AMSTERDAM ACADEMY OF ARCHITECTURE ANNUAL NEWSPAPER

Academic Year
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EXAMINE EVERYTHING CAREFULLY

Scientific research is an important building block of spatial policy. This has always been the case, but the outbreak of Covid-19 and the subsequent 'intelligent lockdown' of the Netherlands on 15 March 2020 have once again made us acutely aware of this. Daily statistics presented on TV and in newspapers have led to spatial adjustments in shops, train stations and other public buildings. Cities are (as yet temporarily) converting entire roadways into pedestrian and cycling zones to make it possible for people to maintain social distancing in public space. In our own Academy Building, which has had limited opening hours since 6 May, safety protocols have led to suspended Plexiglas panels, the introduction of one-way traffic, various hygienic measures and more. It wasn't all fun and games, but it was necessary to facilitate the limited opening, which prioritized graduating students.

In the difficult weeks following mid-March, students, lecturers and staff showed an admirable decisiveness, flexibility and adaptability. In just a few days, almost all of the classes were moved to an online environment. Chance meetings in the canteen and impromptu lunches under the chestnut tree in the courtyard made way for well-organized video conferences through Teams – the enthusiasm and cheerfulness that so often characterizes our Academy now framed by the contours of computer screens. The fact that so many students, lecturers and staff gave it their all and made this academic year a success despite everything that happened makes me incredibly proud. As an educational community, we have learned a great deal about online education and although many of us are undoubtedly looking forward to the moment we can once again open our doors to everyone, we also want to make sure that the experiences we have gained do not go to waste. Markus Appenzeller has committed his thoughts on this subject to paper; you will find his contribution elsewhere in this newspaper.

The theme of this year's newspaper is research. Today's major social challenges, including circularity, sustainability, urbanization and the energy transition, have not suddenly disappeared. Indeed, the importance and urgency of these topics have only become more obvious in recent months. The attitude required of designers is inquisitive and innovative. This is why the Academy of Architecture intends to further stress the position of research in education. Research by design is an indispensable link in the search for answers to these challenges.

On 21 November 2019, the Academy of Architecture was subjected to an inspection. On behalf of the Association of Universities of Applied Sciences, an independent panel assessed the research carried out at the Academy. All three of our research groups were judged 'excellent': a clear indication that the Academy is on the right track with its research by design. Our annual newspaper highlights this research in various ways. Topical subjects are never far away: Dirk Sijmons, for example, advocates the anchoring of research by design in ethical awareness and Caroline Nevejan underlines the importance of transdisciplinary research to the solving of urban problems.

Right now, the long-term consequences Covid-19 will have on education and spatial design in the Netherlands are difficult to predict. Let's hope that 'the new normal', as many are calling the current situation, will later prove to have been a 'temporary normal'. Keeping one's near and dear ones at arm's length is not normal. I look forward to the moment when I will be able to welcome you all back to the Academy in person. In the meantime, let's examine everything carefully and hold fast to what is good.

Happy reading!

Madeleine Maaskant, Director

3

DATA STARING

The Smart City makes decisions on the basis of big data, but this is at odds with people's free will, social commitment and long-term perspective. Landscape architect Dirk Sijmons, professor emeritus at the TU Delft, advocates research by design that is based on moral awareness.

Text   DIRK SIJMONS

THE FIRST ROCK

Only those who have been living under a rock the past couple of decades can have failed to notice that the data revolution has had a profound impact on urban politics, urban planning and urban design. Surfing the waves of the digitization that has penetrated just about every nook and cranny of everyday life, an enormous amount of data on every conceivable aspect of the functioning of the city has become available. In scientific literature, the hope is expressed that we will be able – and it would be a first, they say – to find a truly scientific, empirical way of thinking about the city and urbanization. According to the most optimistic data-turn enthusiasts, datamining and pattern discovery open up new windows on reality that can make theory superfluous altogether.[1] Stating that design is also increasingly supported by digital tools would be stating the obvious, but here the active use of the data stream is increasing as well. Hopes are that evidence-based design will not only lead to green hospital environments, but also to hard evidence that well-designed environments generate measurable health effects.[2,3] This would allow the monetization of quality (a concept that continues to escape economists), give the discipline a higher status and make it subjectable to the Social Cost-Benefit Analysis that would quantify everything. Looking at engineering, it is clear that this discipline makes an essential contribution to the functioning of cities, lifts, roads and sewers. However, under the influence of the data turn it is rapidly developing into the kind of system engineering that would control the entire metabolism of the city. This is more than a small step beyond programming green waves for traffic lights. Governance, urban politics, has also fallen under the spell of big data's control options. Nowadays, the most diligent of policy officers are the digitally savvy ones who can juggle data the way their administrators like it. The new possibilities induce great euphoria. Self-learning algorithms and artificial intelligence accelerate their evolution. In an age in which everything has to be Smart, the Smart City is more or less the topper on a Christmas tree that is adorned with the hundreds of tiny LED lamps of the Internet of Things.

THE SECOND ROCK

But only those who have been living under another, even bigger rock cannot see that there is a drawback to this data turn. Just like the euphoria about the introduction of plastic, the first man-made material, turned into disillusionment and panic once the stuff turned out not to be biodegradable and started piling up into a suffocating environmental problem, the digital revolution also appears to have unexpected side effects.[4] The surging data streams soon yielded all kinds of revenue models that created the foundation for 'the new economy'. In addition to providing a completely new way of exchanging information in the global village, it turned out the very social media that had taken off so starry-eyed and carefree also made it possible to follow consumers and trace their preferences. This knowledge is literally invaluable. Today Apple, Google, Amazon, AliBaba and Facebook are among the largest companies in the world. The revenue model of these tech giants has landed the average user with a kind of infocalypse. We are flooded with a mountain of unedited information that is impossible to keep up with and an even greater amount of disinformation and background noise. The algorithms that track user preferences literally link like-minded people to each other, replacing the possibility of free exchange of information with an echo vault of self-righteousness. In addition to allowing contacts, these addictive social media create a continuous distraction that reduces people's ability to concentrate. Another side effect is that it fans people's fear of missing out (FOMO). On the horizons of scientists who believed that big data would offer a shortcut around social science's laborious theory formation processes looms disappointment rather than dystopia. Searching for patterns in gigantic datasets usually turns out to produce misleading or meaningless conclusions. If you are looking for a pattern or a deviation, you will always find one. As it turns out, big data are not a heal-all that allows the graceful side-stepping of sound scientific methods. Not in the case of urban research, nor in massive physics and medical studies.[5]

It is essential that the design community be vigilant about what this technology is doing to privacy and to the public space. The technology that launched apps to distort selfies to begin with has resulted in facial recognition technology. Coupled with the ever-expanding network of cameras meant to improve public security, it has imperceptibly led us towards a surveillance society in which governments can follow and condition their subjects. The next step in our increasingly liberalizing society is of course the privatization of this technology, for which there is a huge market. The powerful lobby of American security company G4S finds a sympathetic ear with the Dutch government party VVD especially.[6] Internet pioneer Marleen Stikker has been warning against developments of this kind for some time: 'We now see a number of dominant players base their business model on data extraction. By building up data sets and profiling and manipulating people, you deprive them of their autonomy. Our values are trampled underfoot by tech companies' yearn to earn. I'm offended by this continuous winner's rhetoric, which does not question the power, the risks and the dependencies involved.'[7] Stikker advocates an Internet in which collected data are regarded as a common: as communal property. We designers cannot continue to hide behind a kind of professional neutrality; we have to seriously ask ourselves questions about the role of this Smart City we embrace. All this involves serious money. ARUP has noted that worldwide, the market for Smart City spending – mainly the security section – has grown by 20 per cent per year in the last decade, to $750 billion in 2020. This is mainly due, incidentally, to huge investments made in China, South Korea, Japan, Singapore, Thailand, India and Australia.[8] It would be defeatist to continue to bemoan the fact that this box of Pandora may have been opened too wide. We need to reflect on ways to tame these technical developments and, where possible, point them towards a Smart City 2.0 in which the data collected are actually managed democratically and where co-creation involving citizens is integrated in the data revolution. Many regions organize Smart City hackathons. These are teeming with initiatives in which Citizen Science, the joint production of data in different areas, from transport movements to beekeeping, produces results for which regular science lacks the manpower and the budget.

