment (VROM) Building, the Hague (Photo: Chantal Nederstigt)

to develop one of the most far stretching types of project delivery, the Private Finance Initiative, in the Netherlands referred to as 'Design Build Finance Maintain and Operate' contracts. With a small and dedicated team of enthusiastic people we dived into this interesting new topic. From the start, it was clear that these new types of contract would not only change project management itself, but also the organisation and goals of the GBA as a real estate organisation, the required competences of the project team involved, decision and assessment models, the processes and procedures both within the GBA and client – owner relationships, client – market relationships, procurement processes, the governance and accounting structures, the financial systems, risk assessment etcetera. Rather than introducing an instrument, we introduced a new way of thinking and working, and were – but also this one is in hind sight – smart enough to also start an introduction programme for both the GBA employees and clients on the ins and outs of Design-Build-Finance-Maintain and Operate (DBFMO)-contracts and set up a whole system for knowledge management.

Dutch Construction Client Forum ('Opdrachtgeversforum')

At the same time (around 2005), together with – again - George Ang you established the Dutch Construction Client Forum (DCCF) – also called Client Forum or simply The Forum - with Peter Jägers, the Director General of the Government Building Agency as a first Chair. He asked us – you and me – to write the business plan for this forum. Together we interviewed a series of stakeholders. We discovered we work together quite well. You being busy as always, having an impossible agenda, but knowing our business inside out, politics, sensitivities, developments. And me being able to translate our findings and your input into a plan that matched both our views. From that point in time, together we prepared the meetings of the Dutch Construction Client Forum. We had fun and appreciated each other, both in work and in person. Articulating the relevance of client – market relationships in the construction sector, and comparing the stages of development of each of the

organizations in the Forum, also revealed the relevance of the work I was doing for the GBA to me.

I think the DCCF is one of the many important networks and – informal – organisations you helped to establish. The adage 'procurement is the key to reform' resembles the raison d'être of this group, pointing towards the responsibility the group of public organisations feels for creating a healthy and quality driven building sector. You inspired the steering group of directors of large public organisations, such as Dutch Highway Agency ('Rijkswaterstaat', working on Transport and Public Works), 'the GBA', 'ProRail', Dutch Railways, housing associations, hospitals, universities, and water authorities to actively develop new ways to collaborate with the construction sector, setting the agenda together with the chairman. You also chaired their annual Diner Pensants, finding inspiring programmes and locations year after year. In the 10 years that you were the prime counsel of the Forum, the Forum has grown into a respected platform, and the first and single point of contact for all issues relevant to public commissioning in the building industry. They let go you as an advisor only reluctantly, when you thought it was time to pass on your task to me.

It is more or less around 2003 that 'public commissioning' became my dedicated work field. Later on, I gave up my consultancy firm and became a manager at the Government Building Agency , first heading the Public Private Partnerships Advisors team. We had many discussions on our work at that time, you being anxious about the 'finance' element within the Design-Build-Finance-Maintain-contracts, though a strong supporter of performance based contracts. At the same time you were always asking about the ability of both clients and suppliers to actually 'live' this new type of arrangement and asking the GBA how they were going to enforce public value in these types of contracts.

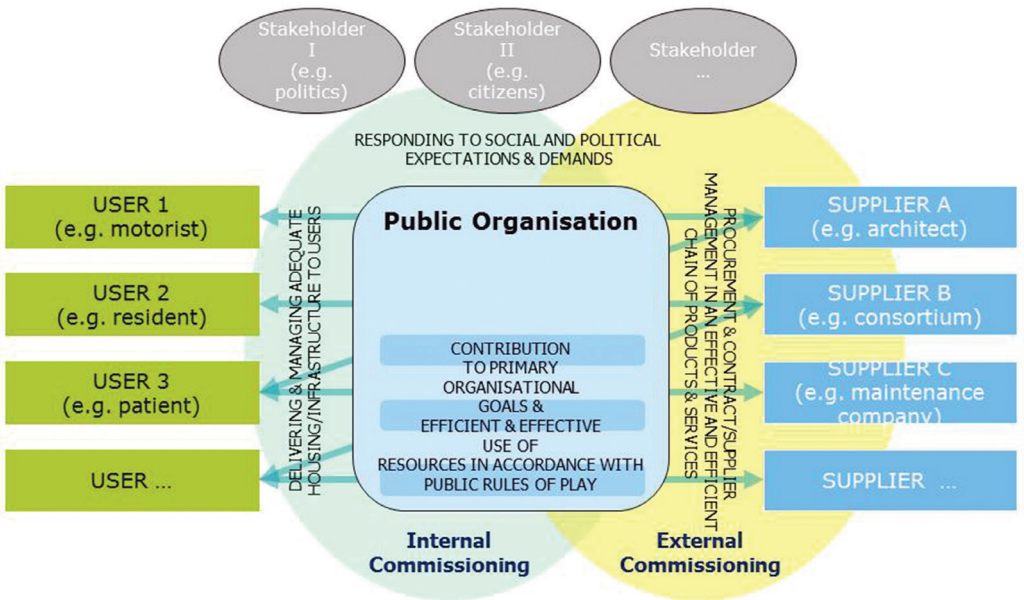
Around 2007, I was asked to become the head of the new Procurement Centre of Expertise at the GBA . Next to this formal position, I also was asked to develop the new business plan for the GBA . The connection between the two being the new market approach the GBA wanted to organise itself around. Discussing what would be the 'core' tasks of the organisation and which tasks could– under specific conditions – be brought to the market. Design work, drafting specifications, engineering work were among the activities that would in those years be more and more outsourced. I You were involved in these discussions as well, discussing with the management team the essence of the GBA was in your opinion. Your Corporate Real Estate Model [R1]proved a good basis for discussions. The relevance of this discussion was underlined by the removal of the Ministery of Housing in 2010 and the Government Building Agency was translocated to Internal Affairs. Thus, the focus automatically was more on efficient accommodation of civil servants, rather than on the monetary value of public assets or the socio-cultural value of the enormous public building stock.

Brink Groep and Public Commissioning in Construction Chair

Four years ago, finally, I had my first opportunity to work together with you as colleagues, when I left the Government Building Agency and started to working for the Brink Groep. My prime field of interest is the development of new collaboration forms, policy advice and business development. Together we now work on business development themes for the Brink Groep as a whole, on policy advice projects, and, a little more recently, also on managerial issues.

Only one year after I started working for the Brink Groep, the new Chair of Public Commissioning in Construction was established by the Dutch Construction Client Forum with you as their main advisor, at TU Delft. I was appointed to be the chair, and I am very proud that now we are even double colleagues, both at TU and at the Brink Groep.

So what did I take to my Chair and to the day to day activity that is strongly related to our work together? The scheme that presents the domain of public commissioners was the central graph in my inaugural speech. It illustrates that the client – market collaboration, which of course is the heart of public commissioning, should explicitly and transparently contribute to the primary organisational aims and be effectively and efficiently designed.
Furthermore, client organisations should clearly facilitate



The domain of public construction clients (Hermans, 2014)

their user groups. Therefore, public commissioning should also reflect the way a client organisation wants to serve its clients. A public organisation is always embedded in a political and societal context, where the contribution to public values and principles of good governance should guide public commissioning processes. In a way, this model is quite similar to your own Corporate Real Estate Model, where the user perspective, contribution to societal needs, efficiency and effectivity are key as well.

Friendship

Next to all business related interactions, there is also Hans as a friend. When driving back home after a Client Forum meeting, we chitchatted about everyday life, about Alexandra den Heijer's PhD – in full progress at that time -, your grandchildren (one of them being of the same age as my youngest daughter), my kids and how to combine kids and work.

You were there to celebrate significant steps in my career, but also always had and have a listening ear when significant stuff happens in my personal life. When I was reconsidering my career, and was kind of lost regarding what a next step should be, you put me back on track. Basically, you told me just to be me. Telling me that innovation, content, and not managerial stuff is where my heart and main contribution is.

I hope that, every now and then, for instance in recent months when sadness struck our firm with the loss of Paul Beijersbergen, I have been able to show you my friendship as well. Because being who you are, so busy all the time, feeling responsible for so many things, sometimes it seems Hans de Jonge considers himself a working machine rather than a human being.

But in the end, Hans, it is who you are, and what you have brought to me and so many other people, that makes it so worthwhile to be around you. Thank you so much for that, and above all, for being my colleague and friend.

Prof. Dr. Ir. Marleen Hermans is consultant at the Brink Groep and professor of Public Commissionership at the Department of Management in the Built Environment, Faculty of Architecture TU Delft.



Rotterdam, 2008

Muddling through

Rizal Sebastian

"What does it mean? Is it even proper English?" Hans and I stared at each other for a second in one of our consultation meetings during my PhD research. We were discussing similarities between designing and managing, and we came across a writer who argued that both activities relied heavily on 'muddling through'. A glimpse at the Cambridge English Dictionary told us the meaning of this term as "to manage to do something although you are not organized and do not know how to do it". We both smiled because we knew that in fact, we face many situations in life when we just have to muddle through on our own. Conducting PhD research is certainly one of those situations. Many PhD graduates and scientists claim that perseverance and determination are among the most important ingredients in their research experience.

'Muddling through' makes even more sense for both Hans and me who live within two worlds at the same time – science and practice. No matter how hard you try to plan and organize, you are often caught unprepared as things don't go the way you expected –sometimes with disappointments, other times with excitements. Two things remain in those situations. First, a new opportunity always comes along. I am grateful to Hans for letting me take various opportunities during my PhD research, such as cooperation with other universities and companies, and involvement in European research projects. Second, it is always encouraging to have somebody beside you to muddle through together. Hans' tight schedule did not allow him to provide extensive guidance during my PhD research, but he was there at the most important times of my endeavour and career – the times when I was unsure of which option to take and how to do it. We had agreements and disagreements, and



It is always encouraging to have somebody beside you to muddle through together.

sometimes we just didn't know the answer, but Hans supported me throughout.

As Hans is entering a new period as Professor Emeritus, I wish him inspiring times with families, friends and colleagues. I'm looking forward to be there whenever he needs somebody for muddling through together in science or practice in this fresh stage of his career.

Dr. Rizal Sebastian is a former PhD candidate under supervision of Hans de Jonge and currently Director of Research at DEMO Consultants BV and Coordinator of European research projects.



The Resident in the Hague: one of the cases that I studied in my PhD research.
An interesting example of the involvement of various star architects working at the same project. From upper-left clockwise: Cesar Pelli, Michael Graves, Sjoerd Soeters, Rob Krier, Adolfo Natalini, Frank Kardinal, Peter Drijver, Thon Karelse, Gunnar Daan and Bert Dirrix.



Antwerp, 2002



Dubai

Knowingly doing a PhD

Ellen Gehner

On the analogy of the main concept of my PhD - knowingly taking risk is making timely, justifiable and accountable investment decisions - I reflect on the process of doing my PhD: Knowingly doing a PhD is delivering a timely, justifiable and accountable thesis. In order to deliver my thesis knowingly we went through the following 'practices'.

Timeliness

Start your empirical research while your theoretical framework has not yet fully developed.

You wanted me to start a case study to examine the investment decision making process 'in the real world', while I opposed to this idea as I was afraid I could not justify what I was about to observe. It was finding the right balance between timeliness and justifiability in an iterative process of literature and empirical research.

Set intermediate milestones; in other words, write conference papers and articles.

This helped me to frame my thoughts and make them explicit and able to discuss. Despite the intrinsic motivation needed to do a PhD, everyone needs these deadlines to book progress. Secondary advantage: a conference in Malaysia, Dubai, Lulea or Dubrovnik is a good start for a holiday!



There is not just one truth. It depends on your perception of how things work in the world. You have to find your own perception on risk and uncertainty – not merely being an objective construct, but strongly prone to subjectivity – to understand how real estate developers manage risk.

Justifiability

Align research paradigm, research perspective (method) and management goal (research question).

There is not just one truth; it depends on your perception of how things work in the world. I had to find my perception on risk and uncertainty – not merely being an objective construct, but strongly prone to subjectivity – to understand how real estate developers managed risk.

Use your ratio, but don't underestimate your intuition.

You always said young people are more willing to take risks, as they don't suffer from the ballast of (bad) experiences, and therefore make better decisions. I think this is only partly true: experiences are a rich source that feeds your intuition and helps you make fast and good decisions, although hard to justify.

Accountability

Taking responsibility as a PhD student, and taking accountability as a promotor during the process of doing a PhD.

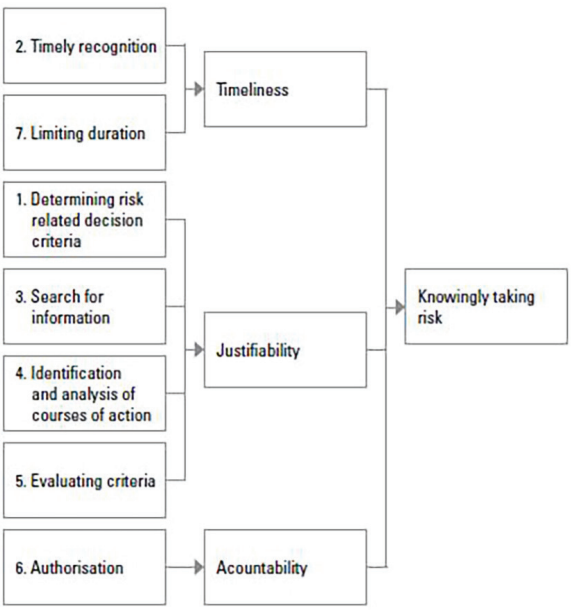
As a PhD student I felt fully responsible for my research and was willing to defend my research, in front of my own colleagues or other scientists from other universities. Still, I am very glad you took accountability at the moment one of our colleagues criticized my work unfairly.

Find a PhD committee that accounts for all different aspects of your research.

In the field of real estate management – an applied science - we make use of other scientific fields, such as general management, organisational decision making, project management and entrepreneurship. To cover all these different areas in my research, we composed a team of supervisors and a PhD committee with experts in different scientific and practical fields. I found it sometimes challenging to cope with all these different opinions, but it was very satisfying to defend my thesis to all of them.

In conclusion: my concept of 'justifiability, accountability and timeliness', seems not only applicable to describe the process of taking risk, but to many more processes in life. In my current position of consultant in the field of real estate and infrastructure, I still use these insights, as well as the experience of becoming a Doctor.

Hans, I'm glad you gave me the opportunity to take the risk of doing a PhD, had confidence in me and pushed me to take a step further, were there at the right, risky moments, and let me free to make my own choices. Thank you and I wish you, and your family, all the best!



Framework of Knowingly Taking Risk

Dr. Ir. Ellen Gehner is a former PhD candidate of Hans de Jonge and a former staff member of the Department of Management in the Built Environment, Faculty of Architecture TU Delft. Currently she is a consultant at AT Osborne.


"How much easier it is to be critical than to be correct." - B. Di
"Idealism is what precedes experien
cynicism is what follows." - D. T. W
"Democracy means no freedom for fascism." - A. van Eijck
"The city, itself, is traditionally a military weapon
and it is a collective shield, a plate armour;
an extension of the castle of our very skins."
INHOUDSOPGAVE NL



Barcelona, the place I visited in the first year of my PhD and became a source of inspiration for what architecture can do to a city.

About value and other things in life

Leentje Volker

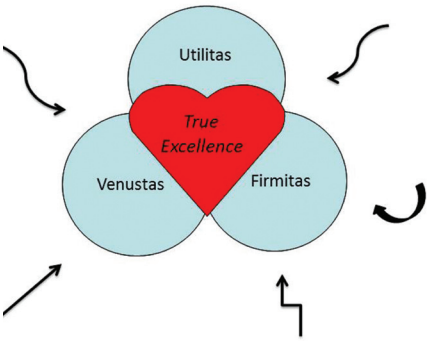
Alles van waarde is weerloos	*Everything of value is defenceless*
er is niet meer bij weinig	*there is no more with little*
noch is er minder	*nor there is less*
nog is onzeker wat er was	*still uncertain what was*
wat wordt wordt willoos	*what is becomes spineless*
eerst als het is is het ernst	*just when it is, it is earnest*
het herinnert zich heilloos	*it recalls unwholesome*
en blijft ijlings	*and remains posthaste*
alles van waarde is weerloos	*everything of value is defenceless*
wordt van aanraakbaarheid rijk	*will be rich by being touchable*
en aan alles gelijk	*and equal to everything*
als het hart van de tijd	*like the heart of the time*
als het hart van de tijd	*like the heart of the time*

Lucebert (Amsterdam, 1924 – Alkmaar, 1994)

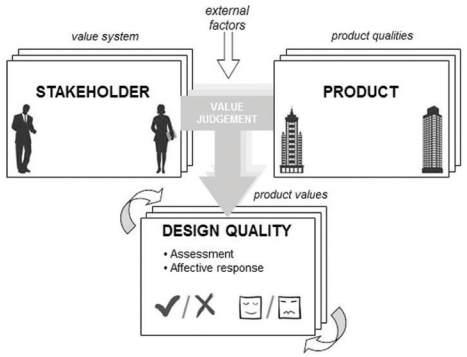


The value of architecture cannot be measured nor predicted, hence one has to trust the professional in creating it, and then experience the quality.

While thinking of my contribution to your Liber Amicorum, I came to think of our endless discussions about the value of architecture, the negative impact of public procurement on the real estate development and your love for Lucebert. 'Alles van waarde is duurzaam' (everything of value is durable) is one of your favourite statements. The value of architecture cannot be measured nor predicted, hence one has to trust the professional in creating it, and then experience the quality. One of your strengths is motivating people. During your career you educated and inspired numerous students and professionals in designing management processes that support the creation and safeguarding of real estate value. This became the foundation of a successful department in the Faculty of Architecture and the Built Environment. In the first year of my PhD project I expressed the ongoing discussion on architectural quality and true excellence by representing the three basis qualities of Vitruvius – Utilitas, Venustas and Formitas – as basic values dominated by a big heart depicting true excellence to be directly felt as love.



True design excellence



Origin of design quality

Over the years, my essential notion of recognizing true excellence and the fact that design quality inhabits both functional assessments and affective responses remained. In my PhD thesis I eventually define design quality as an overall value judgement by an individual stakeholder that is based on the interaction between the person and an (representation of an) object in the built environment. The stakeholder uses his or her value system to perceive the product qualities and make a judgement about the design quality that holds both an assessment of the level of design quality and an affective response.