But sorting out the chaos of the rampant data landscape we are plodding through would also be helpful.

ROCK THREE

At the risk of being mistaken for some kind of megalith builder, I would like to haul in a third rock. Not one you can live under, but one that's more like a stumbling block, a bone of contention, at least to me: the careless disregard of stratification in knowledge production. Let me use the recent events around Covid-19 as an example. First of all, it is clear that there is a plumbless depth between personal emotional tragedies – many more people have lost loved ones than during the 1953 flood disaster already – and the clinical epidemiological perspective needed to master this disaster. Every day, the media circus surrounding the corona crisis provides hallucinatory evidence of the way data, information, knowledge, science, semi-science, plans, exit strategies, the short and the long term, curative measures and preventive approaches tumble over each other. This begins with the daily data stare (a wonderful term coined by *De Correspondent*'s Sanne Blauw) during which the TV news informs us about the increase in numbers of deceased patients and ICU admissions.[9] Arranging these raw data on a timeline – allowing comparison with yesterday, the day before yesterday, last week and so on – enriches data into information. We can see whether the curve is flattening a little. Even more informative is the use of origins analyses to derive a time-spatial component from the data. With whom, when and where has the patient had contact? The specialists of the Outbreak Management Team pay particular attention to – and it is at this point that the data is transmuted into gold dust – the R0 factor that, however, rarely makes the news. The R0 factor indicates how many people a single infected person subsequently infects on average.[10] This number needs to be lower than 1 before the relaxing of measures can seriously be considered. Real knowledge only becomes available once fundamental research maps the behaviour of the coronic intruders. This kind of knowledge will eventually form the foundation for the development of a vaccine. The fact that information is not the same as knowledge is also indicated, although indirectly, by the various countries' rather divergent approaches. Apparently specific situations (demography, health-care capacity, political culture) are of major importance; otherwise every clear-headed administrator would make the same decisions about everything everywhere. Dutch politics seems to want to limit itself to the domains of data and information. Perhaps this is the most convenient thing to do in times of crisis management, observes Bert Wagendorp, wondering out loud about the Babel-like confusion of tongues that would arise if, in addition to virologists and microbiologists, the OMT would also include a couple of ethicists, economists and behavioural scientists.[11] It is of course a good thing that our politicians are influenced by specialists – let us pray for science in this day and age – but their attempts to develop an app have shown that there are limits to the datafication possibilities of politics. It all illustrates our modernist belief that digital technology will be able to answer all of our questions. Immediately, the associated privacy problems arose, even allowing for the best of tech intentions, among users that would only receive information – in combination with track & trace data – if they had been close to an infected person. 'For your own good' plus 'for the good of the community' warrants surrendering some of your privacy, doesn't it? *Loesje*'s comment was anxiously well-said: 'Good thing we don't have to sew that corona app on our coats.'

This example makes it clear that knowledge alone is not enough to outline an action perspective. There is a normative side to this, supported by politics. Politics is a specific domain with its own rationales for action and its own responsibilities. On the cutting edge – in the corona era – choices in this domain can be weighed down by heavy decisions involving trade-offs between saving lives and saving the economy that underpins social life. The role of politics becomes even more complex and independent when it tries to address the question of how to get our economy back on its feet. Should (or can!) this be a rebound-like full speed astern to the old situation in which we fly to Bali for €450, or do we seize the opportunity to essentially change and green society and make the corona crisis a turning point in history? Science can support our decision making, but it can't promise to chart the only right – scientific – course.

Politicians that have difficult considerations to make often sigh: 'What is the wise thing to do? And indeed, all the scientific knowledge and political insights of the world cannot guarantee wise decision making. That calls for some sort of meta-perspective. This is the domain of philosophy, ethics and ideology – disciplines that touch on politics, but are still autonomous domains of knowledge production, a fact that only the most hardened reductionists will deny. I would hope that we could look at our dealings with the Earth from this meta-perspective, from a non-anthropocentric point of view. Then we would see that after SARS, MERS, HIV, Q fever and Ebola, the Covid-19 pandemic is yet another piece of evidence that the number, frequency and cost of viruses jumping from non-humans to humans is increasing. The WHO links this clearly increased risk of zoonosis to changes in nature due to climate change, large-scale deforestation for palm oil and soy production, wet markets where wild animals are slaughtered and traded and also to intensive livestock farming and the quantities of antibiotics used in livestock farming, which make consumers resistant as well.[12]

As an extension of the OMT, I would like to argue in favour of a PMT, a Prevention Management Team that can make equally binding recommendations to the government. My PMT would extend a warm welcome to the ethicists, behavioural scientists and economists the OMT so skilfully managed to keep out. I would also like to add an ecologist to this Prevention Management Team, because it is clear that only a fairly radical departure from the non-committal approach to global nature conservation policy, combined with a rethink of our food supply, can reduce the risk of a next Covid-19 disaster. As the world's second-largest agricultural exporter, we can do what is necessary for the latter at the national level by phasing out industrial livestock production and scaling down the use of antibiotics. Internationally, too, our food industry (think Unilever) has a leading role to play, to which the PMT can contribute: stop cutting down rainforests, stop the reclamation of the Earth's last 'wastelands'. Via the Port of Rotterdam and Amsterdam Airport Schiphol, we can play an invaluable role in the strict prohibition and punishment of the poaching of and trade in exotic animal species

During the outbreak of Covid-19, Dam square was often deserted. This photo was taken on a late Friday afternoon, when it's usually very busy on the streets.

5

and animal remains for food and traditional medicine. Of course, this is only possible in the context of a different organization of the economy. Is this impossible and too expensive? Well, that depends on how you look at it. The IMF estimates the economic damage of the pandemic at €8,000 billion so far.[13] Doing nothing is more expensive, especially if Covid-19 turns out to be nothing but a dress rehearsal for the next outbreak. Once it is up and running, this Prevention Management Team will certainly be able to put the pandemic in the perspective of another, much more far-reaching, underlying suffering, namely the underlying suffering of the Earth due to the disruption of the climate by the emission of greenhouse gases. The Crowned Death may well fail to match up with the consequences of climate disruption. These are daydreams, of course; it would take an ingenious deep fake to make Mark Rutte give a speech about climate change that is as penetrating as the one he gave on the corona crisis.

SMART CITY REVISITED

I think I made my point with this corona parable. We of the design disciplines literally need to know our place. There are substantial differences between the domains of data, information, knowledge, politics and the wisdom of the long-term perspective. Each domain has its own rules of play. Of course we need facts in all these domains. The law of gravity applies in all of them, but as I have tried to illustrate above, their action rationalities are essentially different. Bruno Latour identified a gradient running from matters-of-fact (data, information) to matters-of-concern (involving the commitment that has to play a part in the political domain). Our design niche is on the side of commitment and engagement. On the side of free will, on the side of normative plans, on the side of the narrative. This is where we can make an essential contribution – through research by design, for example – to the debate about ways to organize the country in the post-corona era.

Finally, where does our discipline's fascination with the big data revolution come from? The fact that architecture and urbanism have always been eager to internalize the latest philosophical and scientific trends is too easy an explanation. The enthusiastic embrace of the data turn is perhaps a kind of phantom pain spasm caused by nostalgia for a time when spatial planning was at the heart of things. Or let's just say that it has something to do with our deep roots in modernism, with its built-in desire for control. Modernism is on its last legs. One of the characteristics of the Anthropocene is that we have definitively left the world of clearly defined problems that can be solved by unambiguous solutions behind us and exchanged it for a probabilistic perspective. The realization that we will continue to face wicked problems and uncertainties calls for an approach that utilizes and brings together all layers of knowledge production: everything from data, information, knowledge and politics to the wisdom of the meta-perspective. The message is clear: fixating on data is not the answer. We don't need Smart Cities, we need to be smart about cities.[14]

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What factors are increasing zoonosis emergence?
(Diseases transmitted from animals to humans)

HIV
MERS
SARS
Ebola
Q-koorts
COVID19

Deforestation and other land use changes

Illegal and poorly regulated wildlife trade

Intensified agriculture and livestock production

Antimicrobial resistance

Climate change

Source: UNEP Frontiers 2016 Report

#COVID19

UN environment programme

LIBRARY LOVE

Every search for the answer to a research question starts at the library.

Text   KLAAS DE JONG, MATTY GAIKHORST
Photo   JONATHAN ANDREW

The library lies at the heart of the Academy of Architecture school building. It is the best place for it on the premises. The library is the discipline's memory. Students and lecturers come here to access the accumulated knowledge of the generations of spatial designers and researchers that came before them.

Libraries are key to research. Every scientific text builds on what has been addressed in earlier research, by complementing, supporting, nuancing, challenging or summarizing existing knowledge and insights.

What does the academy library have to offer? First, there is the physical collection of books, maps, DVDs and periodicals, all of them on architecture, urbanism and landscape architecture. The antiquarian collection, which covers the period from 1880 to 1945, provides historical depth. The library's acquisition policy is aimed at dovetailing with current educational and professional developments. The collection consists of quality pieces of information produced in the field of spatial design disciplines.

Books will never lose their value as information carriers. The rustle of crisp paper, the mild, sweet smell of printing ink and the tactility of spines and covers are simply too appealing. Hold me and read me, whispers the book. But there is more. Beyond the world of paper lies the domain of digital information. The Amsterdam University of the Arts opens up this world, too, with the Academy library in the vanguard.

Via CatalogusPlus, located on the MyAHK library page, students and lecturers can use dozens of databases that provide access to many millions of articles. By this system, we have a world of information at our fingertips.

A simple, unambiguous search form allows students and lecturers to search both the library catalogue and the databases. A toolset is available to narrow down the results and to find increasingly specific search questions. To indicate the size of this *mer à boir*: a simple search using the term 'Koolhaas' yields more than 2,000 full-text articles. This number can be pared down by searching by project or theme. CatalogusPlus also includes dozens of architecture magazines, from the *AA Files* and *Architectural Design* and *JoLA* to *Werk, Bauen + Wohnen*.

CatalogusPlus is the essential tool of every researcher – lecturer, designer or student.

7

'THE CITY IS TRANSDIS-CIPLINARY'

The Academy of Architecture is one of the Amsterdam-based knowledge institutes that contribute to openresearch.amsterdam, a database of research relevant to the city that was initiated by Caroline Nevejan. She talks about the setup and purpose of this initiative.

Text   DAVID KEUNING

The festive launch of openresearch.amsterdam was meant to take place in Paradiso on the evening of Tuesday, 21 April 2020. It's a website on which Amsterdam-based knowledge institutions, including the Academy of Architecture, can publish research that is relevant to the Dutch capital. During the conference researchers, officials and designers were supposed to discuss the question of how Amsterdam locals will live together in the future. Although the event was cancelled – like most other meetings planned in this period – the website has been open to visitors since.

Its initiator is Caroline Nevejan, Chief Science Officer of the City of Amsterdam and professor of Designing Urban Experience at the University of Amsterdam. On a sunny, weekday afternoon a few weeks after the cancellation of the event, in an abandoned city, sitting on the stairs in front of a closed café, she talks about what statistics mean to urban design, about big data and about the importance of interdisciplinary research.

DAVID KEUNING   What precisely does the Chief Science Officer of the city of Amsterdam do?

CAROLINE NEVEJAN   'I create synergy between urban issues relevant to the city and the universities. It's a position that didn't exist before I was appointed. An incredible amount of research is done in this city. Students and schoolchildren make up a quarter of the population of Amsterdam. Following the municipality, universities and colleges are the city's largest employers and they carry out internationally important work. Their research is often relevant to the city. Many of the collaborations between the city government and science are based on personal contacts. In order to steer this in a better direction, the Board of Mayor and Aldermen and the Executive Boards of the knowledge institutes decided to build a sustainable knowledge infrastructure: openresearch.amsterdam. There are now 17 academic workshops in which scientists and policymakers work together on a structural basis.'

DK   Where do the workshops take place?
CN   'The city hosts most, but not all of them. Once a month or once every two months policy officials and researchers meet. Presentations of work or research are followed by joint reflection. These meetings form a *mer à boire*, that is, if you bring the right people together.'

DK   Can you give an example?
CN   'We recently launched an academic workshop on the subject of food. In another, research is conducted in the field of urban ecology. It's an old concept, from the 1970s. Originally, the workshops were mainly about public health. The Sarphati Institute, which was established as a result of these, is conducting a long-term study that is monitoring a cohort of children for 30 years. Quite a few of the workshops still take place at the GGD (municipal health services). These focus on subjects ranging from loneliness to obesity. Another success story is the 'oval' table on mobility, a project in which the VU Amsterdam, the University of Amsterdam, the Amsterdam University of Applied Sciences and the city have been working together for a couple of years now and that includes the evaluation of the North-South metro line.

The processes of scientific research are completely different than, for example, the policy trajectories of the city. The questions, the methods, the time frames: everything is different.'

DK   How do you bring these different worlds together?
CN   'The interesting thing is: once they've agreed on the content, people start to see the similarities. That's why the workshops are so interesting, because they give people time to get to know each other's processes. Which makes it easier to work together. The rat problem in Amsterdam-Oost, for example, is being investigated by the Institute for Biodiversity and Ecosystem Dynamics of the University of Amsterdam.

DK   How are parties brought together? Do you do that personally?
CN   'Some of the collaborations already existed. Sometimes people meet at a European project or when they apply for an NWO (Dutch Research Council) grant. Other collaborations have been initiated by me. I orchestrated Urban Ecology and Food, for example.'

DK   Have you also succeeded in rousing the interest of the officials of the City of Amsterdam? Officials are often specialists themselves.
CN   'That's why they find it especially interesting to work together. For example, an official who knows everything about traffic in Amsterdam can find it very stimulating to work with a scientist who makes traffic flow simulations. That's why it's so important that the right people get together. Attuning them, that's the tricky bit. I for my part constantly introduce people to each other. I make sure that the collaborations are less dependent on individuals. They always will be to a certain extent, because good research stems from personal interest. We're not running a biscuit factory. But the nice thing is that we're building structures that can continue to exist, even after certain individuals leave.