Another strength of you is to trigger and facilitate interaction: between people, between science and practice, between architecture and management, and between university and business. Your charisma and expertise convinces every manager of the value of creating a real estate strategy. It reassures every mayor of doing the right thing in real estate projects. And it persuades every client of the true value of design, under the conditions of good management of course.

Your heart lies with the end user and the quality of the built environment. And you cannot believe that people would let this beautiful potential ruin by legal requirements. My research dealt with how clients apply the public procurement regulations. The term 'juridicalisation' ('juridificeren') often came up; usually in relation to safeguarding the architecture profession and the quality of governance in the Netherlands. You were always eager to contribute your expertise in finding a solution that both worlds – legal and professional – would benefit from. During my final validation workshop we invited several professionals from your broad network to talk about potential conflicts in architecture selections. It was a very inspiring and unique evening, with people from all blood types arguing about why transparency, objectivity, non-discrimination and equal treatment would intervene with architectural values and management aspects of organising tenders. Intuition, emotion and sensemaking became familiar terms. These terms are prominent in your work too and they have led to wonderful results.

I would like to thank you for being my professor and facilitating me in becoming an independent academic. Saying goodbye after such a great career should be somewhat easier since you can be proud at all your accomplishments. Enjoy these and make new memories together with all your friends and family in this new era of time!

Dr. Ir. Leentje Volker is a former PhD candidate of Hans de Jonge and currently Assistant Professor in Public Commissioning at the Department of Management in the Built Environment, Faculty of Architecture TU Delft.



A young Hans de Jonge giving a presentation for the Minister (Alders) and Secretary of State (Heerma) of the Ministry of VROM when he was part of the top of that ministry.



Hans de Jonge at the conference “Future of the office market”



Great Man Theory

Ruben Vrijhoef

Great leaders are born, not made. This is the basis of the "Great Man Theory ', and suggests that leadership capabilities are innate. According to this theory, you are a born leader or you are not.

The term Great Man originated in the 19th century and was used to ascribe leadership to men with great leadership qualities and corresponding personality characteristics.

The mythology of some of the world's most famous leaders such as Abraham Lincoln, Mahatma Gandhi and Alexander the Great added to the idea that great leaders are actually born and not made.

The historian Thomas Carlyle had a great influence on the Great Man Theory, and stated that "the world history is the biography of great men." According to Carlyle, great leaders were even said to have "divine inspiration and supernatural properties."

Even today, great intrinsic quality and personality are often ascribed to prominent leaders in the position they hold, implying that inherent characteristics they possess describe that they are true leaders. It may be true.

Sociologist Herbert Spencer, however, suggested that great leaders are the products of the society and the moment in time in which they live. He described it as follows: "The creation of a great man depends on a series of complex influences, such as the game in which he finds himself, and the social context in which competition takes place, and this has formed him. So, before a great man can shape his environment, his environment has made him who he is."



Before a great man can shape his environment, his environment has made him who he is.

Many thanks Hans, great man, that I can stand and work in your environment.

Dr. ir. Ruben Vrijhoef is a former PhD candidate of Hans de Jonge, currently assistant professor of Design and Construction Management at TU Delft, and lecturer at Utrecht University of Applied Sciences


ST ANNES
RED SMOOTH
Hanson

Housing



Often photographers were keen to take a picture of me in my OTB working place. Apparently people were surprised by my method of archiving.

Hans de Jonge: new functionalism at the Faculty of Architecture

Hugo Priemus

Real estate and housing

We are in the 1970s. Hans de Jonge finished his study at the Faculty of Architecture and became assistant of professor Sterenberg. Hans was active in the area of externally financed research ('derde geldstroom onderzoek'), in the beginning completely alone. Hans investigated construction costs and already in an early stage he was busy with the complete cycle of programming, designing, construction, finance, operation and maintenance of real estate. At lunch time Hans and I spoke each other often and exchanged experiences.

In 1969 I had started the Research Institute for Housing (RIW), a public-private collaboration between the Faculty of Architecture and the largest Umbrella Organisation of Housing Associations: 'Nationale Woningraad'. RIW was for a large part focussed on externally financed research. Our common orientation on research questions provided by practice, created a strong link between Hans and me. I had to deal mainly with municipalities, housing associations and the Housing Ministry. Hans had fruitful contacts, right from the start, with the Government Buildings Agency ('Rijksgebouwendienst'). Hans had a focus primarily on real estate. My focus was on development and management of housing. As far as I can remember never the idea came up that it could be useful to join forces. With respect for the activities of the other, Hans and I followed our own track.



Photo by Jaap Oldenkamp (2016)

Because the mission of OTB was rather broad I learned a lot in areas outside the realm of housing: real estate, spatial planning, land policy, transport and infrastructure.

BMVB and OTB

In 1985 the OTB research institute on technology and policy started, as a product of interfaculty collaboration: Architecture, Geodesy, Civil Engineering and Philosophy & Social Sciences. The scope of OTB was broad and included the whole

built environment: housing, real estate, construction policy, spatial planning, land policy, environment, infrastructure policy and transport. Hans developed the department of Real Estate and Project Management, covering the complete cycle of construction and operation. There was a fruitful collaboration between housing and real estate via Geert Vijverberg and Dion Kooijman, who acted as real builders of bridges. But again the idea did not come up of a possible merger. Hans preferred the Faculty of Architecture as working environment and I preferred the link between OTB and the Faculty of Architecture as a member of the board of OTB.

MSc Real Estate & Housing

About 1990 the transformation was prepared from the existing engineering studies to the Bachelor-Master system. Since 1972 the Faculty of Architecture had as study directions not only Architecture and Urban Planning, but also Housing. Hans was active in the domain of Architecture, I invested much energy in Housing. Within the domain of Architecture Hans developed a new curriculum on Real Estate and Project Management . Negotiations started to merge Real Estate and Project Management and Housing in a new MSc-track. Hans wanted a MSc Real Estate. I preferred a MSc Housing. Surprisingly the new MSc-education program was named Real Estate & Housing.

In the definition of the RE&H-education design remained the core discipline: architecture was the foundation and that was not my choice. In that time I discontinued step-by-step activities in education at the Faculty of Architecture. As long as possible I continued my role as supervisor of students who were preparing a master thesis on housing and urban renewal. Increasingly I used my energy in developing OTB as an internationally respected research institute. Because the mission of OTB was rather broad I learned a lot in areas outside the realm of housing: real estate, spatial planning, land policy, transport and infrastructure.

Education and research

At the Faculty of Architecture Hans de Jonge was very active in initiating new educational programs. In 2005 he received the prestigious Best Teacher Award ('Leermeesterprijs') in honour of his strategic contributions to education at Delft University of Technology. Interfaculty research of OTB tried to integrate technology, policy, economy and other behavioural sciences. Influenced by the mission of the young Faculty of TPM (Technology, Policy and Management) in OTB the systems approach gained ground. At the Faculty of Architecture the Department of Real Estate & Housing fulfilled a pioneering role in strengthening science and research.

In particular during the office of dean Hans Beunderman, Hans de Jonge played a strategic role at the Faculty of Architecture, in both education and research. In combination with leading the board of Brink Groep Hans also contributed to the policy at university level, for instance as member and chairman of the Council of Professors, who gave advice to the TUD-board on new professorships.

VROM Building Forecasts

The Ministry of Housing, Spatial Planning and the Environment ('Ministry of VROM') organised each year in the period 1996-2003 an event, related to the Forecasts of Building Activities in the next five years. Eight times representatives of the construction industry came together to listen to presentations by Hans Huis in 't Veld (infrastructure), Jim Schuijt (housing) and Hans de Jonge (real estate). I chaired these sessions and contributed with an overarching presentation, linking the sections together. Hans directed the voting procedures in which the audience answered multiple-choice questions. The evaluations after the events were very positive each year, partly thanks to the competent organisation of the conferences by Klaas Taselaar of Rostra. With enthusiasm Hans and I have presented our contributions to these events, but after eight years the series stopped suddenly. As a result of our prominent role in these popular events Hans and I became world famous in the Dutch construction industry.

Managing the University Campus

In 2004 Hans de Jonge and Alexandra den Heijer married. The reader can ask the question why this private event is mentioned in this overview. There is a simple explanation. Alexandra, also working at the Faculty of Architecture, had started the preparation of a PhD-dissertation about university real estate. Hans de Jonge was considered to act as promotor, but rules and mores do not allow an approach where the promotor is the husband of the PhD-student. Alexandra and Hans invited me to act as a promotor, together with Theo van der Voordt (whom I had supervised in preparing his dissertation many years ago) as co-promotor, who was responsible for the daily supervision. This collaboration was very pleasant for all of us. On March 4, 2011 the promotion of Alexandra took place, based on the nice PhD-book 'Managing the University Campus. Information to support real estate decisions'.



Chair Hans de Jonge introduces Hugo Priemus at the conference of the Commissioners Forum ('Opdrachtgeversforum in de bouw'), Leiden, 2011.

Towards retirement

In 2007 I retired, but my official position as a professor (without a salary now) was continued. My working place and secretariat support remained at OTB. So I followed OTB, when that group became an organisational part of the Faculty of Architecture and in 2015 I moved to the building of Architecture: BK City. My chair is still part of the Faculty of TPM, where I am part of the section 'Transport and Logistics' (TLO), headed by Bert van Wee and Caspar Chorus.

Hans wanted OTB to be a part of the Faculty of Architecture. I preferred OTB as part of the Faculty of TPM, because OTB and TPM both originated from the same source: the start of the area of 'Technology & Policy' at Delft University of Technology. The University Board made at the end the choice that Hans preferred, and I lost this game.

Recently Hans and I meet each other less often than in the recent past. That is a pity because the collaboration with Hans, in different constellations, has always pleased me. We followed always our own track, but we share in the same time the same academic and societal values. We always needed not many words to understand each other and there was again and again an effective coordination between us. For the many forms of collaboration and the pleasant collegial relation I am very grateful. I thank Hans for all this.

Prof. dr. ir. Hugo Priemus is prof. em. of Housing at the Faculty of Architecture TU Delft and prof. em. of Spatial Infrastructure at the Faculty of Technology, Policy and Management TU Delft; he has be the dean of both faculties and was the former director of OTB Research Institute TU Delft.


INTOWN

From student to professor of Housing Management

Vincent Gruis

We started at the Delft University of Technology at about the same time. Well, for you it meant starting as an employee, for me as a student. While I entered my study at the Faculty of Architecture in 1990, the establishment of the new graduation track Real Estate & Project Management ('Bouwmanagement & Vastgoedbeheer, BMVB) was in full swing. For you this meant your (re) entrance in Delft as professor of Real Estate Management & Development at a department and graduation track that quickly earned its place in the faculty's educational program and the national research arena. In both aspects you have played a crucial role in the success of BMVB, through which you have by right earned the honorary title of founding father and still have that recognition in its successor, currently called Management in the Built Environment (MBE). I would like to share some of my experiences with you in that role of founding father, and from my role as a student and a colleague professor.

Starting with the establishment of BMVB, I can better talk from a sense of feeling than a straightforward story. From its start, there was a fresh and vibrant atmosphere about the track. It was not only appealing to students who had affinity with the built environment but questioned the focus on design (in a narrow sense of the word), but it also appealed very much to the career perspective I and many of my fellow students had: becoming involved in the built environment in a 'business-like' manner, moving rather fast than slow. Thus, I became part of the early group of students that chose BMVB as a graduation track. This turned out to be a good choice, being part of a track in which teachers and students contributed to that vibrant atmosphere during the course.



As an upcoming professor you look at role models for inspiration. Some of the things I copied from Hans de Jonge is the strong inclination to go to the flip-over during group sessions to help to build consensus and focus.

One of the things I liked most about BMVB was the combination of being at school and being sent out there. For example, in the so-called M1 module ("Investment"), we had to find a location to develop an office building. My friend Juriaan van Meel (who later became one of your PhD students) and I found a strip at The Hague's Malieveld through an interview with a local real estate broker. We proposed to develop a traditional office building here, with twelve floors, a central hallway, and standard rooms on each side. I remember you and Jo Soeter asking us rightfully how on earth we could propose such a dull building at such a good location. But we got the benefit of the doubt for being so brave to propose anything to be built on the Malieveld and got off with a '6' as a grade. Jo Soeter told me later that we wouldn't have gotten away with that now though. I also remember having evening lectures, which did not suit my scheme of work and sports. So I was called to your room ('op het matje') where you asked me why I didn't attend. I explained myself and got the benefit of the doubt again. Later you told me that you mainly wanted to check if I was serious about the study or not. I think it increased my respect for you, because it was a good conversation which showed real interest from the teaching staff in its students and you would not try to force me by formal means, but kept the responsibility where it belonged (in this case, with the student). Finally, I would like to mention the, for me legendary, fieldtrips to Brussels where some of the teachers and the professors joined up with the students as well. Although some students got missing during the evening and part of the morning program the following day (not me, by the way), it is my honest opinion that such two-day field trips contributed to the success of BMVB. Also because you got to know your professors, including you, a bit better again. You and your team set up a very clear structured program for the BMVB track as well, which you always called the 'comb-structure' (see the contribution by Prins and Hobma). In this program, students were continuously alternating between core-BMVB courses (emphasising theory) and combination-courses with other tracks (emphasising exercise). This proved to be a solid structure until the introduction of the BSc-MSc structure made it practically impossible to uphold. This leads me to the second phase of our relationship.

Along with the introduction of the BSc-MSc structure, the discussion came up to merge the graduation tracks and departments of Housing and BMVB. Both tracks emphasised processes, management and governance in the built environment, but focussed on different types of real estate. For me, having combined the graduation track of BMVB with the Housing track (combining tracks was much easier back then, than it is now), this seemed a logical choice. As a recently appointed assistant professor, still finishing his PhD study in the department of Housing, I was asked to become a member of the CURVE ('Curriculum Vernieuwing Bouwkunde' / renewal of the curriculum) group that was responsible for introducing the BSC-MSc structure at our faculty. In those days we also had frequent meetings to help the merging process of the two departments. I must say that I really enjoyed the debates and appreciated your open, positive view on the matter. This made my life easier in helping to implement the merging process within the department of Housing. Since then we had numerous pleasant debates about if Housing is a part of Real Estate Management & Development or not. But I guess it is easy to have pleasant debates between people who share a, as you would say, 'boxes only exist inside your head'-view on the world.



Receiving my doctoral degree certificate in 2001, when Hans acted as opponent and asked if housing associations shouldn't adopt more explicit risk management policies (which in retrospect, of course, they should have).

After the merger, I got to know you more as a chair of the department of Real Estate & Housing. In that role, I am particularly grateful for your support of my application for a professorship. Due to the retirement of André Thomsen and the switch by Hugo Priemus to the Faculty of Technology, Policy and Management, there were vacancies for professorships, of which one really suited my own interests and activities: Housing Management. It really combined the things I worked on since studying BMVB as well as Housing, but I was still somewhat young in my scientific career, and it would be very hard for an assistant professor to be promoted at once to a full professor. Nevertheless, you encouraged me to apply and after I came out as the preferred candidate you supported a 'tenure track' structure which would give me a realistic opportunity to get formally appointed, which happened in 2011. As an upcoming professor you look at role models for inspiration and you definitely were one of them. Some of the things I think I copied from you, in my own way, of course, is the strong inclination to go to the flip-over during group sessions, to draw relationships and help to build consensus and focus. Another thing is to talk to an audience as if it is really interesting what you are talking about. I know I will never be as good in that as you are though :) . A third thing that comes to my mind is that simple logics are often the strongest. I remember for example that you predicted the surplus of prison capacity, due to the ageing of the population. That was way back when I was still working as a student-assistant for BMVB on the Shopping Market Research project in 1995. 20 years later it has become a reality.



Hans and I acting as jury members in the NRP Academy

Nowadays, we share a position in the board of the department and I still enjoy our discussions and your visions. They still inspire me to adapt the long-term view as well: not only focussing on what are apparent problems in society already, but also to focus on the solutions which may not be implemented overnight, but will be even more necessary tomorrow. I think it is indeed, our role as professors, particularly in Delft, to direct our research and education towards those, without losing sight of the reality of today of course.

Hans, it has been great to have you as a teacher, chair, role-model and colleague,

Prof. Dr. Ir. Vincent Gruis is prof. of Housing Management at the Department of Management in the Built Environment, Faculty of Architecture TU Delft.



The Vogelplas, at the edge of Zoetermeer and Benthuizen. I have lived at both sides of this beautiful small lake. A nice peace of nature in a crowded Randstad.

Hans de Jonge as primus inter pares in the real estate world

Peter Boelhouwer

My first encounter with Hans de Jonge dates from the time I was working as a young researcher at OTB Research Institute for the Built Environment. To be more precise; that was in October 1987. A very interesting and dynamic period in which passion but also conflicts and different views were not uncommon. The first few years I was completely submerged in contract research and administrative troubles and discussions were still quite far away. Hans was at that time a member of the managerial board of OTB, on behalf of the Faculty of Architecture and the Built Environment, together with the representatives of two other faculties of TUD. After a couple of years when Johan Conijn was appointed as a co-director of OTB, I became more involved in the management of the institute, when I was appointed as the coordinator of the Housing market research section. I can remember the time when I actively participated in the OTB management as a fairly turbulent time in which various committees discussed the future of OTB on a regular basis: outside the TUD, within the TU Delft as an independent administrative unit, or as part of one of the constituent faculties. The Executive Board of TUD was not clear for a long time about how a quite deviating unit as OTB should be positioned in the university. At that time Hans always stressed the interest of OTB research for the TUD, as a board member of OTB and despite or maybe because of his links with the



The way real estate knowledge is integrated into a design environment within the Faculty of Architecture and the Built Environment is fairly unique in the world and of great importance to the faculty and TU Delft.

Department of Real Estate and Housing of the Faculty of Architecture and the Built Environment. He supported our strategic approach to respond to societal questions and challenges in a scientific way. Cumbersome administrative or sometimes personal issues that occurred were managed by Hans convincingly and with great authority and in many cases brought to a good end. In such crisis situations Hans is in my eyes someone who commands respect and follows a clear direction.