The University of Amsterdam's Institute for Information Law, for example, now structurally collaborates with the city's information technologists, because innovations in the field of ICT have to lead to changes in the law. That's very good for the institute because it gets access to data it wouldn't otherwise have access to, and it's good for city officials because they get access to methods they wouldn't otherwise have access to.'

DK   Have you come up with an instrument to measure the productivity of your work?
CN   'Not yet. I'm talking about that. I'm a kind of scientific oiler of wheels. I'm oiling wheels all over the place. I haven't made my own business case yet. I'd love to do that one day.'

DK   Can you?
CN   'Yes, I think so. The openreseach.amsterdam website that just got launched has analytics, so we can see what's going on there. We have over a hundred editors and 1,600 participants. Over 3,000 papers have already been posted. The first day, we had a thousand page views. That was unexpected. I was totally surprised.'

DK   But no party.
CN   'Yes, we opened in silence, without telling anyone. The workshops also provide all kinds of new insights. We apply for European subsidies a lot, the city has a separate office for this. That's quite successful. Part of it is cultural programming. I've also started a new scheme that allows four municipal officials to start pursuing a doctoral degree every year. Their employer gives them two days a week to do this. Eight of them are now working on their PhD and another four will start very soon.'

DK   What is their research about?
CN   'A wide variety of subjects. In the coming fall, we're going to make what they're doing more visible. I'm building something from nothing here. There was hardly any infrastructure. I'm building now, and I'll get to measuring later.'

DK   What do you want to achieve with openresearch. amsterdam?
CN   'I want people to work together on the same subjects, to be able to find each other. I think it's important that expert knowledge ends up with policymakers and other interested parties in the city. If you want to know which energy transition studies take place in Amsterdam, for example, you can visit this website. Someone who works on electric charging stations can see at a glance who else is working on the same subject.'

DK   Don't they know about each other?
CN   'No, sometimes even people who work at the same faculty don't know about each other. Everyone thinks everybody knows everybody, but they don't. People mostly focus on their own field. Some are applied, some are fundamental. Some are scientific, some are design-based. Generally speaking, there are no direct connections between the different fields. Look at the energy transition: it has all of those four layers. How do we make batteries that can store a lot of energy and take up little space at the same time? Inside the dwelling, where do we put them? Those batteries come with new monitoring systems. We need new business models to balance the payment of the energy supplied to the user. But we are also going to cook in a different way and tell stories in a different way. The energy transition touches on all of those areas. Every social challenge is integrated and transdisciplinary. This complexity is part of every task. I hope that openresearch.amsterdam will make its users a little more aware of this.

It's been complicated to pull it all off. The city is organized in pillars and so is science. Architecture is a discipline that is naturally accustomed to collaborating with other disciplines, but architects nevertheless hardly make use of the social sciences – my personal background – at all. Subjects such as politics and urban power relations, speculation and gentrification have a huge effect on the city, but students learn very little about these subjects, at least in Delft, where I worked for seven years as an associate professor. Students are told about them, but never learn to deal with them differently.'

DK   You can't specialize in everything. Architecture and urbanism are disciplines in their own right.
CN   'That's right, but the city is transdisciplinary. Orchestrated collaboration between the various disciplines can make or break a successful city. This applies to all challenges. In the courses, students ought to learn to join forces with other disciplines more often. In Delft I worked on a sustainability notation. Students of all disciplines can earn that notation on their diploma. I met students from all faculties. It turned out that students are often brilliant in their own fields, but never learn to collaborate with students from other courses, not even in Delft. If you bring a Delft engineer, someone from Leiden University and a business school student together, they can exchange ideas. What kind of questions do you ask? What kind of questions do I ask? How does my knowledge compare to yours? At what point is exchange important?

Richard Sennett described the importance of this excellently in his book *Building and Dwelling: Ethics for the City.* He distinguishes between *la cité* en *la ville*. *La cité* is the urban, the culture, the bustle. *La ville* is the infrastructure. Sennett argues that architects and urbanists try to design *la cité* through *la ville*. But they do this without making an effort to really understand *la cité*, for example through the social and cultural sciences. In this day and age, with the need for circularity and the coming climate crises, we *must* do better. There is no alternative.'

DK   What do you think is the part of big data in urban design?
CN   'Collecting data is a way of gathering knowledge about a certain situation. Just like all other ways of doing this, you have to be very careful that you do it with integrity and correctly and consistently.'

DK   With respect to the way the data are created, or with respect to the way the data are used?
CN   'Both. You can use data to prove anything you like. Really anything. You can use data to prove that the sky is green, if you want to. That's why epistemology is a separate subject. Validity, falsifiability, verifiability, integrity and significance: all those things have to be *just so*. There is relatively little attention for this. Many people talk about data that don't work with data. Finding a good proxy and a good dataset on the right scale, assessing the combination of the datasets, the importance of privacy: these are all major new subjects.'

DK   And when all of this is *just so*, you still have to be able to interpret the data.
CN   'Exactly. Data can only be read using visualizations. I have a colleague who can read very long rows of data. She doesn't need visualizations. But most mortals do. But a visualization is also an interpretation. It can be questioned.

Again, you see that interdisciplinarity is very important. With my research group, for example, I've conducted research into waste in Amsterdam-Zuidoost on the basis of reports from the public space as well as ethnographic and spatial research. The most significance is found where the data and the physical world are combined. One explanation, for example, turned 180 degrees thanks to the ethnographic research we'd also conducted. Most of the reports about waste in a certain area turned out to come from a clean building, rather than from one that was dirty.'

DK   Because the people living in the clean building are more demanding on the subject?
CN   'And they see the dirty building. The people in the dirty building see the clean building. So some things turn out to be exactly the other way around than you would assume on the basis of just the data. Data alone is nothing. It's air. It's a way of representing reality and in that respect it is very interesting to me as a researcher. It makes me very happy. But I always work interdisciplinary.'

DK   There's no morality in data, either.
CN   'But there is! It's just that you have to uncover it. If, for example, I was to tell you that I'm going to measure how many people in Amsterdam are wearing Nike shoes – it's just an example, I saw someone wearing those shoes walk by just now – that would betray a perspective, with underlying values.'

DK   It all starts with the question.
CN   Yes, and with the dataset you choose, the scale of your research, the type of algorithm you apply, the context in which you validate the results, the falsification you allow. Lots of people don't do all that. You can see that happening to corona today. Politicians and the media want bite-sized announcements. It's a difficult subject, there's no denying that. This morning I read an interview with the great Belgian modeller Niel Hens. There's something frustrating about his work. He makes very precise, subtle models, but nobody is interested. People want to hear: it's true or it isn't. But science produces progressive insights.'

DK   The average newspaper article is too short to properly reflect all the nuances. The same goes for a news item on television. So what can you do?
CN   'You can become smart and design your communications properly. Saying: "Okay, so we're all going to lie" simply doesn't cut it. We need to think about this. It *has* to be possible. It's very important to all of us to stay up to date.'

DK   You are also an extraordinary professor of Designing Urban Experience at the University of Amsterdam. What are you studying there?
CN   'I'm conducting an NWO-financed study into rhythm in the city, among other things. We're looking at the way rhythm can increase social security. It's about the rhythm of activities and infrastructures in space and time and it's yielding some interesting information. People – and nature in general – are rhythm-based. If you look at urban issues from the perspective of rhythm, you suddenly see other solutions. That works very well.'

DK   Can you give an example?
CN   'A few years ago we carried out research on single mothers in Amsterdam-Zuidoost who do not use the services available to them. This involves millions worth of unused facilities. It turned out that the mothers were unable to visit at all during the hours the services were offered. The way in which the services were offered didn't match the daily routine of single mothers with small children. As a result of our research, a number of things changed. There were *buurtkamers* (small community centres) in the area where children could play and these were popular. So we advised the city to not make individual arrangements for small groups of people, but to support the community centres. Because that's where single mothers do go.

The goal of Designing Urban Experience is to design the city in such a way that people have action perspectives. This means that people themselves can influence their surroundings and that they don't have to walk around the city like shadows just to consume and spend money. I believe that people need perspectives for action, because this also allows them to take responsibility.'

DK   I have one last question about openresearch. amsterdam. It's an excellent website and I underline its importance. But it's basically a simple CMS. There is no link to the repository service SurfSharekit, from where data can be uploaded to other knowledge bases. There is no link to ResearchGate, where most researchers post their papers, either. How do you prevent people from having to do everything twice?
CN   'We'll be working on the link with SurfSharekit in the near future. And yes, at the moment it does take quite some time to upload all of the existing research. But once it's up there, all we have to do is keep it up to date. If you take the time to check out new research once a month, it will be up there in an hour. Do please write that in your article, it's really important!'

MEET AND GREET

The Amsterdam Academy of Architecture's three research networks conduct design research on themes closely related to social issues including sustainability, urbanization and the energy transition. What exactly are the research questions? The research networks introduce themselves.

RESEARCH GROUP ARCHITECTURE
Architecture & Circular Thinking
2019 – 2023

Lecturer   Peter van Assche
Researcher Gerjan Streng

The linear economy of our society is changing into a circular economy. Linear economies use raw materials and write them off as waste at the end of their useful lives. The irresponsible risk of this model has become clear to the general public only relatively recently. We now know our earth is not an inexhaustible source of fuel and raw materials and that its ecosystems can only bounce back from human intervention to a limited extent. In a circular economy there is no such thing as waste; raw materials are used over and over again. Energy and material cycles are closed to ensure any damage to the Earth's ecosystem remains limited.

More than half of the waste our civilization produces is waste from constructional and infrastructural interventions. In the construction sector, the transition to a circular economy must come with a fundamental transformation right across the width of the field: from design to completion.

The Research Network Architecture & Circular Thinking investigates the architectural possibilities of a new material paradigm in the broadest sense. It focuses on architectural implications rather than on research into new or existing materials. As a result, the Research Network is documenting a new architectural repertoire for a circular economy in pictures and text. This repertoire is created by linking a circular strategy to a series of tasks (exemplary or otherwise). The development of this repertoire is linked to three themes.

The theme Material and Process examines the proposition that a new dialogue with material can result in new construction principles and new aesthetics. Using materials adaptively or dynamically (supply-oriented design) creates new roles for architects to fill and opportunities for new (architectural) basic principles to develop. What will find its way into architecture's new toolbox?

The theme Circular Building as a New Paradigm is based on the premise that the 'New Building' of the circular economy will necessarily lead to a different architecture. What will the typological and aesthetic vocabulary of such a new architecture look like?

The theme Social Challenges examines whether circular design can meet existing social challenges, not only in the context of the climate agenda, but also and above all in that of directly perceptible tasks. Greening the urban environment, building inclusive housing in the city, providing housing and care and making the existing building stock more sustainable: Does circular thinking in the new economy offer solutions that classical design under existing economic laws cannot offer?

RESEARCH GROUP URBAN DESIGN
Future Urban Regions
2013 – 2020

Lecturer   Eric Frijters
Researchers David Hooghe, Catja Edens, Willemijn Lofvers, Matthijs Ponte, Thijs van Spaandonk, Christopher de Vries and Jet van Zwieten

Cities are growing and will continue to do so. Urbanization is increasing worldwide: expectations are that by 2050 almost 70 per cent of the world population will live in cities. On the basis of this awareness the Research Group Future Urban Regions (FUR) focuses on the design challenges that these growing urban ecosystems entail. The Research Group is looking for innovative methods and techniques to create a healthy urban environment. FUR distinguishes six major themes in the field of urbanization: healthy living, vital economy, renewable energy, material cycle, resilient infrastructure and sociocultural connectivity.

The research focuses on the level of the region, the city and the street respectively and takes place in coalitions of citizens, businesses and governments. In this context the Future Urban Regions Research Group distinguishes four research trajectories that each use their own research method. Narrative research uses journalistic and narrative techniques to map and describe design challenges. This not only yields knowledge, but also products that are easy to share with a wide audience. Comparative desk research examines and analyses national and international design issues. Studio research focuses on the examining of design assignments through studio training at the Academies of Architecture. In practical research, FUR looks for new design problems and the way in which their solutions can be implemented regionally.

This Research Group focuses on test site Zeeland in the 2017-2020 period, investigating five concrete subjects against the background of the abovementioned themes. These are Quality Communities (research into the possibility of sharing holiday park facilities with nearby villages, where many facilities have disappeared), Postfossil Port Complex (into the transformation of industries that process fossil resources into industries that generate new forms of energy), Mining Landscapes (into the design of productive landscapes for sustainable food supply), Offshore Wind Landscapes (into the possibility of densifying existing wind farms at sea, combined with the production of solar energy, hydrogen, food or biomass) and Embedded Barracks (into the planned establishment of a naval barracks in Zeeland and the consequences of this to the province).

This Research Group is a collaboration of the six Dutch Academies of Architecture in Amsterdam, Arnhem, Groningen, Maastricht, Rotterdam and Tilburg. Formally, this Research Group does not come under the Amsterdam Academy or the Amsterdam University of the Arts, but under the Landelijk Overleg Bouwkunst Onderwijs LOBO, the consultative body of the joint academies; therefore it is accountable to the Ministry of Infrastructure and Water Management. The Amsterdam Academy chairs the Research Group.

RESEARCH GROUP LANDSCAPE ARCHITECTURE
High-Density Energy Landscapes
2017 – 2021

Lecturer   Sven Stremke
Researcher Dirk Oudes
Postdoc   Paolo Picchi

The energy transition presents an urgent social problem. It is evident that an attempt to stabilize the global climate is necessary and that a solution can be found in the measure to reduce the global use of fossil fuels, among other things. The Paris Climate Agreement of 2016 includes the arrangement that global warming must be limited to 1.5 degrees Celsius. This can be achieved by significantly reducing the use of fossil fuels, storing CO_2 and limiting CO_2 emissions in peatlands. Research into the possibilities and opportunities of the energy transition has been launched at various locations, but what will the energy transition mean to the city and the countryside? What will the energy transition actually be like? What innovative imagery can we generate to represent it? What can designers do to meet this challenge? The latter question is not addressed in current discussions, while conceptualizing and visualizing such images for the future is what any Academy of Architecture does best. In addition, the Academies of Architecture consider it very important that the current generation of students becomes aware of the urgency of the subject of energy transition.

A PhD researcher whose research concerns the design of energy landscapes is attached to this Research Group. In the Netherlands, the share of renewable energy was just 7 per cent in 2017. In order to significantly up this percentage it is necessary to not only go all out for the small-scale, incidental generation of renewable energy, but to also focus on a form of renewable energy generation that takes up more space and will result in a considerable transformation of parts of the Dutch countryside. In densely populated areas this will lead to changes in the functioning of the countryside as well as in the cultural connotations associated with it. It is therefore important to develop sustainability criteria that make it possible to evaluate potential landscape transformations and identify possible synergies and trades-offs of interests. The research aims to develop a framework for designers in the field as well as students that can be used for research into alternative futures for energy landscapes, using sustainability criteria.