Later, in 2003, when I took over the chair of Housing from Hugo Priemus for two days per week, I got the opportunity to get to know Hans much better as the chair of Real Estate and Housing. What particularly impressed me was that Hans was able to combine a busy and important job as the CEO of the Brink Group with his responsibility of being the chair and leader of the department of Real Estate and Housing. Especially the time management which is essential for this combination of features, calls for deep respect.

The way real estate knowledge is integrated into a design environment within the Faculty of Architecture and the Built Environment is fairly unique in the world and of great importance to the faculty and TU Delft. Hans could always articulate this unique position and also convince the outside world of the benefits of this special construction. Despite the importance of these more managerial aspects, the creation of the Department of Real Estate and Housing and the way real estate research was boosted, was I my opinion the most important contribution that Hans has made over the past three decades.

Besides the substantive academic contribution, I very much liked the enthusiastic and convincing way in which Hans managed to communicate. According to my experience, the social impact of research depends heavily on the way the communication is organized. I saw Hans many times performing as an enthusiast and persuasive speaker on conferences, and as both a charming and very effective and efficient chairman of national and international real estate-related events. In such settings it was always enjoyable as Delft professors to pull together and to around together in an area where mainly economically oriented speakers were active. From the Delft perspective, we could then devote specific attention to the user of the property and the social relevance and impact, which in purely economically oriented studies sometimes is absent.

During the illness of Wytze Patijn, I had the privilege to act one year as the acting dean of the faculty of Architecture and the Built Environment. In this period I was involved in (the end of) the commissioning of the new building of the faculty at the Julianalaan. This unprecedented rapid operation was strongly supported by the efforts and expertise of the Department of Real Estate and Housing. A better case study could not be found, in the immediate vicinity! A number of employees, including Hans of course, helped to ensure that the faculty is accommodated now in an inspiring environment that is admired by many visitors. It was really a great pleasure for me that I could participate in the process to apply for a royal honor for Hans and that the ceremony took place during my term. In my opinion a very correct decision of His Majesty!

Although Hans now has reached the age of retirement, I'm sure the rest of the world will still be influenced by the ideas and work of Hans. An excellent time has come to denote property development and to initiate activities outside the hustle and bustle of everyday life in a contemplative way. I'm really looking forward to this new era.

Prof. Dr. Peter Boelhouwer is professor of Housing Systems. He was the scientific director or the OTB Research Institute for Housing, Urban and Mobility Studies of the Delft University of Technology from 2003-2013 and he is now the chair of the department of OTB Research for the Built Environment of the Faculty of Architecture TU Delft. He was the acting dean of this faculty from Autumn 2008 till Summer 2009.





View on Toronto

I am living in Toronto now most of the time. I am fascinated by the fact that people living in such different circumstances (the Canadian and Dutch circumstances) are facing the same problems in the field of sustainable building and planning. And it also fascinates me how easy it is to get inspired by exchanging experiences. It broadens your view, immensely. That's why I started paralle52.org and why I moved here for a while. But I love it to stay working in the Netherlands.

The art of igniting the medial prefrontal cortex

Anke van Hal

If people ask me what I do for a living, I always tell them that I work as a sustainable building professor at two universities. At the TUDelft, I am focussed on the improvement of existing dwellings and neighborhoods and at Nyenrode on the business case for sustainability. I always add the remark that I try, as good as possible, to combine both perspectives. This means in practice that I am focussed on the business case for the transformation of existing houses and neighborhoods in which a strive for sustainability and overall quality are combined. That is a mouthful.

However, what I don't say but what is even closer to the truth is that I am full time engaged with taking care of and merging the interests of people. In the world of sustainability, a focus on the interest of people is not unusual. A strive for sustainability is per definition combined with a focus on the needs of people. Think of the early definition of sustainable development of the EU-Brundtland Commission: "A sustainable development is a development which meets the needs of current generations without compromising the ability of future generations to meet their own needs."



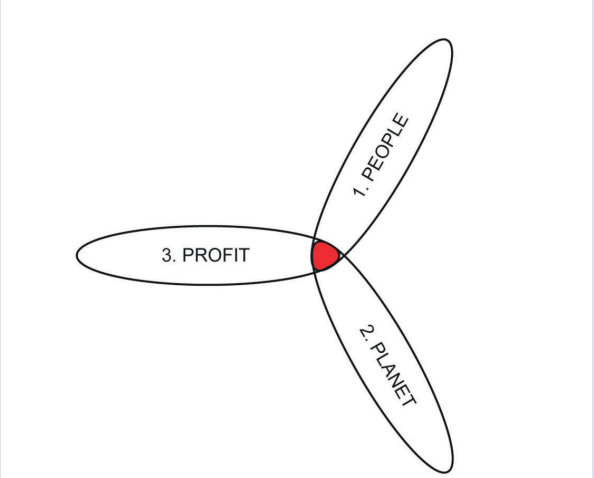
It would be great if designers can transform sustainable measures in a way that ignites lobs of the brain in a scan because that means that people really want them.

I always liked this definition as a starting point. Overall it doesn't go far enough. This because most people do not experience that sustainability meet their needs. They know it does, of course, and they know that it also benefits their children and grandchildren, but this is rational. They don't experience it by heart. And that's why it is so important to transform sustainable measures, products, and services to something that people really want. To make it something that creates greed. That for me is the challenge of the business case for sustainability.

It is possible nowadays to put people with their head in a scan and to examine what it is that makes them enthusiastic. Like the Danish science journalist Lone Frank wrote in her book Mindfield (How Brain Science is Changing our World): "Every time someone saw a product they genuinely found to be attractive, the blood flowed to a small are at the front of the cerebral cortex. The medial prefrontal cortex lit up on the photo like a flame'.

It would be great if designers can transform sustainable measures in a way that ignites lobs of the brain in a scan because that means that people really want them. This increases the probability that these measures not only become sustainable in the Brundtland definition but in the original meaning of the word too; It will make them durable.

I realize that by writing this conviction in but a few words, this can sound very idealistic and vague. However, together with and inspired by many colleagues and other people I transformed this basic idea into a hands-on perspective and a very practical strategy (see the framed text). And since I did that, I constantly look at the world through the glasses of that perspective. And everywhere, not only in the built environment or the building industry, I see signs that strengthen my belief that the achievement of sustainable ideals can not be separated from the art of igniting the medial prefrontal cortex. Looking back, I have to conclude that I, long before I started working on the Delft and Nyenrode Universities, already was searching for the combination of sustainability and greed, or better, the illumination of that lob of the brain.



The Merger of Interests Perspective

The Merger of Interests Perspective is based on the mission to improve the quality of living of people (both here and now, and there and later) within the context of the built environment.

Some basic starting points form the vision related to that mission. Namely:

- The quality of the built environment can be improved using a 'toolbox' which contains mainly sustainability measures. That's because sustainability initiatives can offer quality in more areas than simply in terms of sustainability.
- Such sustainable initiatives can quickly become communal property when sustainable initiatives promote both interests and engender positive emotional feelings (in other words, they light up the medial prefrontal cortex).

So professionals need to seek for what people desire, what they really want, and what makes them happy. This focusing on the 'non-sustainable qualities of sustainability initiatives' leads to healthy business opportunities. Opportunities arise when parties succeed in developing a sustainable innovation which meets the interests of the parties involved.

Within the context of the Merger of Interests Perspective, a definition is used which does justice to the aspiration of making something from sustainability innovations that people really want.

Sustainability is about promoting the interests of the people here and now, in a way which takes into account the interests of the people there and later.

For those who are working from the Merger of Interests Perspective, cooperation is extremely important because innovations have more chance of success if the scope is broadened in terms of time, place, profession, and financial flows. Cooperation with other parties than is usual enhances the chance that there is a diversion from the usual track and that there is a broader view of the sustainability statement in the built environment. Cooperation leads more readily to an integral quality of sustainability measures, where the need for quality must be met on multiple fronts, and this leads to innovations.

So there are five actions of crucial importance in the development of innovations from the Merger of Interests Perspective: broadening the scope, identifying interests, cooperating, creating a win-win situation and creating business opportunities.

The Merger of Interests Strategy

The Merger of Interests Strategy enhances the chance of sustainable innovations with an integral quality (in other words, with more qualities than simply sustainability ones). It consists of three steps with a fixed sequence.

Step 1: Drawing up an inventory of the interests of people here and now (including all those involved in a project, thus including the offering parties).

Step 2: Defining measures which promote these interests, in such a way that it also meets the interests of people there and later (The 'toolbox' thus consists purely of sustainable measures.)

Step 3: Seeking (innovative) funding models which make an investment in such measures possible.

If you simply regard the word Profit from the well-known triptych of Elkington (People, Planet, Profit) as considering the financial aspects, this triptych becomes an effective memory aid for this strategy. Consider first the interests of the people involved, then attempt to promote those interests in a way which is also good for the planet (the environment, the people of the generations following us), and only then consider the costs. So the familiarity of his triptych can be used as a memory aid for the sequence of steps within the Merger of Interests Strategy: 1. People, 2. Planet and 3. Profit.

The following logic lies at the heart of this sequence: if you offer people something which meets their needs (helps to resolve their problems or helps to embody their ideals), an inner wish is created to have access to it (the medial prefrontal cortex lights up). Preparedness to be creative in seeking innovative funding models then also increases.

By way of illustration: many students, despite their limited financial resources, have the newest and most expensive computers and phones. Because they really want to have them, they ensure in all sorts of ways that they can gain access to them. They save, do extra work or find another solution. The Merger of Interests strategy capitalizes partly on this dynamic: wanting to fulfill a need or desire, whereby that longing becomes a driving force in realizing a solution. This mechanism is not only applicable to consumers. Other stakeholders are also driven by the fulfillment of desires. By working in accordance with the passion of all the parties involved, more chance is created of sustainability, innovation and collaboration in building

All in all, it sounds as though these three steps are probably obvious. But in practice, the available budget is generally the starting point in the selection of sustainability measures, rather than wanting to meet the needs of the parties to the fullest. Sustainability objectives then quickly disappear. When things are done by the Merger of Interests strategy, the chance of this happening is reduced, because there is a striving towards a win-win situation.

This summary is based on 'The Merger of Interest 2.0, the Story Behind a perspective shift' by Anke van Hal, published at Nyenrode Business Universiteit, 2014

I started my study of Architecture in Delft in 1983 because I was intrigued by the impact of the built environment on the emotions of people. During my high school period, my parents built a house in a neighborhood under construction. And during that whole building process, I saw a meadow with cows transforming into a neighborhood. Into a place where people feel at home and where they feel safe. In fact, the meadow for cows changed in the most important place on earth for many people, and I was fascinated.

I stayed fascinated during my whole study and in 1989, I graduated on the design of a tool for designers that helped them combining their strive for beauty and spatial quality with a strive for energy efficiency and living comfort. The tool was called HyperCoEn, because it was made with the Apple program HyperCard and focused on Comfort and Energy efficiency. Years later, I started working for my Ph.D., again on the Faculty of Architecture in Delft, and I studied the diffusion of environmentally friendly measures in housing. I expected my research to become focussed on the technical quality of these measures, but eventually all kind of 'soft' factors seemed to be much more important. I concluded, amongst others things, that the environmentally friendly measures should have much more quality than environmental quality alone. Also, communication about experiences with those measures seemed to be a great influence. So, in the end, the whole research was all about people and what fascinates them and how you can touch them emotionally.

However, as well during my study as during my PhD time, I felt a bit lonely at the faculty with my personal fascination with people and their feelings. I got the impression during my study, and now I know I overlooked several people (sorry!), that the attention for the impact of the built environment on the feeling of people was extremely limited in our faculty. I never saw architectural photos with people on it and there were no lectures in which the impact on people was mentioned. I was so disappointed that I decided to change studies but at that time, I met the future professor Kees Duijvestein. He introduced me to the world of sustainable building (or ecological design it was called at that time). Again not with a focus on people. However, this topic was all about creating a better world, and that illuminated my medial prefrontal cortex. So I stayed at the Faculty.

Also during my P.D-study, I got the feeling that the faculty and I did not connect as much as I wanted. My topic drifted from that of others. And at that time, you can't imagine it now, doing a PhD-research was supposed to be a second choice. Only people who couldn't design did such a thing and many felt sorry for me. Or so it has been said to me at that time by some colleagues.

With this history in mind, I was appointed in 2008 as professor of Sustainable Housing Transformation at the Faculty of Architecture, at the Department of Real Estate and Housing. At that time, I was totally fascinated by the challenge to transform existing dwellings and neighborhoods in attractive and sustainable places for the people living there, and I was longing to 'infect' students with that fascination. However, my history has made me suspicious. The fact that a student during one of my first lectures reacted with the words "Fuck the residents, they obstruct the freedom of design!", did not help to reduce my suspiciousness at all. I totally expected that my focus on the interests of people would not connect to the work of others at the faculty. And how do prejudices work? They reinforce themselves because you only see the things that you expect to see. I totally neglected, I realize now, signals of the opposite. Nowadays, I am a strong advocate of the integration of knowledge of the human sciences in the education of designers and other building specialists. Especially when they have to focus on existing dwelling and neighborhoods. After all, people are living there already and as a result, existing neighborhoods are extremely emotionally charged. The way I handled my prejudices can be seen as a clear example of what is taught in studies of human behavior, like the overconfidence bias and the representativeness bias.

So I stayed suspicious and kept feeling lonely a bit, during my first months as a professor at the Faculty of Architecture. The situation changed, however. With thanks to Hans de Jonge, because the change in my way of thinking about the overall opinion on the faculty emerged during a lecture of him. He gave this lecture for bachelor students.

I was supposed to give a lecture for these students too and wanted to match my story with the ones of the teachers who gave lectures before it was my turn (in this case both 'Hanses').

I knew Hans de Jonge quite well already. I had known him before I started working at the Delft University and he was also my personal contact during the job application period I went through before starting at the Delft University. However, for me, he was also almost the personification of the Dutch building society, as well in practice as in sciences, so till that time, I never considered the possibility that I would find an ally in him regarding my thoughts and convictions.

Till the moment of that lecture.

I knew that Hans is a great teacher. I understood that once the students selected him as the best teacher of the whole university! And I wanted to become a great teacher too. Also, because I wanted to attract students to a topic (existing dwelling and neighborhoods) that does not interest them that much. So, learning to teach was also a reason that I wanted to attend his lecture.

And it was indeed extremely inspiring. I found his way of acting, his fluency and persuasiveness, impressive. However, that was something I expected. But I also became overwhelmed by the content of his lecture. It seemed to me that he, in totally different words, of course, talked about the ideas behind 'my' Merger of Interests Perspective. Something I hadn't expected at all. He told the students about the impact of building activities on all parties involved, also emotionally. And it became clear to me that acting in a sustainable way was the most logical thing to do for him. It was, overall, a feast of recognition. I remember expressing my surprise to him. Something that on his turn, surprised him. For him, it was obvious that our visions connected and overlapped.

This experience really was a turning point for me. My suspiciousness reduced considerably, and I started looking at other colleagues of the Faculty of Architecture with totally different eyes. I started to share with many of them my thoughts and convictions and tried to figure out what their personal fascination was. And more than often I discovered that, for many of them, sustainability and the interest of people were very important. Often, however, from a totally different point of view than mine which I found very fascinating.

I am a professor at this Faculty for more than eight years already. And during these eight years, thanks to many supportive colleagues, many of my dreams for this faculty came true. While writing this contribution, I asked myself if this would have been different if I hadn't attended the lecture of Hans at that time. I don't know of course. But what I do know is that he, in several ways, has been of great influence on the course of my Delft adventure.

And what I know too; he is a great igniter of flames in the medial prefrontal cortex of students and professionals, like me.



Blended learning
Teachning from my Toronto living room during the blended course 'Energy Friendly Renovation Processes'.

Prof. Dr. Ir. Anke van Hal is prof. of Sustainable Housing Transformations at the Department of Management in the Built Environment, Faculty of Architecture TU Delft, and prof. of Sustainable Building and Development at the Center for Sustainability at the Nyenrode Business University



Favourite spot: Park Welgelegen at Utrecht. An experimental housing concept for the elderly, which Caspar designed 25 year ago (at architects firm Op ten Noort Blijdenstein at Utrecht)

Customized industrialisation in the residential sector

Caspar van den Thillart

In the late nineties, I contacted Hans de Jonge to do a PhD on the subject of customised industrialisation in the residential sector. Why did I came up with this subject?

In view with the overall declining growth in many sectors of industry, mass customisation (MC) techniques and processes would appear to offer a solution to the dilemmas of saturated markets. This should also be the case for the rather traditional and fragmented building industry. The Dutch housing sector scored at that time - compared to other countries - well on industrialised building but poorly on customer-friendliness.

It was my intention to not only study appropriate MC techniques for the building sector as such, but also to explore and bring forward innovative techniques, market approaches and concepts, a kind of marriage between art and science, one might say. After all the building sector has a pragmatic nature and benefits more from visualised examples than reading voluminous reports.

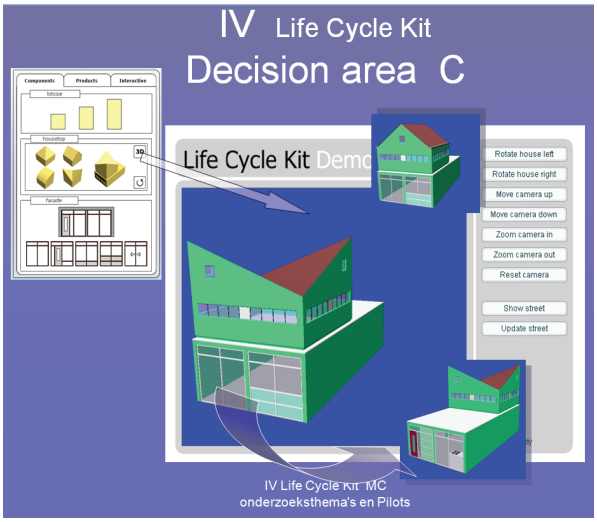
To understand my PhD intentions, I have to explain some features of my career. I am not a regular PhD student of Hans' unit. For twenty years I practised as a project architect for several big architectural firms in the Netherlands, mainly in the residential sector. Besides architectural work, my interests were also in the field of research in the building industry, which after all is still a very traditional and fragmented sector. In the nineties I decided to have a career switch and started to work for the Dutch government in the sector of building quality and standardisation. Here I became the head of the Dutch delegation for construction products in the EU, involved in performance based market harmonisation .