In addition, a postdoc is attached to this Research Group. He is responsible for the implementation of the Metropolitan Energy Transition and Spatial Planning (METRO) partnership. This multiyear collaborative project with the City of Amsterdam comprises both education and research. In terms of education, the Research Group trains employees of the Department of Spatial Planning and Sustainability in the field of sustainable energy transition in the context of Lifelong Learning. The training includes lectures, workshops and master classes. The tasks addressed are focused on Amsterdam. Through research, METRO also aims to answer the city's concrete questions about renewable energy. The subjects of the research are linked to both the master classes and the various forms of education provided by the three Master's programmes at the Academy of Architecture.


11

QUEST FOR A NEW ARCHITECTURAL REPERTOIRE

In 2019, the Amsterdam Academy of Architecture appointed Peter van Assche as lector Architecture & Circular Thinking. He presented his inaugural speech at Pakhuis de Zwijger on 12 December 2019.

Text   MARIEKE BERKERS

Jeroen van der Wielen

SLA and Overtreders W built The People's Pavilion completely from borrowed materials. After nine days of use, all materials were returned to the owners in one piece and undamaged.

RESEARCH

12
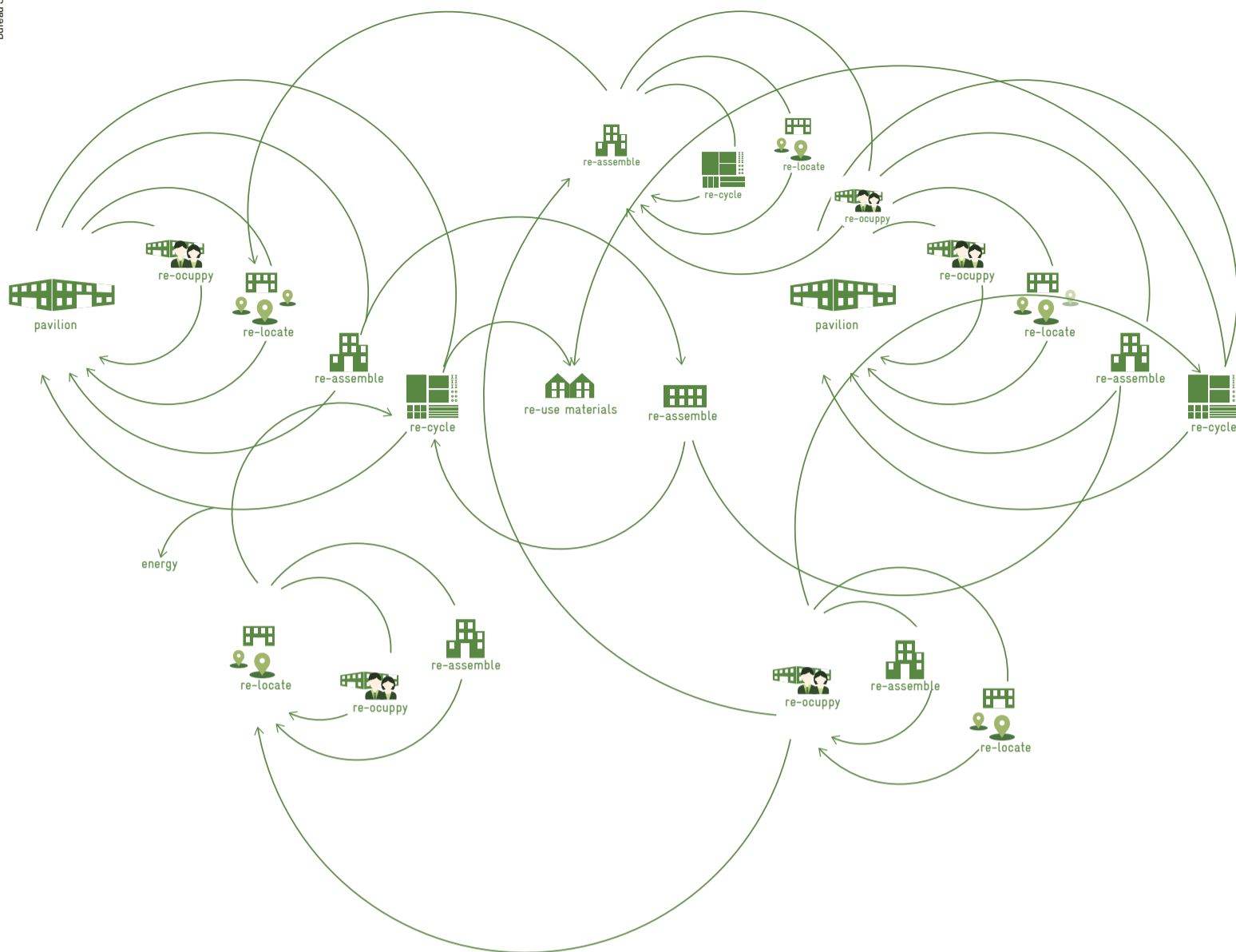
The lifespan of materials in a circular economy consists of a fascinating interaction between material, humankind and use in the case of building materials.

Anyone who thinks that the research group Architecture & Circular Thinking fully focuses on complex, circular schematics is in for a surprise as far as Peter van Assche is concerned. Rather than by explaining the complex diagrams circularity is known for, the brand-new lecturer opened his inaugural speech at a sold-out Pakhuis de Zwijger by showing a beautiful picture taken from Jonathan Swift's classic novel *Gulliver's Travels*. Hardly the logical place to launch an architectural research network, one would think. But on this occasion, as it turns out, logic is mainly a cage to rattle.

The drawings from the book show the protagonist, Lemuel Gulliver. He finds himself in the land of the so-called Lilliputians who, apparently, have been arguing 'for 36 moons' about the question on which side one ought to break an egg. The hero just cannot understand this. Why start a war over such a silly matter?! As he continues his journey Lemuel goes from one surprise to the next. This is due to the great differences in morality between the society he knows – eighteenth-century England – and the one he is visiting. In the end he concludes that every culture has its own social logic, however nonsensical this may seem to outsiders.

DOOM SCENARIO

Van Assche's inaugural speech takes a critical look at the logic on which we base the organization of our society. The matter is topical. After all, our way of living generates a picture of the future that reads like a doomsday scenario – at least for human beings. Our treatment of the planet and its wealth of raw materials is hardly sustainable. If we continue in the same vein, raw materials will be exhausted and the earth extremely polluted before long. If we want to live in a world that is healthy and pleasant, we will have to change our behaviour radically. This requires a different way of thinking. To make the need for this evident, we first need to critically question our current behaviour. Van Assche has prepared a large number of these questions.

SINGLE USE

How logical is the way we use materials, for example? Why do we drink soda from a metal can, only to throw it in a rubbish bin afterwards? A lot of effort goes into making cans. Our brief use of them is disproportionate to the effort and attention devoted to the making of the object. Or take, for example, the mountain of waste produced by the activity of building, the profession to which architecture is so closely related. Why do we continue to make new designs if we know that an important side effect is an ever-growing mountain of waste? Reflecting on our habits, they often look as strange as those of the eccentric peoples Gulliver visits.