A generic separation and flexible connection of building systems and components stimulates substitution, enables expansion of the market and offers free choices for the customer.

Due to my experience for years in both architecture, building technology and standardisation on the European level, I rather preferred a holistic approach for my research. This attitude aroused discussions with my promotors. They emphasized scientific rigour and focus on a restricted subject. On the contrary, I was apt to bring forward and research all necessary subjects to come to appropriate MC solutions to help the fragmented building industry forward. Hans was always surprised about my quick deliveries of studies and reports and joked sometimes that I was able to write quicker than he possibly could read. Eventually, I completed my doctoral thesis on MC in 2002 including MC models. Hans considered the subject of MC so important that an English condensation of my thesis was prepared and edited in 2004 by SUN.

My PhD research may be considered as a continuation of the tradition of the Dutch open building philosophy, i.e. separating the different parts of a building into different decision levels, ranging from urban planning to infill. The underlying idea is that these different decision levels have different life cycles. But more important for industrialisation is that a generic separation and flexible connection of building systems and components stimulates substitution and enables expansion of the market. At the same time this substitution, made possible by flexible product automation (FPA), opens many free options for the customer. This way of satisfying individual customers wishes, while still remaining profitable is known as MC.



The key question of my PhD research was whether MC is to be achieved by purely open or closed building systems (like catalogue types, Japanese housing factories).

In my dissertation I worked out a performance based MC model (virtual Kits) based on open cooperation of different suppliers, creating a maximum of customers options, using FPA and information technology (IT).

Nowadays IT (open BIM systems) proves to be the linking pin for smooth cooperation of the different building parties. Various concepts of personal housing are on the market, but the performance based benchmarking of these concepts based on competitive cooperation of businesses, as intended in my PH.D research still needs improvement. A further development of FPA (robots, 3 D printing), less nostalgia and bureaucratic urban planning, will in my opinion create eventually a better turn-over for industry and last but not least a higher and cost effective MC performance for customers.

My PhD on mass customisation in the building sector has yielded many contacts in the building industry for me. I would like to thank Hans and all my promotors for their guidance and comments during my PhD study.

Dr. Ir. Caspar van den Thillart is a former PhD candidate of Hans de Jonge. He is currently retired but still busy in the field of market harmonisation (CE marking) and mass customization.



In 2011, a Symposium of customized industrialisation was held at the former Ministry of VROM on the occasion of my retirement. Hans acted as chairman at this event.

The ‘Hans at a glance’ section has been composed by Theo van der Voordt, who joined Hans de Jonge on his journey for quite a long time.

Hans at a glance

The many functions of Hans de Jonge



Hans de Jonge (4 February 1951) knew already at the age of 15 years that he wanted to become an architect. Although he had many other interests as well – including theology and anthropology – he went to Delft when he was 17 years young. He liked studying architecture very much but he wanted to connect design much more strongly to technology and science. For this reason he attended extra courses in exact sciences and visited other universities in London, Berlin and Paris, including the Operations Research Institute Land Use and Built Form Studies at the University of Cambridge in the UK (1972). He also studied cultural anthropology for two years at the Leiden University, to get a better understanding of peoples' needs and behaviour, cultural influences, and the impact of the economic context. Apparently people oriented design and management was key from the start on. His graduation project integrated design and research, which was not very common at that time. He graduated as an architect at the Faculty of Architecture of the Delft University of Technology in 1978. Due to his interest in management he also followed the Senior Management Program of VNO/Baak and finished this program in 1988.

Quite soon after coming to Delft Hans started to combine his studies with work in practice at architectural firms to know more about design thinking, design processes and how to manage design and construction processes. By shifting back and forth from study to practice he became more familiar with systems analysis and design methodologies. In Stuttgart he worked for the University Planning Office of TU Stuttgart on the design of new laboratory buildings; at the same time he frequently visited the Institut für Leichte Flächentragwerke (Institute for Light Weight Structures) where Frei Otto worked on the design of the roof for the Olympic Stadium of Munich (Olympic Games of 1972).

After his graduation Hans was asked by the Dutch Governmental Architectural Supervisor Tjeerd Dijkstra to come to the TU Delft and to start a research team. But Hans preferred first to travel along the globe for one year. Since his return he had various jobs and conducted many additional activities. It is difficult to be complete, but this is what we found.

Jobs of Hans de Jonge

1991-2016: Chair in real estate management and development at the Faculty of Architecture of the Delft University of Technology.
During his professorship Hans de Jonge was strongly involved in numerous new initiatives and many different activities, usually for many years.

- Founder and chair (till 2007) of the department and graduation track Bouwmanagement & Vastgoedbeheer (BMVB) (Real Estate & Project Management), after a merger with Housing renamed as Real Estate & Housing (RE&H) and currently named Management in the Built Environment (MBE);
- Member of the management team of the Faculty of Architecture;
- Initiator and chair of the board of the Center for People & Buildings (with cofounders ABN AMRO and the Governmental Building Agency, later joined by the Tax Authorities;
- Initiator and member of the management team of the Center for Process Innovation in Building & Construction (CPI), with TNO and market parties;
- Board member of the SKG Knowledge centre Stichting Kennis Gebiedsontwikkeling (Urban Area Development)
- Cofounder and board member of the MCD Master City Developer, a 2-year part-time postdoc MSc program for area developers in an uran context (with the Erasmus University Rotterdam and the development department of the municipality of Rotterdam);
- Chair of the Board of Professors;
- Board member of the Building Law Institute (Instituut voor Bouwrecht)
- Board member of the Research Institute OTB
- Chair of the Science Commity of the Faculty of Architecture (VCW: 'Vaste Wetenschapscommissie').
- Chair of the selection committee of Antoni van Leeuwenhoek professors.

1997- now: CEO at Brink Groep bv, Leidschendam
Final responsibility for the company. Portfolios strategy and finance. Consultant in many complex projects regarding area development, public and corporate real estate, inter alia:

- Accommodation Strategy of the Province of Utrecht (policy advisor of the Provincial Executive); analysis of alternative options; acquisition of Fortis Building;
- Science Port Holland (policy advisor of the Mayors of Rotterdam and Delft and the chair of the Executive Board of the Delft University of Technology); joint development of an area of about 200 hectares in the South Wing of the Randstad (the /urban agglomeration of Western Holland);
- Consultant of private parties in Grondbank Meerstad (Groningen), working on research into land policy;
- Consultant of the mayor of Maastricht about land transactions;
- Accommodation Strategy of the Admiraal de Ruyter hospital in Vlissingen;
- Innovations in construction projects at Schiphol Airport;
- Campus strategy of Chemelot DSM Geleen;
- Accommodation Strategy of Philips Nederland (corporate real estate and area development of High Tech Campus);
- Consultant of the board of Woningbedrijf Rotterdam (a municipal housing association) with regard to inner city development;
- Consultant of the Mayor and Aldermen of Maastricht: council office in connection to the area development of Markt Maas;
- Urban re-development of shopping area Centrum Utrecht (Hoog Catharijne);
- Townhall Beverwijk, re-development of train station area;

- Member of the Quality team Spoorzone Tilburg: consultant of the Mayor and Aldermen;
- Chair of the selection team of Urban Area Development Vught;
- Member of the inter-departmental policy consultations regarding Governmental Real Estate;
- Consultant/member of 'Opdrachtgeversforum' (a collaboration of large public and semi-public commissioners in the building industry, real estate and area development);
- Member of the Quality Board Rotterdam Real Estate, Municipality of Rotterdam.

1995-1997: CEO of Starke Diekstra Holding NV, Nieuwegein.
Responsible for commercial and technical policy, management consultancy, facility management and product development.

1994-1995: Research director at the Governmental Building Agency, the Hague.
Responsible for R&D regarding a real estate portfolio of 4,000 buildings / 6,000.000 m2 gross floor space.

1993-1994: Director of Accommodation Policy, Governmental Building Agency, the Hague.
Responsible for the foundation of a new Accommodation Policy directorate and defining the Accommodation Policy of the national government.

1992-1993: Director of Consultancy and Research, Governmental Building Agency, the Hague
Responsible for cost and quality policy and research.

1987-1992: Board member of the Directorate Consultancy and Research, Governmental Building Agency, the Hague
Responsible for research programs and implementation tools

1986-1987: Head of the Department of Costs - Directorate Consultancy and research, Governmental Building Agency, the Hague
Responsible for standardisation, finance and monitoring of costs and quality of governmental real estate

1983-1986: Teamleader contract-research team costs and quality TU Delft Buildings
Development of new methods and tools to steer on and monitoring of costs and quality of designing complex buildings.

1980-1983: Kraaijvanger Architecten Rotterdam
Project manager, consulting, programs of requirements, leader of projects.

1979-1980: Traveling along the globe

1974-1979: Kraaijvanger Architecten Rotterdam
Design of commercial and industry buildings, consultancy, real estate research

Additional activities

Whereas two part-time jobs (in total 1,2 f.t.e.) – one in academia, one in practice - need more time and energy than many people could stick out, during his working life Hans conducted many additional activities as well.

Teaching

- Lecturer at the School for Public Services, The Hague (NSOB-NICIS Master of Strategic Urban Studies)
- Lecturer at the University of Amsterdam, ASRE Master of Real Estate
- Lecturer at the University of Antwerp, UAMS Master of Real Estate
- Lecturer at the University of Tilburg, TIAS School for Business and Society, Master of Real Estate
- Lecturer at the TSM Business School for the postgraduate course "Project Management in the Construction Industry" (Delft University of Technology & Twente University)
- Lecturer at the Foundation for Investment and Property Expertise (SBV), University of Amsterdam, postgraduate course Master of Real Estate
- Lecturer at NOVAM
- Visiting Professor at the Center for Real Estate, MIT Massachussets
- Visiting Professor at Harvard University, Cambridge, USA, Graduate School of Design.

Memberships and consultancy

- Chairman of the Board of the Research Institute for Policy and Technology (OTB), Delft University of Technology
- Board member of the Karauli Foundation
- Board member of the NRP Foundation (National renovation Platform)
- Board member of Innovations in Building
- Team member of the Building Industry Action Agenda
- Chair of the Action Program "Vacant offices"
- Board member of the Advisory Board of TNO DuCHA (research and development of health care facilities)
- Member of the Advisory Board ARTD
- Board member of the Rotterdam Central District Association
- Board member of the Institute for Constructional Research
- Member of the Program Council of the Foundation for Construction Research (SBR), Rotterdam
- Board member of the Faculty of Management Expertise Foundation, Eindhoven University of Technology
- Faculty member of the Supervisory Board Workplace Forum, London
- Advisor to the Management Board of the Leiden University
- Chairman of the Housing Steering Committee, Delft University of Technology
- Consultancy/research for the Municipality of Alphen aan den Rijn
- Consultant of KuiperCompagnons BV

Editorships

- Member of the Editorial Board of the professional journal "Vastgoed" (Real Estate)
- Member of the Editorial Board of Building Business
- Member of the Editorial Board of the Dutch Facility Management Handbook (Arko)
- Member of the Editorial Board of the Dutch professional journal Real Estate Magazine



Bibliography
Publications of Prof. Hans de Jonge

2016

Alghamdi, N., Den Heijer, A.C., & De Jonge, H. (in press) Assessment tools' indicators for sustainability in universities: An analytical overview. International Journal of Sustainability in Higher Education, 18(1).

2015

Arkesteijn, M.H., Valks, B, Binnekamp, R, Barendse, P & De Jonge, H (2015) Designing a preference-based accommodation strategy: A pilot study at Delft University of Technology. Journal of Corporate Real Estate 17(2), 98-121.

De Jonge, H. (2015) City Making in the 21the Century. The City as Master Developer. Urban Design Journal, 135, UDG, London.

Remøy, H.T. & De Jonge, H (2015) Good Buildings drive out bad buildings? Defining the dogs and the stars. In: K.Y. Arslanli (Ed.), Book of Abstracts: 22nd Annual European Real Estate Society Conference ERES 2015, Istanbul: Urban and Environmental Planning and Research Center, ITU pp. 3.

Remøy, H.T., de Jong, P., Heurkens, E.W.T.M., Koppels, P.W., Arkesteijn, M.H. & De Jonge, H (2015) Proceedings of the 11th Annual ERES Education Seminar. Delft, The Netherlands, November 27-28, 2015.

2014

Dalderup, R., Arkesteijn, M.H., Heijnders, L.G.C. & De Jonge, H (2014) Beating the crunch: How corporate real estate management responded to the credit crunch. In: I. Anghel, S.C. Curea & M.D. Oancea-Negescu (Eds.), Proceedings of the 21st Annual Conference European Real Estate Society. pp. 1-18.

Den Heijer, A.C., De Vries, J.C. & De Jonge, H. (2014) Developing knowledge cities. In J. Wang & X. Li (Eds.), The selections of urban planning international II. Beijing, China: China Architecture & Building Press, 154-183.

Valks, B, Arkesteijn, M.H., Binnekamp, R, Barendse, P & De Jonge, H. (2014) Preference-based accommodation strategy: a pilot study in scheduling and planning at the Delft University of Technology. In I. Anghel, S.C. Curea & M.D. Oancea-Negescu (Eds.), Proceedings of the 21st Annual Conference European Real Estate Society. pp. 1-16.

Verhoeff, T, Arkesteijn, M.H., Binnekamp, R & De Jonge, H. (2014) Optimising juridical financial flexibility of corporate real estate. In I. Anghel, S.C. Curea & M.D. Oancera-Negescu (Eds.), Proceedings of the 21st Annual Conference European Real Estate Society, pp. 1-19.

2013

De Jonge, H, Remoy, H.T., Van der Voordt, D.J.M., Zijlstra, H., Borst, S., Rieuwerts, S. & Koppels, P.W. (2013) Leegstandsmanagement van publiek vastgoed: Pilotstudie - werkdocument (Beknopte samenvatting, conclusies en aanbevelingen). Delft: Faculteit Bouwkunde TU Delft, Afdeling Real Estate and Housing.

2012

De Jonge, H. (2012). The entrepreneurial city. Archis (English Edition), 34(4), 115-117.

De Jonge, H. (2012). Akkoord over sloop lege kantoren. De Volkskrant, 06-28-2012, pp. 3.

De Jonge, H. and Arkesteijn, M.H. (editors) (2012), Ownership real estate Government funded musea – Lessons for a possible ownership transfer. Delft: Faculteit Bouwkunde TU Delft. In commission for the Ministeries of Education, Culture & Science and Finance and the GBA (In Dutch).

Den Heijer, A.C. , De Vries, J.C. & De Jonge, H. (2012) Developing knowledge cities. In M.S. van Geenhuizen, P. Nijkamp & A. Mickiewicz (Eds.), Creative knowledge cities myths, visions and realities. New horizons in regional science series, 104-131. Cheltenham / Northampton: Edward Elgar.

Den Heijer, A.C. & De Jonge, H. (2012) Adding value – linking decisions and performance. In P.A. Jensen, T. van der Voordt & C. Coenen (Eds.), The Added Value of Facilities Management: Concepts, Findings and Perspectives, 181-198. Lyngby: Technical University of Denmark.

2011

De Jonge, H., Chen, Y & Daamen, T.A. (2011) Training city developers, the Dutch way of education. Urban Planning International (Guoji Chengshi Guihua), 26(3), 60-65.

Den Heijer, A.C., De Vries, J.C. & De Jonge, H. (2011) Developing knowledge cities: Aligning urban, corporate and university strategies. Urban Planning International (Guoji Chengshi Guihua), 26(3), 50-59.

Franzen, A.J., Hobma, F.A.M., De Jonge, H. & Wigmans, G (2011) Preface. In A. Franzen, F. Hobma, H. de Jonge & G. Wigmans (Eds.), Management of urban development processes in the Netherlands Governance, design, feasibility, 9-15. Amsterdam: Techne Press.

Franzen, A.J., Hobma, F.A.M, De Jonge, H. & Wigmans, G. (Eds.) (2011). Management of urban development processes in the Netherlands: Governance, design, feasibility. Amsterdam: Techne Press.

Peek, G.J., Bertolini, L & De Jonge, H. (2011) Gaining insight in the development potential of station areas: a decade of node-place modelling in The Netherlands. Urban Planning International (Guoji Chengshi Guihua), 63-71.

2010

De Jonge, H. (2010). Mengen. Architectuur Lokaal, 76, 57-57.

De Jonge, H., Arkesteijn, M.H., Den Heijer, A.C., Vande Putte, H.M.J, Zandbelt, D.D. & de Hoog, C.M. (2010). TU Delft campusvisie 2030. Delft: TU Delft.

Koppels, P.W., Remoy, H.T. & De Jonge, H. (2010) Know what you're looking for: a theoretical framework for hedonic office studies. In SDA Bocconi (Ed.), Proceedings of ERES 2010, pp. 1-4. Milano: ERES.

Koppels, P.W., Remoy, H.T. & De Jonge, H. (2010). The beauty or the beast? The influence of aesthetics on structural vacancy in the case of Amsterdam. In SDA Bocconi (Ed.), Proceedings of ERES 2010, pp. 1-4. Milano: ERES.

Prins, M., De Jonge, H. & Wamelink, J.W.F. (2010) looking back and ahead; the new 2010-2011 curriculum of RE&H. Boss Magazine, 60-63.

Van der Zwart, J ., Van der Voordt, D.J.M. & De Jonge, H. (2010) Private investments in hospitals: a comparison of three healthcare systems and possible implications for real estate strategies. HERD: Health Environments Research and Design Journal, 3(3), 70-86.

2009

De Jonge, H., Arkesteijn, M.H., Den Heijer, A.C., Vande Putte, H.J.M., De Vries, J.C. and Van der Zwart, J. (2009), Corporate real estate management: Designing a Real Estate Strategy. Delft: Delft University of Technology, 2nd edition.

Koppels, P.W., Remøy, H.T. & De Jonge, H. (2009) The economic value of image. PropertyNL Research Quarterly, 31-38.

Koppels, P.W., Remøy, H.T., De Jonge, H. & Weterings, A (2009) The added value of image: a hedonic office rent analysis key issues in successful transformations of industrial heritage. In A.A.J.F. van Dobbelsteen (Ed.), 3rd CIB international conference on smart and sustainable built environments SASBE 2009, pp. 1-8. Delft: TU Delft.

Remøy, H.T , Koppels, P.W. & De Jonge, H. (2009) Structural vacancy of office buildings: the influence of buildings- and location. In s.n. & A.A.J.F. van Dobbelsteen (Eds.), Proceedings of ERES conference 2009, pp. 1-8. Stockholm: s.n.

Remøy, H.T. & De Jonge, H. (2009) Transformation of mono-functional office areas. In A.A.J.F. van den Dobbelsteen (Ed.), 3rd CIB international conference on smart and sustainable built environments SASBE 2009, pp. 1-6. Delft: TU Delft.

Remoy, H.T. & De Jonge, H. (2009) Transformation of mono-functional office areas. In A. van den Dobbelsteen & M. van Dorst (Eds.), Smart building in a changing climate, 159-169. Amsterdam: Techne Press.

Van der Zwart, J., de Jonge, H. & Van der Voordt, D.J.M. (2009) Private investment in hospitals: a comparison of three healthcare systems and possible implications for real estate strategies. Conference Proceedings 3TU Research Day, Innovation in design and management of health care facilities and healthy environments, pp. 1-8. Rotterdam: TU Delft.

2008

De Jonge, H. & Den Heijer, A.C. (2008) Corporations and Cities: Envisioning Corporate Real Estate in the Urban Future. In H.J.M. Vande Putte (Ed.), Corporations and cities colloquium, Brussels, 12-17. Delft: Publikatieburo Bouwkunde.

De Vries, J.C., De Jonge, H. & Van der Voordt, D.J.M. (2008) Impact of real estate interventions on organisational performance. Journal of Corporate Real Estate, 10(3), 208-223.

Den Heijer, A.C., de Vries, J.C. & De Jonge, H. (2008) Expert Workshop: Building Knowledge Cities. In H.J.M. Vande Putte (Ed.), Corporations and cities colloquium, Brussels, 50-59. Delft: Publikatieburo Bouwkunde.

Koppels, P.W., Remoy, H.T. & De Jonge, H. (2008). The Role of International Office Locations in Urban Competitiveness. In H. Vande Putte (Ed.), Corporations and cities colloquium Brussels, 128-129. Delft: Publikatieburo Bouwkunde.

Remoy, H.T., Koppels, P.W. & De Jonge, H. (2008) The Legacy of the Modern Movement: Appreciation of Office Locations in the Context of the Contemporary City. In H.J.M. Vande Putte (Ed.), Corporations and Cities colloquium, Brussels, 1-8. Delft: Publikatieburo Bouwkunde.

Volker, L, Lauche, K, Heintz, J.L. & De Jonge, H. (2008) Deciding about design quality: design perception during a European tendering procedure. Design Studies, 29(4), 387-409

2007

Bekkering, H.C., Hauptmann, D., Den Heijer, A.C., Klatte, J, Knaack, U , Van Manen, S, Van Roosmalen, P.K.M., Van Bilsen, A., Stolk, E.H., De Jong, T.M., Van Esch, M.M.E., Haupt, P.A., Van Dorst, M.J., Van den Heuvel, D., Oostendorp, W.C.W, Meijer, S, Visser, R.C., Eekhout, A.C.J.M., Van Ettekoven, J.G. van, Nottrot, R.J., Faber, O.G.T., Sariyildiz, I.S., Bittermann, M.S., Ciftcioglu, O, Van Timmeren, A., Oosterhuis, K., Hubers, J.C., Claessens, F, Van Duin, L, Wilms Floet, .W.W.L.M., Schrijver, LS, Peek, G.J., Ritoe, RV, De Jonge, H., Van der Toorn Vrijthoff, W., Van der Voordt, D.J.M., Gruis, V.H., Geraedts, R.P. & Prins, M. (2007) The Architecture Annual 2005-2006. Rotterdam: 010 Publishers.

De Jonge, H. (2007). Leermeesterprijs for Hans de Jonge. In H. Bekkering, D. Hauptmann, A. den Heijer, J Klatte, U. Knaack & S. van Manen (Eds.), The Architecture Annual 2005-2006, pp. 22.. Rotterdam: 010 publishers.

De Jonge, H. (2007) Gebiedsontwikkeling voor een kenniseconomie. Real Estate Magazine, 10(50), 12-15.

De Jonge, H. (2007) Nummer 50. Real Estate Magazine, 10(50), 62-62.

De Jonge, H. (2007) Pri(e)mus inter pares? In: Hugo's ruimte. Liber Amicorum voor Hugo Priemus, 97-99. Delft: Faculteit Techniek, Bestuur en Management, TU Delft.:

De Jonge, H., Arkesteijn, M.H., Den Heijer, A.C., Vande Putte, H.J.M. and J.C. De Vries, J.C. (2007) Corporate Real Estate Management, Designing an Accommodation Strategy in four steps. Delft, Delft University of Technology, 1st edition.

Gehner, E. & De Jonge, H. (2007) Decision-making practice in the Dutch real estate development sector. In J. Borgbrant & B. Atkin (Eds.), 4th Nordic Conference on Construction Economics and Organisation, pp. 1-12. Lulea, Sweden: Lulea Univ. of Technology.

Koppels, P.W., Remøy, H.T. & De Jonge, H. (2007) Office characteristics and the fitness-for-use; a Delphi-approach. In: 14th annual European Real Estate Society Conference. London: 14th annual European Real Estate Society Conference.

Remøy, H.T. , Koppels, P.W., Van Oel, C.J. & De Jonge, H. (2007) Characteristics of vacant office buildings: A Delphi-approach. In P. Boelhouwer, D. Groetelaers, A. Ouwehand & E. Vogels (Eds.), Sustainable Urban Areas, pp. 1-18. Delft: OTB.

Remøy, H.T. & De Jonge, H. (2007) Transformation and typology. In W. Bakens, N.J. Habraken, K. Kamimura & Y. Utida (Eds.), Building stock activation 2007, 163-170. Tokyo: THEI Printing Co..

Volker, L. & De Jonge, H. (2007) Methodological reflections on case-research for partner selection in architecture. In prof. C.O. Egbu & M.K.L. Tong (Eds.), Proceedings PRoBE07 Conference Glasgow, 459-468). Glasgow: Glasgow Caledonian University.

2006

De Jonge, H. (2006) Junior Reports. Rassegna, 146-153.

De Jonge, H. (2006) Lo sviluppo immobiliare come sfida per la professione architettonica / Real estate development as a challenge for the profession. Rassegna, 146-153.

De Jonge, H. and the CREM research group (2006) Strategievorming in onzekerheid. Real Estate Magazine, 49(9), 22-26.

Chen, Y, Wigmans, G & De Jonge, H. (2006) Land reform and land development in Shanghai's transformation. In Z.H.A.O. Zhen-yu, Y.U. Ming-xuan, F.E.N.G. Chang-chun & D.U.A.N. Lin-ling (Eds.), Advancement of Construction Management and Real Estate, 496-505). Hong Kong: The Chinese Research Institute of Construction Management.

Gehner, E., De Jonge, H. & Halman, J.I.M. (2006) Risk management in the real estate development sector: a survey. In D. Amaratunga, R. Haigh, R. Vrijhoef, M. Hamblett & C. van den Broek (Eds.), Conference proceedings of the 6th inern. postgraduate research conference, 541-552). Salford: Research Institute for the built and human environment.

Sebastian, R, De Jonge, H, Prins, M. & Vercouteren, J (2006) Managing Multi-architect collaborative design; case study of design competition for Ground Zero in New York. In G. Aouad, M. Kagioglou, K. Harris, H. de Ridder, R. Vrijhoef & C. van den Broek (Eds.), 3rd International SCRI Symposium, 251-268. Salford: University of Salford.

Van den Dobbelsteen, A., Pullen, W.R. & De Jonge, H. (2006) Pleasant, Productive and Possible. The future of sustainable work, Conference paper. SASBE conference, Shanghai, China.

2005

Gehner, E. & De Jonge, H. (2005).A behavioral perspective on risk management in real estate development. In Y. Wang & Q. Shen (Eds.), Conference on construction & real estate management : challenge of innovation in construction and real estate, Vol 2, 739-744. S.l.: China Architecture & Building Press.

Van Meel, J.J., De Jonge, H. & Dewulf, G. (2005) Office cultures: international differences in workplaces design. In J. Worthington (Ed.), Reinventing the workplace, 81-96). Amsterdam: Elsevier.

2004

De Jonge, H. & De Vries, J.C. (2004). The influence of corporate real estate on corporate performance. In L. Ruddock, M. Sexton, D. Amaratunga, G. Aouad & M. Kagioglou (Eds.), 4th international postgraduate research conference Vol. 2, 745-753. Manchester: University of Salford.

De Vries, J.C., Den Heijer, A.C. & De Jonge, H. (2004) Benchmarking HBO vastgoed, vergelijk van vastgoedportefeuilles. Delft: Faculteit Bouwkunde TU Delft .

Den Heijer, A.C. & De Jonge, H. (2004) Sturen van vastgoedprocessen. In: D.J.M. van der Voordt, A.C. den Heijer & M.H. Arkesteijn (Eds.) Inleiding Vastgoedmanagement. Delft, Publikatieburo Bouwkunde, Faculteit Bouwkunde TU Delft, 68-81.

Van den Dobbelsteen, A.A.J.F., Cauberg, J.J.M., De Jonge, H. & Kristinsson, J. (2004) Sustainable offices - effective solutions for office organisation, space use, lifespan, design and technology (cd-rom). In s.n (Ed.), Proceedings of CIB world building congress 2004 - Building for the future, pp.1-10. Toronto: CIB.

2003

Graafland, A.D., Bekkering, H.C., De Jonge, H., Ebbinge, G. & Sipkes, J. (Eds.). (2003) The Architecture Annual 2001 – 2002. Delft University of Technology. Rotterdam: 010 publishers.

Sebastian, R., De Jonge, H., Prins, M. & Vercouteren, J. (2003) C 4130 Managing by designing. Deel C: thema's, pp. 1-28. Den Haag: Twijnstra Gudde.

Soeter, J.P., De Jonge, H. & Meuwsen, T.J.N. (2003) Bouwen tussen stagnatie en innovatie. Bouwmarkt, 43(12), 11-14.

Soeter, J.P., De Jonge, H. & Meuwsen, T.J.N. (2003) Bouwen tussen stagnatie en innovatie. Delft: Publikatieburo Bouwkunde.

Soeter, J.P., De Jonge, H.. & Meuwsen, T.J.N. (2003) Utiliteitsbouw en economie. Onderzoek in opdracht van Ministerie van Volkshuisvesting, Ruimtelijke Ordening en Milieubeheer; Rijksgebouwendienst; Bureau Coördinatie Bouwbeleid. Delft: Publikatieburo Bouwkunde, Facultieit Bouwkunde TU Delft.

Van den Dobbelsteen, A.A.J.F. & De Jonge, H. (2003) Office work and sustainability - an environmental assessment and comparison of traditional and innovative office concepts In J. Yang, P.S. Brandon & A.C. Sidwell (Eds.), Smart and sustainable built environment, Sasbe2003, pp. 1-9. Brisbane: Queensland University of Technology, Australia.

2002

De Jonge, H. (2002) De ontwikkeling van Corporate Real Estate Management. Real Estate Magazine, 5(22), 8-12.

De Jonge, H. (2002) What endures is what is dear. In: van Kasteren, J., Croes, H., Dewever, M. and Haas, M. (eds) Buildings that last: guidelines for strategic thinking. Rotterdam, NAi Uitgevers.

De Jonge, H. e.a. (2002) Vormgeven aan verandering. De toekomst van bouw- en vastgoedmanagement Delft: Faculteit Bouwkunde TU Delft.

De Jonge, H. & Van Meel, J.J. (2002) Vormgeven aan verandering. In H. de Jonge (Ed.), Vormgeven aan verandering, 121-135). Delft: Faculteit Bouwkunde TU-Delft.

Soeter, J.P., De Jonge, H.de & Meuwsen, T.J.N. (2002) De bouw die blijft. Delft: Soeter, J.P., De Jonge, H. & Meuwsen, T.J.N. (2002) Forse teruggang utiliteitsbouw verwacht. Opleving sterk afhankelijk van economische groei. Bouwmarkt, 42(12), 13-17.

Publikatieburo Bouwkunde TU Delft.

Van Meel, J.J., Teunissen, L.M.J. & De Jonge, H. (2002) Verkenning van de Nederlandse architectuurpraktijk. Nijmegen: Sun.

2001

De Jonge, H. (2001) De Vijfde Nota Ruimtelijke Ordening in perspectief. Prima beleidspretenties, maar zwakke implementatie en instrumentatie. Building Business, 3(2), 20-23.

De Jonge, H. (2001) Eindrapport rekencommissie Renovatie. vertrouwen is goed, controle is beter. 's-Hertogenbosch.

De Jonge, H. & Peek, G.J. (2001) De weg naar volwassenheid: BMVB 1991-2001 in cijfers. In: Vormgeven aan verandering. De toekomst van bouw- en vastgoedmanagement. Delft: Faculteit Bouwkunde TU Delft, 9-15.

De Jonge, H., Soeter, J.P. & Meuwsen, T.J.N. (2001) Kwaliteit utiliteitsgebouwen moet omhoog. Bouwmarkt, 41(2), 11-15.

De Jonge, H. & Van Meel, J. (2001) Reflectie op de uitkomsten van de elektronische enquête onder deelnemers op het symposium. In: Vormgeven aan verandering. De toekomst van bouw- en vastgoedmanagement. Delft: Faculteit Bouwkunde TU Delft, 121-135.

De Jonge, H., Van Meel, J., Raaphorst, C. & Van Loon, P.P. (2001) Vormgeven aan verandering. De toekomst van bouw- en vastgoedmanagement. Delft: Faculteit Bouwkunde TU Delft.

De Jonge, H., Soeter, J.P. & Meuwsen, T.J.N. (2001) Meer vervanging, minder uitbreiding. Architectuur NL, 56(3), 14-15.

De Jonge, H., Soeter, J.P. & Meuwsen, T.J.N. (2001) Utiliteitsbouw blijft vrije val bespaard. Bouwmarkt, 41(12), 13-18.

2000

De Jonge, H., Den Heijer, A.C., and De Puy, L. (2000) Analyse Universitaire Vastgoedplannen. Delft: Delft University of Technology.

De Jonge, H.et al. (2000) M4 Beheren. Reader. Delft, Faculteit Bouwkunde TU Delft.

De Jonge, H., Kooijman, D. & Van der Toorn Vrijthoff, W. (2000) De positie van het midden- en kleinbedrijf bij het verkrijgen van vestigingspunten in geplande winkelcentra. Eindrapportage. Delft: Faculteit Bouwkunde TU Delft.

De Jonge, H., Kooijman, D. & Van der Toorn Vrijthoff, W. (2000) Verslag rondetafelgesprek 4 juni 2000 over de positie van het midden- en kleinbedrijf bij het verkrijgen van vestigingspunten in geplande winkelcentra. Faculteit Bouwkunde TU Delft.

De Jonge, H., Soeter, J.P. & Meyer, V.J. (2000) De verbouwing van Nederland. Bouw 2, Bijlage, 14-15.

Dewulf, G., Krumm, P. & De Jonge, H. (Eds.) (2000), Successful corporate real estate strategies. Nieuwegein: Arko Publishers.

De Puy, L., Dewulf, G.P.M.R. & de Jonge, H. (2000) Sturing op de portefeuille. Onderzoeksrapportage en Praktijksamenvatting. Den Haag: Ministerie van VROM/Rijksgebouwendienst & Delft: Faculteit Bouwkunde TU Delft.

Xu, Q. & De Jonge. H. (2000) Real estate portfolio optimisation under uncertainty. Real Estate Magazine 3(13), 34-38.

1999

De Jonge, H. (1999) Kansen voor bouw- en vastgoedsector. Building Business 1.

De Jonge, H., Soeter, J.P. & Meuwsen, T.J.N. (1999) Investeren in vernieuwing. Bouw 54(2), Bijlage, 18-21.

Krumm, P.J.M.M., Dewulf, G.P.M.R. & De Jonge, H. (1999) Managing key resources and capabilities. In K. Alexander & .K Alexander (Eds.), Facilities Management European practice 1999, 83-86.

Krumm, P.J.M.M., Dewulf, G.P.M.R. & De Jonge, H. (1999(The impact of evolving structures on managing corporate real estate. Journal of Corporate Real Estate 2(1), 58-67.

Van Meel, J.J., De Jonge, H. & Dewulff, G.P.M.R. (1999) Typically British? A perspective on British office design. Environments by Design 3(1), 39-52.

1998

De Jonge, H. (1998) Projectmanagement in perspectief. B.O.S.S. Magazine 6, p.4.

De Jonge, H. , Priemus, H., Kloosterman, R.C., Soeter, J.P. & Meuwsen, TJ.N. (Eds.). (1998) Investeren in infrastructuur en utiliteitsbouw. Vastgoedmarkt 1.Delft: Delft University Press.

De Jonge, H., Soeter, J.P. & Meuwsen, T.J.N. (1998) Utiliteitsbouw profiteert van modernisering van de economie. Bouwprognoses 1998-2003. Den Haag: Ministerie van VROM, Rijksplanologische Dienst, 1-18.

Krumm, P.J.M.M., Dewulf, G.P.M.R. & De Jonge, H. (1998) Managing key resources and capabilities: pinpointing the added value of corporate real estate management. Facilities 16(2), 372-379.

Van der Toorn Vrijthoff, W., De Jonge, H., Draijer, M.M., Van Delft, A. & Guyt, P. (1998) Werk aan de winkel. De toekomst van de kantorenmarkt 1995-2015. Delft: Faculteit Bouwkunde TU Delft.

Van der Toorn Vrijthoff, W. & De Jonge, H. (1998) Vooral werk aan de winkel in binnensteden. Vastgoedmarkt financieel 25(5), 37-41.

Van der Toorn Vrijthoff, W. & De Jonge, H. (1998) Werk aan de winkel. In: Meijer, D. (ed) Bouwkostenkunde & Huisvestingseconomie 17(2), 4-9.