DAILY ROUTINES

The fact that the word 'circular' is not yet commonplace in our society was evident from the reactions to the speech. The non-architects in the audience had expected the brand-new lecturer to present some professional and technical talk. Something about something complicated: circularity. It turned out differently: the speech was not complex at all! On the contrary, circular thinking invites us to rethink very ordinary daily routines. Why are we so accustomed to throwing away products, only to buy them again on the cheap, whether it is cans or buildings? All questions surrounding circularity are closely connected to elementary questions such as: How do I treat the planet I live on? What objects do I use? What is of value to me and why? And how new is this circular thinking, really? Before the Industrial Revolution, it was quite customary. After all, circular thinking is better suited to the logic underlying the ecological systems of the planet Earth of which we are part.

ARCHITECTURE & CIRCULAR THINKING

We are prone to believe that the logic we ourselves created is static. But logic is not static at all! Van Assche is used to that idea by now. Constantly questioning the logic behind things comes naturally to him – a remnant of his earlier career in experimental mathematics. In mathematics, logic is always different, depending on the paradigms one sets. It is a way of thinking that is not necessarily common practice in architecture and building. However, it is very promising at a time when we are questioning our behaviour towards the planet. Anyone who wants a circular economy, a world in which raw materials, parts and products retain their value, must therefore begin by thinking up a new logic. This made Van Assche decide to change the original name of the research group, Architecture & Circular Economics, into Architecture & Circular Thinking.

PIONEERING

Questioning existing logic requires an experimental attitude, which is exactly what Van Assche's architecture practice and his work as director of SLA show. When the office, together with designers Overtreders W, designed a sustainable slate as a façade material, which they wanted to display the quality of the waste from which it was made, manufacturers turned them down. The industry focuses on making many and especially exactly the same products quickly. Solution? Build your own factory. This allowed the designers to show how beautiful and meaningful the material is. As a result, a Belgian manufacturer took on the challenge to take the slate into production. This pioneering mentality calls for creativity. Especially at a school like the Academy of Architecture, there is plenty of opportunity to stimulate students' creativity. The making, building and testing of inventions is therefore to be part of the programme Van Assche will further develop for the academy. 'The projects of designers often anticipate tipping points in our moral consciousness. They show that social logic is not static,' says Van Assche.

NEW ARCHITECTURAL REPERTOIRE

Over the next four years, Van Assche's research network will explore the architectural possibilities of a new material paradigm in a broad sense. He will not be alone; he is undertaking this adventure together with research fellow Gerjan Streng. Streng is architect and founder of Bright, a laboratory for design research that works on the spatial implementation of social transitions. They make a strong duo, together with students and a growing network of experts, researchers and makers, to identify and test a new architectural repertoire for a circular society in the coming years.
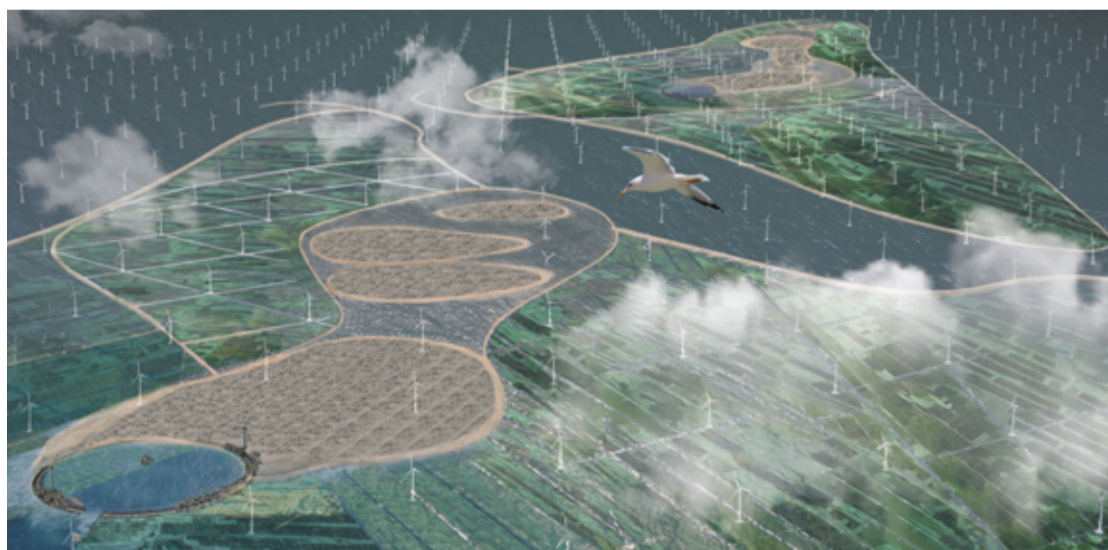
13

TESTING TOOLS FOR RESEARCH BY DESIGN

The FUR lectorate is working on its second book, due to be published in 2021. Sixteen design studios that led to 150 projects contributed to the research that's going into the book.

Text   THIJS VAN SPAANDONK

Mark Vergeer, Space for Growth.

Anne Floor Timan, Taste the Wind Farm.

Research group Future Urban Regions (FUR) is working on the sequel of the book *Urban Challenges, Resilient Solutions*, published in October 2017. The studio work of the Academy students was an important source for the research that's going into the preparation of the book. That's why studio simulation is one of FUR's three pillars. In the first phase of FUR I (2013 – 2016), the Academy studios in Groningen, Arnhem, Rotterdam, Tilburg, Maastricht and of course Amsterdam were used to explore what precisely research by design entails. The studios resulted in the development of new typologies that deal with the six urban challenges defined by FUR, testing different research by design methods and investigating the actors and stakeholders that need to be addressed.

FUR II continued to use the studios as part of the research. The six Academies of Architecture programmed as many as 16 different studios, tutored by around 40 lecturers resulting in 150 projects. The joint effort by the Academies of Amsterdam, Rotterdam and Groningen to explore the future of Zeeland roughly accounts for half of all of the studios and projects.

The Zeeland studios explored the transition towards a post-fossil future of the harbour of Terneuzen (Raoul Correa and Saline Verhoeven, Amsterdam), the integration of offshore wind parks with other uses (Marieke Timmermans, Amsterdam), the landscape transformation of the Walcheren peninsula (Huub Juurlink and Roel van Gerwen, Amsterdam), the spatial synergy between temporary and permanent residents of Zeeland (Alexander Herrebout and Tim Devos, Rotterdam), new health-care typologies (Femke Feenstra and Andrea Mohn, Rotterdam) and the regional embedding of the marine corps base (Ifigenia Psarra and Jan Willem Petersen, Groningen). For sure, the highlights of these studios were the joint field trip and the communication master class in Zeeland.

Other studios designed new food typologies (Arnhem), worked with residents on increasing the sustainability of the monumental Peperklip building (Rotterdam), explored the transformation of vacant farms for regional economy and ecology (Tilburg) and reimagined the Euregion (Maastricht).

Besides the designs themselves, another result was the tools for research by design tested in the studios. Especially the conversation models like the Parliament of Things and the Socratic Conversation turned out to be very fruitful to reflect on research and design. Altogether, the body of work produced by the students map the full spectrum of research by design. It touched topics and developed views that we would never have touched ourselves. Our job now is to translate the richness of all this work into a publication.

Where the first FUR book tried to define the basic elements of research by design, the upcoming book, due in 2021, is about exploring the outer boundaries of our profession. What are the challenges, methods, futures, actors, cultures and values that map the periphery of our profession? The 150 student projects show the first hints of what can be expected.