1997

De Jonge, H. (1997) Vraag en aanbod: industrieterrein en kantoorlocatie. In Kooijman, D.C. & Philipsen, E. (red.) Bedrijvenparken in Nederland. Ontwerp en (her)ontwikkeling, trends en nieuwe opgaven! Delft: Onderzoeksinstituut OTB / Delft University Press, 5-9.

De Jonge, H. (1997) Trends in Corporate Real Estate. Congres Trends op de vastgoedmarkt, Amsterdam.

De Jonge, H. & Soeter, J.P. (1997) Vervangingsmarkt utiliteitsgebouwen onderbelicht. Bouwmarkt 37(2), 8-10.

Van Meel, J.J., De Jonge, H. & Dewulf, G.P.R.M. (1997) Workplace design: Global of Tribal? In: J. Worthington et al. (eds) Reinventing the Workplace. Oxford, UK: Architectural Press, 50-63.

1996

De Jonge, H. (1996) De toegevoegde waarde van concernhuisvesting. Paper presented at NSC-Conference 15 October 1996.

Krumm, P.J.M.M., with Dewulf, G.P.R.M. & De Jonge, H. (1996) The Need for Corporate Alignment. In: K. Alexander (ed.) Facilities Management: European Practice 1996, European Practice. Nieuwegein: Arko, 29-33.

Van Meel, J.J., with Dewulf, G.P.R.M. & De Jonge, H. (1996) The European Workplace. In: K. Alexander (ed.) Facilities Management: European Practice 1996. Nieuwegein: Arko, 17-23.

1995

Dewulf, G.P.R.M., De Jonge, H. & Krumm, P.J.M.M. (1995) Corporate real estate managers inventariseren hun problemen. Vastgoedmarkt 22(8), 33-34.

Krumm, P.J.M.M., Dewulf, G.P.R.M. & De Jonge, H. (1995) Corporate real estate management: a state of the art. VOGON-journaal 4(12), 9-12.

1994

De Jonge, H. (1994) The future of Corporate Real Estate Management. IDRC Europe professional seminar, Amsterdam, 29-30 September 1994.

De Jonge, H. (1994) Vastgoedstrategie in de onderneming. In: L. de Jonge (red.) Het Facility Management Handboek. Nieuwegein: Arco, pp. 1-10.

De Jonge, H. (1994) Flexibiliteit op statische bouw. Bouw 49(19), 38-40.

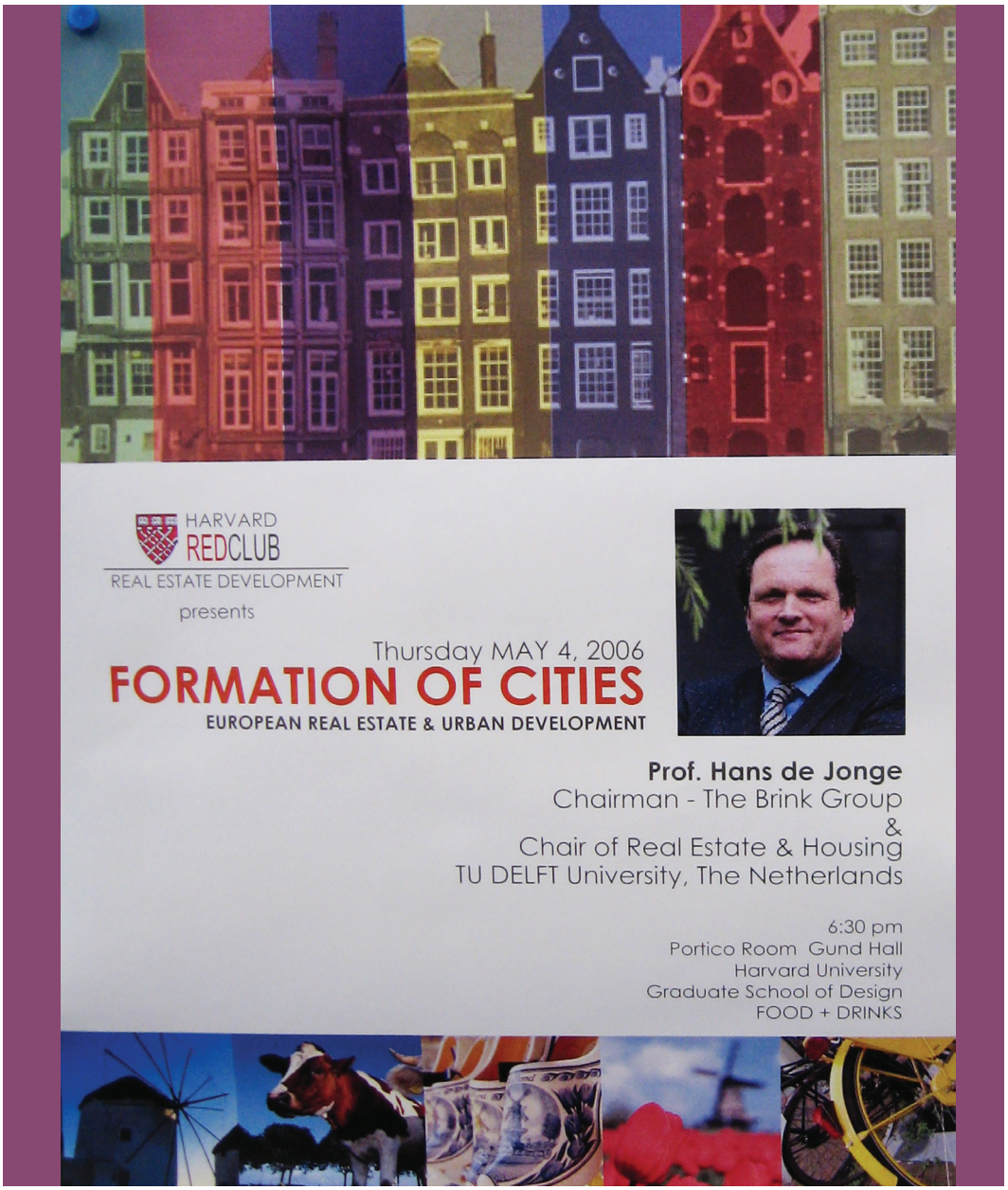
De Jonge, H. (1994) Veranderingen in (ge)bouwen voor de gebruiker. Masterclass SBV 3(2), 10-19.

De Jonge, H. & Menheere, B. (1994) Strategie voor toekomstig bouwen. BouwVisie 5(1), 4-7.

Dewulf, G. & De Jonge, H. (1994) Het kantoor van morgen. In: M.C. Oude Veldhuis & P.P. Kohnstamm (red.) Investeren in Nederland. Context voor ruimtelijk beleid en vastgoedontwikkeling. Voorburg: Vereniging Nederlandse Projectontwikkeling Maatschappij, 79-87.

Dewulf, G.H. & De Jonge, H. (1994) Toekomst van de kantorenmarkt 1994-2015. Nieuwegein: Starke Diekstra.

Dewulf, G.H. & De Jonge, H. (1994) Toekomst van de kantorenmarkt, crisis of kans? Vastgoedmarkt 21(11), 34-37.





Overview of Hans' PhDs

1998

P.P. van Loon, Interorganisational Design: a new approach to team design in architecture and urban planning. Promotors: H. de Jonge & L.A. van Gunsteren

1999

P.J.M.M.Krumm, Corporate Real Estate Management in Dutch Multinational Corporations, A Comparative Analysis of Dutch Corporations. Promotor: H. de Jonge

D. Kooijman, Machine en theater. Ontwerpconcepten van winkelgebouwen. Promotors: H. Priemus, H. de Jonge & G. van Zeijl

2000

J.J. van Meel, The European Office. Office Design and National Context. Promotor: H. de Jonge

2002

P. van der Schaaf, Public Real Estate Management: Challenges for Governments. Promotors: H. de Jonge & G.P.M.R. Dewulf

C.C.A.M. van den Thillart, Consumentgerichte industrialisatie in de woningsector. Promotors: H. de Jonge & J. M. Post

Q. Xu, Risk Analysis on Real Estate Investment Decision-making. Promotors: H. de Jonge & R.M. Cooke

2004

A.A.J.F. van den Dobbelsteen, The sustainable office: An exploration of the potential for factor 20 environmental improvement of office accommodation. Promotors: J.J.M. Cauberg, H. de Jonge & J. Kristinsson

2006

G. Peek, Locatiesynergie: Een participatieve start van de herontwikkeling van binnenstedelijke stationslocaties. Promotors: H. de Jonge & J.L.A. Geurts

2007

R. Sebastian, Managing Collaborative Design. Promotor: H. de Jonge; copromotor: M. Prins

Y. Chen, Shanghai Pudong. Urban Development in an Era of Global local Interaction. Promotor: H. de Jonge; daily supervisor: G. Wigmans.

J.C. de Vries, Presteren door vastgoed. Onderzoek naar de gevolgen van vastgoedingrepen voor de prestatie van hogescholen. Promotor: H. de Jonge; copromotor D.J.M. van der Voordt

2008

E. Gehner, Knowingly taking risk. Investment decision making in real estate development. Promotors: H. de Jonge & J.I.M. Halman

2010

J.P. Soeter, Bouw- en Voorraadeconomie 1960-2025. Flow-stock-trend-onderzoek naar omvang, samenstelling, voorraadmutatie en toekomst van de investeringen in de Nederlandse utilitaire gebouwenvoorraad. Promotors: H. de Jonge & A. Hordijk

H.T. Remøy, Out of Office: A study on the Cause of office vacancy and transformation as a means to Cope and Prevent. Promotor: H. de Jonge; copromotor: D.J.M. van der Voordt

L. Volker, Deciding about Design Quality. Value judgements and decision making in the selection of architects by public clients under European tendering regulations. Promotors: H. de Jonge & K. Lauche; daily supervisor: J. Heintz

T.A. Daamen, Strategy as Force. Towards effective Strategies for Urban Development Projects: The Case of Rotterdam City Ports. Promotor: H. de Jonge; copromotor: G. Wigmans

2011

R. Vrijhoef, Supply chain integration in construction: the emergence of integrated and repetitive strategies in a fragmented and project-driven industry. H.A.J. de Ridder, H. de Jonge & B.A.G. Bossink

2012

E.W.T.M. Heurkens, Private Sector-led Urban Development Projects: Management, Partnerships & Effects in the Netherlands and the UK. H. de Jonge; copromotor: F.A.M. Hobma

2014

C. Riratanaphong, Performance measurement of workplace change in two different cultural contexts. Promotor: H. de Jonge; copromotor: D.J.M. van der Voordt

J. van der Zwart, Building for a better hospital: value-adding management & design of healthcare real estate. Promotor: H. de Jonge; copromotor: D.J.M. van der Voordt

2016

J.M. Keenan, Understanding Adaptive Capacity in Real Estate. Promotors: H. de Jonge & L.B. Janssen-Jansen

F.T.J. Curvelo Magdaniel, Technology campuses in Cities. A study on the relation between innovation and the built environment at the urban area level. Promotor: H. de Jonge; copromotor: A.C. den Heijer

PhD candidates with work in progress

H.J.M. Vande Putte, Devising and evaluation of a pattern-based method to assess the long term implementability of corporate accommodation strategies. Promotor: H. de Jonge; copromotor: F.A.M. Hobma

M.H. Arkesteijn, Preference-based accommodation strategy design. Promotors: H. de Jonge & J.B. Barzilai; daily supervisor: R. Binnekamp

P.W. Koppels, Function - Form - Finance - Future. Promotor: H. de Jonge; copromotor: F.A.M. Hobma

N.A.A. Alghamdi, University Campuses in Saudi Arabia: Sustainability Challenges and Potential Solutions. Promotor: H. de Jonge; copromotor: A.C. den Heijer



Hans de Jonge signs the PhD diploma of Jackie de Vries

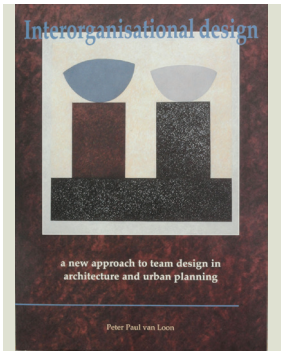


The defence committee of the PhD defence of Chaiwat Riratanaphong



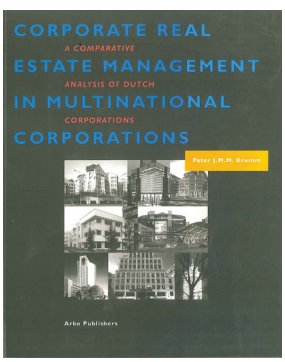
Hans de Jonge with the young dr. Pity Jongens-Van der Schaaf and her husband.

Summaries of PhD theses



1. Van Loon, P.P. (1998) Interorganisational Design: a new approach to team design in architecture and urban planning. Publicatiebureau Bouwkunde, Delft University of Technology.

Usually, a comprehensive design team consisting of all the organisations involved is responsible for the design process and its results. In this PhD thesis, Peter Paul van Loon explores the question of how and under which conditions designers in architecture and urban planning should work together to achieve the optimum result. A designer is defined here as anyone who has an impact on a design, whether professional or not, such as structural engineers, costing experts, traffic engineers, building contractors, governmental planners, investors, users and local residents. Designers are often confronted with huge solution spaces filled with a 'combinational explosion' of possible sub-solutions supplied by a host of specialists. Just like in the real estate and project management discipline, the mathematical decision-making techniques from Operations Research required a new interpretation. In this thesis, a new methodology called 'interorganisational design' is developed to support the collaboration between all actors involved and to cope with too many options and too many opinions. Instead of following the classic theory on decision-making that takes little account of the processing of differences of opinion, conflicting goals, power imbalances and lack of information and rationality, this study adopts decision-making models from political science and negotiation theory that reflect the necessarily multi-actor negotiations.



2. Krumm, P.J.M.M. (1999) Corporate real estate management in multinational corporations. A comparative analysis of Dutch corporations. Nieuwegein: Arko Publishers.

In the past, many corporations maintained large centralised departments to manage its real estate. Based on in-depth case studies of eight Dutch multinational corporations, the PhD thesis of Peter Krumm analyses the changing role and position of the corporate real estate function in connection to the structure and strategies of multinational corporations. In order to identify patters in the evolution of real estate departments, various theories of strategic management were studied and integrated into a research framework. In order to pinpoint the added value of today's corporate real estate departments, an analysis was made of the products and services provided by the departments, which were based on the concept of synergy. Many of the operational activities showed that they have been either delegated to operating companies or outsourced to service providers. This has resulted in a new role for real estate departments. This new role tends to focus on mediating between in- and external parties in order to enable economies of scale in the acquisition of products and services and in the in-house use of resources and capabilities. The thesis also includes an overview of the evolution and added value of corporate real estate management.



3. Kooijman, D. (1999) Machine en theater. Ontwerpconcepten vanwinkelgebouwen. Rotterdam: 010 Uitgevers.

In his PhD thesis on "Machine and theatre: Design concepts for shop buildings", Dion Kooijman investigates the function and the significance of shop space. The study focuses on six types of shops: the arcade, the department store, the supermarket, the shopping centre, the big-box retail park, and the virtual shop. Before the visual merchandising sales methods became dominant, there was an oral consumption culture. The virtues of the goods were extolled by verbal means. Theatre formed part of this oral culture. Machine, on the other hand, is a characteristic peculiar to visual merchandising. The display of goods in the shop demands from the consumers that they use their eyes. This study investigates the part played in visual merchandizing by shop buildings. The theoretical starting point is the work of Baudrillard and McLuhan. Examination of the history of shop buildings and comparison of the six shop types sheds more light on the contribution of shop space to the sales methods. Archive research, project analyses and case studies of Dutch projects and shop companies provided a clear insight in the development of hybrid shop forms, a preference for the homely space, and using the shop floor as a stage for promotions and events.



4. Van Meel, J. (2000) The European Office. Office design and national context. Rotterdam: 010 Publishers.

Office buildings are icons of today's global knowledge economy. They dominate the contemporary city and accommodate more than half of the working population. This PhD thesis of Juriaan van Meel shows that office design is not just a translation of technological and functional requirements, but is highly influenced by the local urban context, market conditions, labour relations, culture and regulations. Based on an interpretivist research philosophy and a comparison of office design in the UK, Germany, Sweden, Italy and the Netherlands, The European Office addresses key issues in office architecture, ranging from the design of virtual offices to high-rise buildings and from traditional cellular offices to modern non-territorial activity based offices. The clear historical description of office design from the early 20th century till nowadays, the many examples from the five investigated European countries, and the resulting explanatory framework can be used as a guide for international architects and clients and real estate managers to create successful office buildings.



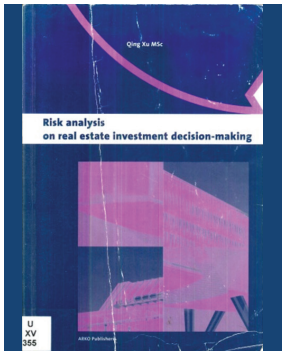
5. Van der Schaaf, P. (2002) Public Real Estate Management. Challenges for Governments. Delft: DUP Science.

National governments own and lease many buildings to accommodate their civil servants. Managers of public real estate have to weigh up political, financial and functional needs. The balance between these interests is reflected in the positioning of public real estate and differs in various Western countries. The PhD thesis by Pity Jongens – van der Schaaf explores the relation between contextual developments and the increasing dynamics in public real estate management, and why similar contextual developments lead to different strategies regarding public real estate management. Based on an extensive comparison between Canada, the Netherlands, the USA and the UK, the author developed a conceptual framework to explain different approaches. By applying scenario analyses the effects of different public real estate strategies are made clear. Based on this knowledge governments will be better equipped to make well-founded decisions about real estate.



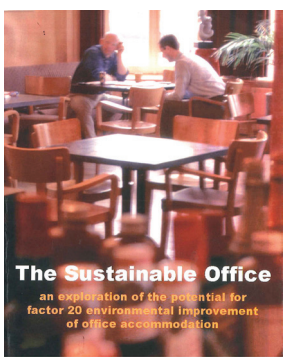
6. Van den Thillart, C.C.A.M. (2002) Consumentgerichte industrialisatie in de woningbouwsector. Virtuele Kits als instrument voor benchmarking, variantvorming en selectie. Delft: Eburon.

The industrial production of components that can be assembled together in various ways to fulfil customers' individual needs under economic production conditions is known as Mass Customization (MC). By choosing the appropriate components, a customer is able to assemble a product that satisfies his individual needs. In the sector of detached housing, it is usual to offer standard budget housing types and to create added value by offering variants that deviate from the standard type. With support of IT and flexible production techniques, MC concepts can be applied to dwellings as well. In this PhD thesis, Caspar van den Thillart developed MC models, based on the concept of the virtual Kit. A virtual Kit consists of prefabricated building components that can be assembled to complete houses at the building site. In the MC model, all supporting IT software programmes such as customer's choices, costs, virtual reality systems, E-commerce and technical specifications are interconnected and designed to economize the whole supply chain.



7. Xu, Q. (2002) Risk Analysis on Real Estate Investment Decision-making. Nieuwegein: Arko Publishers.

The issues with real estate investment decisions regarding risk are either that the projects evaluation is not based on extensive property and market analysis or the lack of extensive portfolio risk analysis. Therefore, this study by Qing Xu addresses how to analyse and quantify risk and uncertainty involved in real estate investments. The focus of this research is on the market risk for real estate investments including operational risk, credit risk, liquidity risk, and market risk. It concentrates on risk analysis for direct as well as indirect real estate investments. The selected methods used are case studies, expert opinions, simulation and optimisation, and econometric analysis. This research highlights the information and data needed to mitigate the risks associated with real estate investment and shows beneficial modelling techniques for risk analysis. The outcome of this thesis is a tool that consists of three parts. Part A) quantification method for measuring the uncertainty in real estate variables. Part B) Simulation model for generating probability distribution of the return. Part C) Optimisation model for generating the best portfolio.



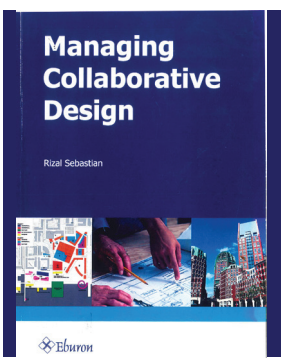
8. Van den Dobbelsteen, A. (2004) The Sustainable Office. An exploration of the potential for factor 20 environmental improvement of office accommodation. Delft: Faculty of Architecture, Delft University of Technology.

For a better-spread wealth and a balance between economy and ecology, by the year 2040 the environmental load of our commodities needs to be reduces by a factor 20. This general goal can also be applied to the building sector. The PhD thesis of Andy van den Dobbelsteen explores effective sustainable solutions for office accommodation. His research not only focuses on technology, but also involves the time and space factor, and the factor preceding these are: the organisation of office work, including New Ways of Working, and its impact on the ecological footprint. New methods have been developed to enable environmental assessment of the building design, the lifespan of the building and its components, the use of space on the urban and building scale, and different office concepts including telework. The case studies and typological studies resulted in a clear understanding of what is effective and what is not. It is concluded that in case of combining all possible measures to create sustainable offices, a factor 50 would be feasible. In less optimal circumstances a factor 20 should still be possible.



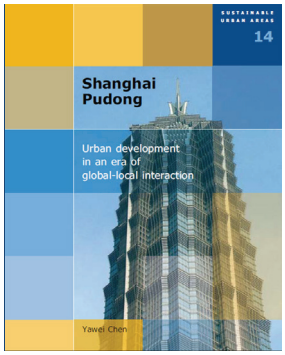
9. Peek, G-J. (2006) Locatiesynergie: Een participatieve start van de herontwikkeling van binnenstedelijke stationslocaties. TU Delft. Delft: Eburon.

The driver to conduct this research on "A participative start for redevelopment of inner city station areas" was the dissatisfaction with the often long and time consuming process of redeveloping inner city station areas in the Netherlands, resulting in delayed societal benefits, waste of time and money and a likelihood of disappointing end-results. To solve this problem, Gert-Joost proposes a new way of dealing with the objectives of the actors, which should be 'knotted' rather than piled up, i.e. the initiator and other shareholders with a long-term commitment to the location should develop a shared view of the transformation based on a joint orientation on possible synergies. Location synergy focuses on the added value of linking the use of the location to the long-term objectives of the actors involved. The used research approach is research by design. Rather than aiming to verify a hypothesis, it focuses on designing an intervention concerning the redevelopment process of inner city train station areas. This intervention, the 'knotting' ('verknopen') method, is supposed to enhance the likelihood of a smooth process and synergy-rich end result. The research resulted in a location synergy model that provides insight in how a coherent location can add value in the phase of use.



10. Sebastian, R. (2007) Managing Collaborative design. TU Delft. Delft: Eburon.

Complex building projects require close and intensive collaboration between the design actors. In this PhD thesis, Rizal Sebastian investigates collaborative design in the conceptual architectural design phase with a focus on the elaboration of the masterplan and the development of the preliminary building designs. Based on a literature review of design management studies, theories on management complexity, architect's thinking, personal and organisational knowledge and group dynamics in design teams, and explorative case studies of four complex design projects, Sebastian developed a conceptual framework to describe the characteristics and difficulties of collaborative design and to define the challenges for design management. The research outcomes are verified using expert opinions and a case study of collaborative design in the design competition for the Ground Zero / New World Trade Center in New York.



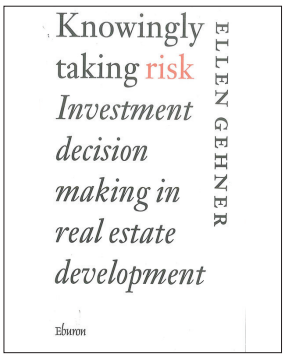
11. Chen, Y. (2007) Shanghai Pudong. Urban development in an era of global-local interaction. Amsterdam: IOS Press.

The emergence of urban mega projects has a significant social, economic and political impact on the area and the city involved. The flow of finance and the transfer of know-how across city and national borders have a major influence on the way such projects are managed and the degree of success. The combination of complexity and uncertainty can make any such development a lengthy process. Shanghai Pudong New Area development is an urban mega project that is developed at a high speed and is characterised by rapid economic growth and gradual social change. This PhD study by Yawei Chen explores how this project could be carried out at such a high speed, and what policies and management strategies were adopted to deal with complexity and uncertainty. It provides a better understanding of how this urban mega project was carried out within a context of globalization, how global and local influences affected the local urban development process, and how public-private partnerships became involved in urban development process. This qualitative research is based on a single case study with crossing the boundaries of various fields of research. It covers a wide range of topics related to area development, including globalisation, architecture, urban planning, urban economics, land policy, finance, real estate management and public-private partnership.



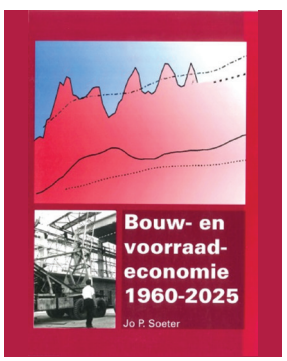
12. De Vries, J. (2007). Presteren door vastgoed. TU Delft. Delft: Eburon.

The PhD thesis of Jackie de Vries explores the possible contributions of Corporate Real Estate Management to the performance of Dutch Universities of Applied Sciences (UAS) and its added value to various stakeholders. Based on an extensive literature review, an impact analysis of CRE interventions in 17 UAS, in-depth case descriptions of 9 UAS and expert interviews, de Vries presents a conceptual model of input-throughput-output and contextual variables such as trends in society, real estate market, demography and legislation. This framework has been used to open the black box of the possible impact of CRE on profitability, productivity and distinctiveness and value parameters such as image, flexibility, innovation, user satisfaction, cost reduction, risk control, and possibilities to get CRE financed. Due to the simultaneous impact of both organisational and physical change and the dynamics of the internal and external context, it turned out to be rather difficult to identify and quantify particular cause-effect relationships between input, output and outcomes. The thesis also presents a route planner and a value map to support decision-makers in adding value by CREM.



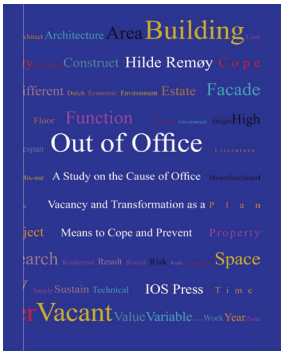
13. Gehner, E. (2008) Knowingly taking risk. Investment decision making in real estate development. TU Delft. Delft: Eburon.

Knowingly taking risk is essential to the success of the real estate development business. Investing in real estate development projects that are characterised by complexity and uncertainty implies that risks are taken. This PhD thesis of Ellen Gehner investigates how real estate development organisations have incorporated the skills and procedures that are necessary to deal successfully with the risky nature of their business. This thesis offers insight into the investment decision-making process of three prominent Dutch real estate development companies. The result is an explanatory framework that demonstrates that making appropriate investment decisions requires a sound risk analysis to support the justification of decisions, and also to address decision problems in time and to ensure that someone is accountable for the decision. Additionally, the thesis presents a literature review of risk management techniques and real estate development processes, and management practices used to ensure that risks are taken knowingly.



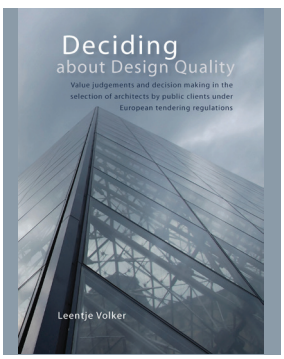
14. Soeter, J. (2010) Bouw- en Voorraadeconomie 1960-2025. Flow-stock-trend-onderzoek naar omvang, samenstelling, voorraadmutatie en toekomst van de investeringen in de Nederlandse utilitaire gebouwenvoorraad. Delft: VSSD.

Since the seventies of the former century, investments in commercial and industrial building go up and down. The PhD thesis of Jo Soeter explores what to build, where, and how much in the near future. A flow-stock-analysis has been conducted that makes a distinction in investments in extension of the current stock (related to growth) and renewal of the current building stock. Statistical data of the period 1989-2005 have been used to forecast the building stock in 2005 on a macro level and a sector level. These data have been connected to the number, m2 and financial value of building permits in the same period in order to forecast the required m2 per sector and per building type. In addition, the regional distribution of housing and work related real estate 1970-2025 has been explored to make a prognosis of the required investments in real estate in 2010-2015, using scenarios such as down-cycling and up-cycling with different percentages of economic growth and different interventions regarding new building and renovation or adaptive reuse of existing buildings. As such, this thesis contributes to a better insight in the required investments in the building stock for further extension, renewal or conversion in connection to demographic and economic trends.



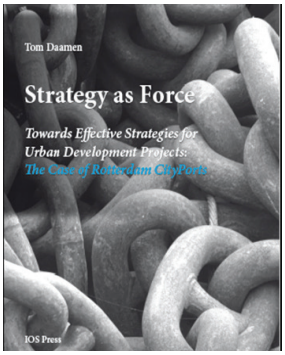
15. Remøy, H. (2010) Out of office. A study on the cause of office vacancy and transformation as a means to cope and prevent. Delft: Delft University Press / Amsterdam: IOS Press.

In this PhD thesis, Hilde Remøy explores the trends in vacancy of (Dutch) office buildings and the impact of the real estate market, location characteristics and building characteristics on risk on vacancy and opportunities and risks of adaptive re-use. As such, a matrix has been developed of market-location-building x functional, architectural, technical, juridical, financial, and sustainability issues. She used a variety of research methods, including expert interviews and a Delphi survey on user preferences, an office scan of location and building characteristics and vacancy levels of 200 office buildings, ex-post analyses of offices buildings that have been converted to other functions, ex-ante analyses of the adaptive reuse potential of vacant office building, analysis of coping strategies, and a literature review of the multifunctional use potential of office buildings in order to prevent future vacancy. The thesis presents strategies and conditions for low vacancy and strategies for extending office buildings' lifespan.



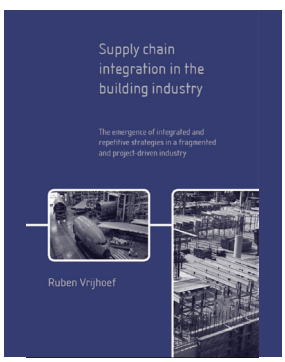
16. Volker, L. (2010) Deciding about Design Quality. Value judgements and decision making in the selection of architects by public clients under European tendering regulations. Leiden: Sidestone Press.

Architects fear that the current tender culture will harm the quality of our built environment due to a potential lack of diversity, creativity and innovation in architectural design. Due to potential risks, clients often allow legal requirements to overrule their actual wishes. The PhD thesis of Leentje Volker addresses the origin of the problems as currently experienced by public commissioning clients in architect selection. Based on four cases, the author shows that rational legal requirements clash with the psychological process of decision making. Decision makers only start to make sense of the proposed designs once they are confronted with the alternatives. It is, therefore, almost impossible for clients to design a selection procedure and announce the criteria and weighting factors up front, as required by procurement law. The scientific underpinning of the findings is found in four theoretical perspectives on value judgements in design and the latest decision theories in which sense-making, emotion, intuition, and expertise play prominent roles. The thesis presents fifteen factors for a successful design of a tender procedure to select an architect and some recommendations to change the current Dutch practice.



17. Daamen, T.A. (2010) Strategy as Force. Towards effective Strategies for Urban Development Projects: The Case of Rotterdam City Ports. Amsterdam: IOS Press.

During the initiation of a new master course Master City Developer, Tom Daamen got triggered by the Stadshavens (CityPorts) Rotterdam project. In this project, between city and port, political and economic forces have a huge influence. Founding father and first MCD director Jan van 't Verlaat, a currently retired strategist at Rotterdam's Municipal Development Corporation OBR, suggested an investigation into the project, due to the unprecedented characteristics, to explore what knowledge could help those involved in this and similar projects to approach such an assignment effectively. In his PhD thesis, Tom Daamen adopted the case as a single-case study and assessed this case by conducting many expert interviews, analysing documents, site visits, and connecting the empiric data to various scientific insights regarding the phenomenon 'strategy'. He recognised strategy as force. The term force emphasises that a strategy, as opposed to a plan, provides those involved with the capacity to respond to the continuously changing reality of an urban development project. An effective strategy not only consists of making plans, but also includes three other strategic activities: venturing, learning, and visioning. The thesis has resulted in a comprehensible theoretical model that reflects the complexity of realising contemporary urban development projects. This strategy-as-force model is useful for both scientists and practitioners.



18. Vrijhoef, R. (2012) Supply chain integration in construction: the emergence of integrated and repetitive strategies in a fragmented and project-driven industry. Amsterdam: IOS Press.

The building industry has been criticised for being wasteful, not innovative and unproductive. Reference is often made to other sectors, particularly manufacturing that apparently functions in a more effective and efficient way. An important difference between the building industry and manufacturing is the organisation and coordination of the supply chain. The PhD study of Ruben Vrijhoef explores the characteristic differences between both sectors, such as the one-off, temporal nature of building projects and the many actors involved in the definition, design, manufacture and assembly of built objects, and the initiating role of clients. By a comparative analysis of multiple constituting theories, examples from selected manufacturing industries, and cases along the building supply chain, this thesis contributes to a better understanding of what supply chain integration could and should mean for building. The descriptive-explorative hypothesis generating approach has resulted in four new hypotheses and an analytical model for supply chain integration, including ten factors: integration of business activities, collaboration and sourcing strategies, integration of processes and operation, planning and logistics, information sharing, quality management, product development and design, market approach and marketing, cultural alignment, and human resource management.



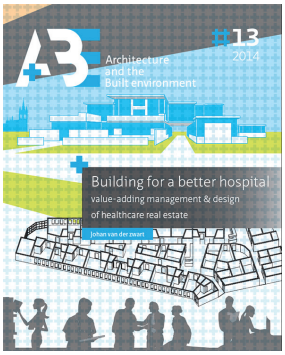
19. Heurkens, E.W.T.M. (2012) Private Sector-led Urban Development Projects: Management, Partnerships & Effects in the Netherlands and the UK. Delft: Faculty of Architecture and the Built Environment ≠ 04, TU Delft.

Erwin Heurkens explored which lessons can be learned from urban development projects in which developers take a leading role and local authorities adopt a facilitating role. The focus is on the collaborative and managerial roles of public and private actors in so-called concessions and the effect of their (inter)actions. Heurkens applies an integrative management approach to bridge often separated management theories like open systems theory and contingency theory and to combine different elements into a more holistic approach. He developed an integrative urban management model as an analytical tool to comprehend the complexity of managing such projects. The empirical part includes a systematic comparative analysis of institutional planning practices in the Netherlands and the UK on organisational tasks and responsibilities, financial risks and revenues, legal rules and requirements, and power relations, autonomy and dominance in making planning decisions. The ten Dutch cases focus on scope over depth to sketch the phenomenon of area concessions in both inner-city and urban fringe projects. The two UK cases focus on depth over scope to understand the applicability of a private sector-led approach in complex large-scale inner-city projects.



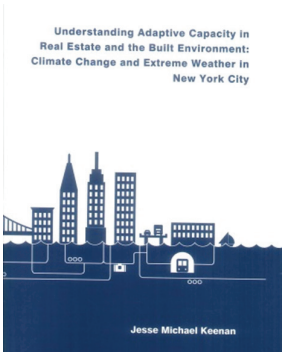
20. Riratanaphong, C. (2014) Performance measurement of workplace change in two different cultural contexts. Delft: Faculty of Architecture and the Built Environment ≠ 02, TU Delft.

In his PhD thesis, Chaiwat Riratanaphong, from Thailand, explored many performance management models and systems, criteria, and Key Performance Indicators. The insights are used to measure the impact of workplace change on organisations and employees in two cases in the Netherlands and one case in Thailand. In each case, the drivers to change and types of change have been assessed. Furthermore, the actual performance measurement activities and KPIs in practice have been compared with criteria and indicators that were found in the literature. Because of the cultural differences between the Netherlands and Thailand, the author also assessed the impact of national and organisational cultures on both the drivers to change, types of change, the implementation of change, and employee responses to change. The thesis proposes a step-by-step plan to select and prioritise the most appropriate KPIs that fit with organisational strategies and objectives.



21. Van der Zwart, J. (2014) Building for a better hospital. Value adding management & design of healthcare real estate. Delft: Faculty of Architecture and the Built Environment ≠ 13, TU Delft.

In addition to a review of the literature on CREM, adding value and hospital real estate in transition, Johan Van der Zwart used expert interviews, case studies and design assessments with Space Syntax techniques to explore if and how CEOs of hospitals, corporate real estate managers and project managers steer on adding value of CREM, which values are prioritised and why, and how values such as end-user satisfaction can be read from floorplans. His PhD thesis links various management models such as the INK model on quality management and general literature on strategic thinking to the conceptual model by de Vries (2007) on value adding management, the four-stakeholders model by Den Heijer (2011) and the DAS frame on Designing an Accommodation Strategy by de Jonge et al. (2009) to build a meta-model that connects context-mapping with adding value assessment and management tools to support design and management decisions. This meta-model has been made practically applicable by presenting a toolbox for decision-making regarding hospital buildings.



22. Keenan, J.M. (2016) Understanding Adaptive Capacity in Real Estate and the Built Environment: Climate Change and Extreme Weather in New York City. Faculty of Architecture TU Delft.

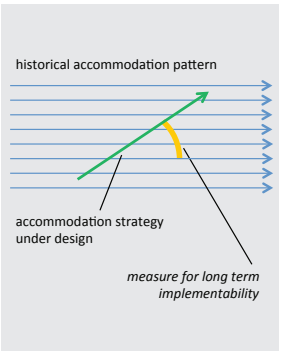
With climate change well underway, cities worldwide are struggling to develop and apply knowledge that will help advance social, environmental and economic adaptation to extreme weather and changing ecologies. Nowhere is this need more pressing than in the design, development and management of the built environment in New York City. In particular, private sector actors are challenged with developing a capacity to adapt to both known and unknown manifestations of climate change in the future. This dissertation by Jesse Keenan aims to contribute to a new conceptualization of the nature of adaptive capacity as it understood and applied across a variety of systematic scales, including the building, the real estate firm and the allied professionals operating within the built environment. This research sets the stage for designing and managing adaptive capacities that allow for the transformation of the real estate sector not just to accommodate climate change but also to address a variety of indirect consequences manifested from natural resource depletion, evolutionary markets and changing consumer demands



23. Curvelo Magdaniel, F. (2016) Technology campuses in Cities. A study on the relation between innovation and the built environment at the urban area level. Delft: Faculty of Architecture and the Built Environment ≠ 12, TU Delft.

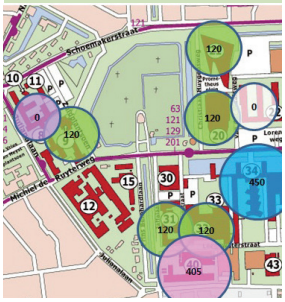
Flavia Curvelo Magdaniel examined the development of technology campuses and their role in stimulating innovation. Throughout an inductive approach in two core studies, she developed a model for understanding and managing the relationship between the built environment and innovation at the area level. The first study is an exploratory research that uncovers and positions the link between innovation and the built environment using inputs from theory (literature review) and empirical evidence (survey of 39 technology campuses). The second study is an explanatory research that clarifies the relationship between innovation and the built environment based on empirical evidence in the practice of campus development (theory building from case studies). In her model, the built environment is a catalyst for innovation in technology campuses demonstrated by location decisions and interventions facilitating five interdependent conditions required for innovation in particular contexts. The empirical evidence supporting the model is structured and converted into information available to decision makers involved in the development of technology campuses. The so-called 'campus decision maker Toolbox' provides instruments that guide planners, designers and managers of campuses and cities during different stages of campus development.

PhD work in progress



24. Vande Putte, H.J.M., Devising and evaluation of a pattern-based method to assess the long term implementability of corporate accommodation strategies.

When a designer intends to assess the long term implementability of the accommodation strategy he is designing for a corporation, he will notice that no technique is available for it. The PHD thesis of Herman Vande Putte defends that a comparison of the accommodation strategy under design with historical patterns of accommodation means and ends allows for an assessment of the long term implementability of this strategy under design. The research first devises a method for checking the implementability of an intended strategy during the strategy design process. Then data are collected for six major historical cases and many smaller ones, and patterns of accommodation means and ends are constructed on the basis of these cases. Eventually the devised method is tested: the implementability of a strategy under design is checked on the basis of the constructed patterns, and the method is evaluated.



25. Arkesteijn, M.H. Corporate real estate alignment; enhancing decision making

One of the long-standing issues in the field of Corporate Real Estate Management (CREM) is the alignment of an organisation's real estate to the corporate strategy. Research into existing CRE alignment models brought valuable insights into components and variables in this process. An in-depth classification of fourteen models showed that, from a decision making point of view, as of yet no model exists that is able to design a real estate portfolio and make use of scales for direct measurement of added value/preference and allow the aggregation of individual ratings into an overall performance rating. The Preference-based Accommodation Strategy (PAS) design procedure is a decision support tool that removes above mentioned gaps. In this procedure decision makers define variables and iteratively test and adjust these variables by designing new alternative real estate portfolios. The procedure ends when the alternative portfolio that adds most value to the organisation, i.e. has the highest overall preference score, is selected as the portfolio with optimal alignment. Results from two pilots studies reveal that the participants are able to perform this procedure. In the pilot studies a mathematical model of the PAS procedure is made. The PAS is generic in nature and can be used for a wide range of real estate portfolios. Main interface for generating design alternatives depicting the chosen alternative with the highest added value, i.e. highest overall preference score. Purple and pink circles are specific current small and large restaurants, while green and blue circles are new food facility, respectively of the size middle and large.



26. Alghamdi, N., University Campuses in Saudi Arabia: Sustainability Challenges and Potential Solutions.

Saudi Arabia is building over 20 new campuses for recently established universities. The construction began with Phase I by building a couple of colleges in each university. Phase II, in which other college buildings will be constructed, will be carried out in the near future. The identified research problems in these new campuses are: location and accessibility; environmental considerations; standardisation (uniform design); and the demographic changes of the Saudi youth population. Naif's research focuses on the environmental sustainability in campuses in Saudi Arabia. The aim of the research is to document the developments in higher education facilities in the Kingdom, to learn more about the environmental sustainability in the-first-phase of college buildings and university campuses, and to develop sustainable planning principles as guidance, in order to aid improvement of higher education facilities, saving resources, and helping future generations to study and conducting research in a healthier, smarter and greener environment. The research will make use of studying cases in Saudi Arabia, that are still under construction and cases already in use, through literature review, observations, questionnaires and interviews with decision makers.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measure for long term implementability

Hans' colleagues

This Liber Amicorum for Hans de Jonge focuses on topics that are strongly connected to his chair of Real Estate Management and Development and his "own" sections Real Estate Management (REM) and Urban Development Management (UDM). In addition, people from the other sections of the department of Management in the Built Environment – Design and Construction Management (DCM) and Housing (H) – have contributed to this book, as well as many other colleagues from our faculty and people from outside. With so many contacts it is impossible to mention all colleagues with whom Hans worked in the past 25 years. Therefore we focus on the REM and UDM section. Before we present his REM and UDM colleagues we first briefly explain how the REM section and the UDM section have evolved from a few people to two acknowledged academic groups.

How the REM and UDM section came to maturity

When Hans de Jonge was appointed as a professor of Real Estate Management and Development in 1991 the then called Real Estate & Project Management department had only a very small staff. Sjoerd Bijleveld (teaching on costs), Hans Baller (member of the committee to design a new programme), prof Frits Seyffert (appointed as professor of Building Economics in 1990) and Jo Soeter (associate professor of Building Economics) belonged to the first pioneers. Prof. Bas Menheere (Project Management) started in the same period as Hans de Jonge came in. Leon Theunissen worked as a student assistant to help to design a transitional teaching programme. So our department started with only three professors and a few staff members.

It turned out that many students were interested in real estate and project management. At the start 56 students enrolled in the new programme, including some of the current staff members: Monique Arkesteijn, Alexandra den Heijer and Ruud Binnekamp, and one year later also Juriaan van Meel, Pitty Jongens van der Schaaf and Vincent Gruis.

In 2000 the Buildings Informatics group started to work as a group within the Real Estate & Project Management department. Due to a merger with the Housing department, prof. Hugo Priemus, prof. André Thomsen and prof. Peter Boelhouwer joined the team of Hans and his colleagues in 2002. Later on prof. Monika Chao Duivis (Building Law) and prof. Anke van Hal (Sustainable Housing Transformations) became members of the department as well. In 2005 prof. Hans Wamelink succeeded Bas Menheere as professor of Design and Construction management.

Due to the high number of students that enrolled into the Real Estate & Project Management curriculum and thanks to externally funded research the department was able to grow to a department with over 60 staff members nowadays. Because of the growing capacity it was decided to organise the department in four different sections. Hans' section was called the Real Estate Management section, due to its focus on Corporate real Estate Management often called the CREM section or CREM group. Later on this section was split into two sections: REM and UDM.

REM section

At the start of the REM section the Building Informatics group worked as an autonomous group within our department. When it became clear that the vacant position of a professor of Building Informatics would not be occupied this group was connected to the chair of Hans de Jonge. In 2012 it merged with the REM section. In 2001 Hans de Jonge cofounded the Center for People and Buildings (CfPB) to connect TUD research on work environments with input from practice. This was the start of a growing capacity of people working on this topic. Over the years the CfPB knowledge centre had and still has strong connections with the Real Estate Management section, with Hans de Jonge being the chair of CfPB and Theo van der Voordt as one of its senior researchers. Because the CfPB operates as an independent and autonomous foundation, the CfPB staff is not included in the staff overview below. For more information see www.cfpb.nl and the contributions of Wim Pullen and Theo van der Voordt to this Liber Amicorum.

UDM section

At the start of the REM section the focus was on demand and supply of utility buildings, real estate portfolios and real estate markets. Later on more and more attention was also given to development projects on larger levels of scale, i.e. urban areas and entire cities. Around 2003 a separate group for Integrated Area Development ('Integrale Gebiedsontwikkeling', IGO) research and education was established, with Wout van der Toorn Vrijthoff and Gerard Wigmans as its earliest senior members. Thanks to external funding it was possible to establish the Area Development Knowledge Foundation ('Stichting Kennis Gebiedsontwikkeling', SKG) in 2007, with Friso de Zeeuw as an externally funded 'Professor of Practice' and Agnes Franzen as the current director. In 2012, the Urban Area Development (UAD) group became a separate section. In 2015 the UAD section was renamed Urban Development Management (UDM). In April 2015 Ellen van Bueren joined Friso de Zeeuw as full-time professor and chair of Urban Development Management. For more information, see www.gebiedsontwikkeling.nu and the contributions of the UDM section to this Liber Amicorum.

REM and UDM staff

Due to the dynamic context the composition of the REM and UDM sections has continuously changed, both regarding academic staff and supporting members. Below we show the staff members that joined or still join Hans de Jonge in alphabetical order, be it tenured or non-tenured, part-time or full-time, for a couple of years or for a very long period. People that only shortly joined one of the sections while working on a project, research fellows that shortly joined us, student assistants and external PhD candidates are not included. Being appointed as the dean of our Faculty of Architecture, Prof. Hans Beunderman and prof. Karin Laglas were also appointed as professor of Real Estate Management and as such they joined the REM section as a guest.

We did our best to be complete, but there is always the risk of overlooking someone. Please accept our apologies if we missed some persons or if some dates are not completely right. The periods of being a staff member of the section are based on data from HRM.

We mention the period of joining the REM or UDM section. This is not always the same period of being a staff member of the TU Delft. Some staff members first worked elsewhere withing the faculty before joining the chair of Hans de Jonge.

The start of Building Informatics staff members joining the REM section is marked as 2012. In case of missing data we made the best possible estimate.

REM staff



Naif Alghamdi
November 2013 – now



Monique Arkesteijn
September 2003 - now



Peter Barendse
2012 - 2016



Salomé Bentinck
June 2011 - now

Ruud Binnekamp
2012 – now



Flavia Curvelo Magdaniel
January 2011 – now



Rein de Graaf
2012 – now



Hans de Jonge
July 1991 – Sept. 2016



Jackie de Vries
Nov. 2001 – Dec. 2008



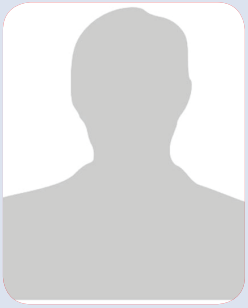
Alexandra den Heijer
September 1994 - now



Lidia de Puy
April 1998 – Sept. 2000



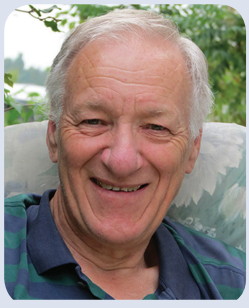
Geert Dewulf
1991 - 2000



Bibiana Guiza Caicedo
Feb. 2002 – Oct. 2003



Herman Vande Putte
January 2002 – now



Piet Guyt
1992 - 2002



Aart Hordijk
2007 - 2014



Pity Jongens Van der Schaaf
Nov. 1996 – Sept. 2003



Tuuli Jylhä
March 2016 - now



Willem Keeris
2004 – 2014



Philip Koppels
January 2005 - now



Peter Krumm
1996 - 1999



Tino Meuwsen
Aug. 1999 – Sept. 2006



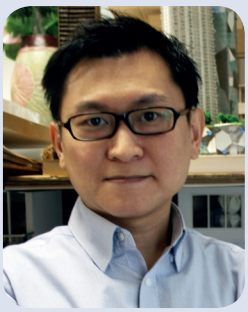
Ilir Nase
October 2014 - now



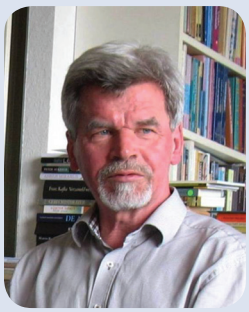
Gert-Joost Peek
May 1998 – May 2007



Hilde Remøy
July 2005 - now



Chaiwat Riratanaphong
Sept. 2008 – Dec. 2013



Jo Soeter
1991 – June 2013



George Tzovlas
Aug. 2014 – Jan. 2016



Theo van der Voordt
Sept. 1997 – Aug. 2015



Johan van der Zwart
Feb. 2008 – Dec. 2012



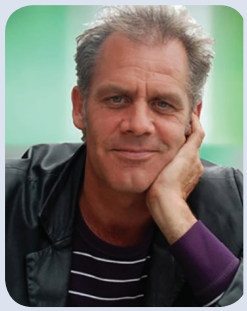
Peter Paul van Loon
2012 – Summer 2013



Juriaan van Meel
Nov. 1999 – Dec. 2005



Paul Vos
1996 - 1999



Maarten Wijk
1996 - 2001

UDM staff



Ineke Bruil
Nov. 1999- Jan. 2012



Yawei Chen
May 2001 – now



Tom Daamen
August 2003 - now



Friso de Zeeuw
August 2007 – now



Agnes Franzen
June 2006 – now



Erwin Heurkens
February 2008 - now

Helen Jager
September 2016 – now



Jesse Keenan
Aug. 2013 – April 2016



Dion Kooijman
January 2000 – now



Ariënne Mak
Aug. 2011 – Aug. 2015



Mirela Milošević
July 2014 - now



Danielle Niederer
October 2014 - now



Marlies Rosenbrand
May 2005 – April 2006



Ellen van Bueren
April 2015 - now



Wout van der Toorn Vrijthoff
1991 – July 2013



Jolai van der Vegt
Nov. 2007 – June 2012



Wouter Jan Verheul
April 2012 - now



Gerard Wigmans
May 2001 – 2014



Wilson Wong
April 2015 – June 2016

Supportive staff

In the past 25 years Hans de Jonge was supported by many other people, both his "own" secretaries working for the REM and UDM sections and the secretaries of the daily board of our department. We tried to collect all names and positioned them in alphabetical order.



Laura Bovelander

Angie Braun



Jennifer Dijkman



Rilana van der Gaag



Karin de Groot



Daniëlle Haring

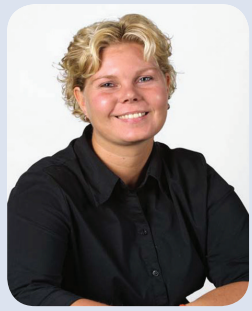
Y.K. Hooijkaas



Jildou Kleinsma



Marja Landzaad



Marjolein van Leeuwen

Anuschka Manohar-Baidjnath



Cecile Sillevis



Manja Stalman



Anne-Marie Weele-Speller

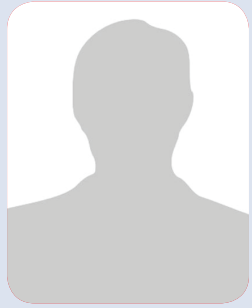


Jacqueline Wijland

Heads of the departmental secretary



Daniëlle Hoevers



Joke Nowee



Annette Stolze

Secretary of the daily board of the MBE department



Ada van Gulik



Jordi Kerkum



Mariska Roos

Communication advisors



Annie Breeuwsma
2011 – 2014



Claudia Wissekerke - Raaphorst 2001 - 2005



Groningen 1996



The Hague, 2011

TU Delft Delft University of Technology

This book presents a huge number of contributions on corporate and public real estate management, urban development management, design and construction management and housing. These topics correspond with the names of the four sections of the Department of Management in the Built Environment at the Faculty of Architecture and the Built Environment, TU Delft, the Netherlands. The book is a Liber Amicorum for prof. Hans de Jonge to mark his farewell as professor of real estate management and development. Due to the special role Hans de Jonge has had for over 25 years in our department the book includes many other contributions as well, from his former and current PhD candidates, university managers, and academic and professional colleagues from inside and outside the faculty. It offers a diversity of words of praise, personal memories, solid pieces of academic work, and reflections on the present, past and future of real estate management and development. As such the book presents a very interesting story of twenty five years of teaching and conducting research being started, guided and/or influenced by Hans de Jonge. It shows the contribution that Hans, his team and others have made to the growing body of knowledge on how to match the demand and supply of real estate and how to contribute to an efficient and effective building stock that evokes interesting experiences.