Jelle Engelchor, Walcheren Fresh Water Ring.
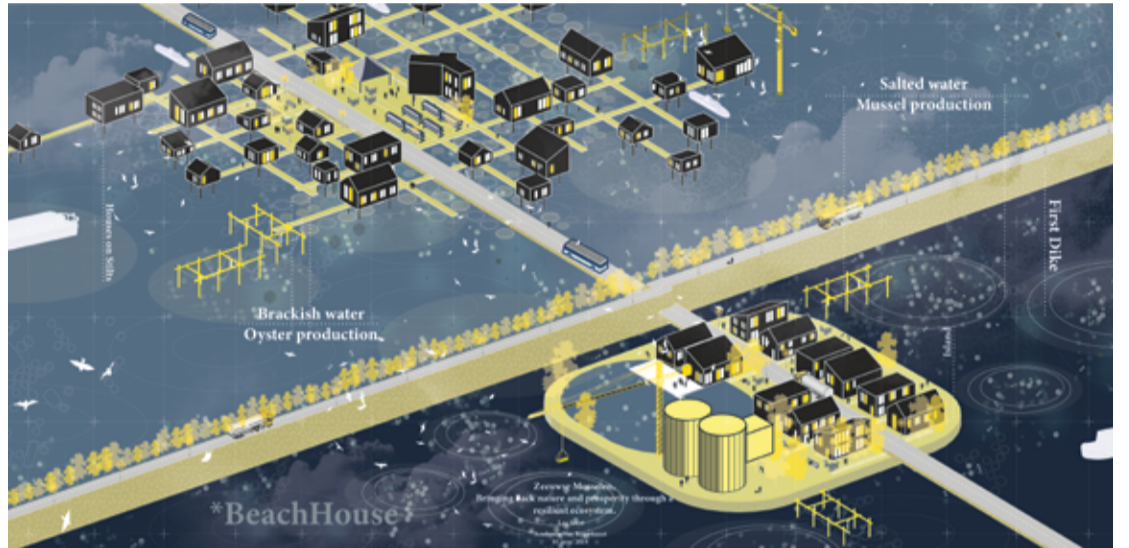
Léa Soret, The Matrix.

Inga Zielonka, Blue Energy Forest.

Left-over spaces used for ecological enhancements at Solarfeld Gansdorf (Bavaria, Germany).

LANDSCAPE, PARK OR GARDEN?

Dirk Oudes and Sven Stremke discuss how landscape architecture researchers and designers can contribute to the understanding and implementation of solar fields.

Text   DIRK OUDES AND SVEN STREMKE
Photos/images DIRK OUDES

Insect hotel at Verwood solar farm (Dorset, United Kingdom).

'Connotation: the suggesting of a meaning by a word apart from the thing it explicitly names or describes' – *Merriam Webster*

As the above definition suggests, connotation refers to the 'colour' or 'charge' of a word. Connotation is the opposite of denotation, which refers to the exact meaning of a word. In our field, participation, for example, formally refers to – it denotes – the taking part of stakeholders in a design process. The meaning of the word, however – its connotation – will vary greatly according to whom you ask. For some it refers to a genuine collaboration with stakeholders, while others immediately think of a dreadful and weary process that decreases the quality of the design.

In this essay, we will argue that in the case of solar fields, too, there is a variety of associated meanings, of connotations. More importantly, we will show how both landscape architecture researchers as well as designers can contribute to the understanding and implementation of solar fields.

Solar fields are a relatively new phenomenon in the Netherlands. They are basically a large collection of photovoltaic (PV) panels often constructed on agricultural or derelict land. Together with wind turbines, heat networks, hydropower plants and energy saving interventions in buildings, they support a transition from fossil fuels to renewable energy.

As its urban counterpart, building-integrated PV (BiPV) are a rather straightforward application of PV panels on rooftops or in the façades of buildings. However, PV panels in landscapes are framed in many different ways, expressed by a variety of suffixes following 'solar': solar farm, solar park, solar meadow and, more recently, solar garden and solar landscape. Farm, garden or landscape: all terms refer to a concept previously not linked to power-generating systems. Especially terms like park and garden seem to refer to something that is carefully conceived, or designed, while this is certainly not always the case for solar fields. The purpose of this framing is to transfer the existing connotations of garden and park to a solar field.

Positively explained, using terms such as garden, park and landscape express the wish to incorporate renewable energy landscapes in our living environment, as opposed to fossil powerplants pushed to the most remote and desolate parts of our countries. A more critical stance would be that without a proper denotation, these terms can be used in any situation concerning a solar field, independent of the design and the actual physical landscape. As a consequence, confusion about what a solar field is or *can* be also results in confusion among governments, developers and local inhabitants on what a solar field *should* be.

Fortunately, a number of designed solar fields have been constructed in recent years. Studying these allows us to contribute to a better understanding of solar fields and hopefully dissolve the ambiguity surrounding the different types of solar fields. In 2019, we visited and analysed over ten solar fields in the Netherlands, Germany, the United Kingdom and Italy. Advancing earlier research, we specifically looked at which functions (besides electricity production) were added and how the solar fields responded to the character of the surrounding landscape.

We identified a great variety of functions. Efforts are made to retain water, new habitats are created and fruit trees or olive groves are planted. Furthermore, there is room for informal meetings, lookout points are created and charging points for electric bikes are added.

We analysed three main variables of how the solar field responds to the surrounding landscape: parcellation, connectivity and visibility. Parcellation deals with how the patches of PV panels relate to the parcel (or grain) size and the shapes present in the landscape. In some cases, the existing parcellation was replaced by the new one from the solar field. In other cases, the PV patches are carefully fitted into existing parcellation patterns, often to ensure a reversibility of the temporary intervention.

Solar fields can influence the connectivity of the landscape for both humans and animals, by adding, changing or removing linear infrastructures. A special form of connectivity is when a solar field is accessible, thereby adding a road structure. So far, we have only identified this at Solarpark De Kwekerij.

Visibility concerns the degree to which the solar field can be observed, and if screening measures (if present) match with the character of the larger landscape. In most cases, solar fields are largely withdrawn from view. Visibility is decreased either by a careful setting within the existing landscape (adjacent to existing forest edges, for example) or by using screening measures such as hedgerows.

Although at the time of writing this research is still ongoing, it seems scale, connectivity, accessibility and function are important features to distinguish between different types of solar fields. For obvious reasons, scale distinguishes between a solar garden and a solar landscape: a solar garden of 100 hectares seems misnamed. However, especially large-scale solar fields are hardly visible due to their low height: often it's primarily the edge of the solar field that is visible.

Contrary to current use of the word solar park, accessibility seems a key feature of a solar park. On the other hand, deliberately inaccessible (for humans) solar fields aiming for high biodiversity and natural values still seem without a proper term. Function seems essential to distinguish between the monofunctional industrial standard and multifunctional solar fields. Furthermore, common park functions such as meeting, walking, wandering and resting can also be transferred to solar parks.

Research on designed solar fields provides valuable insights into what the main features of solar fields are and how they can be designed. Increasing clarity in the terms used for solar fields supports the debate on what type of solar field is required in a certain landscape.

We have encountered a number of solar fields that have been designed in the last two decades. We believe the need for designed solar fields will only increase in the decades ahead of us, especially in landscapes with a high population density. Landscape architects and other environmental designers therefore need to keep exploring and adding new types of solar fields. They can support governments, developers and local stakeholders in what type of solar field is suitable for a certain landscape and continue to explore creative designs for solar fields.

The use of a discontinuous hedgerow at Solarfeld Gansdorf aims to reduce the visibility of the solar field and at the same time mimic the appearance of the surrounding landscape structure.
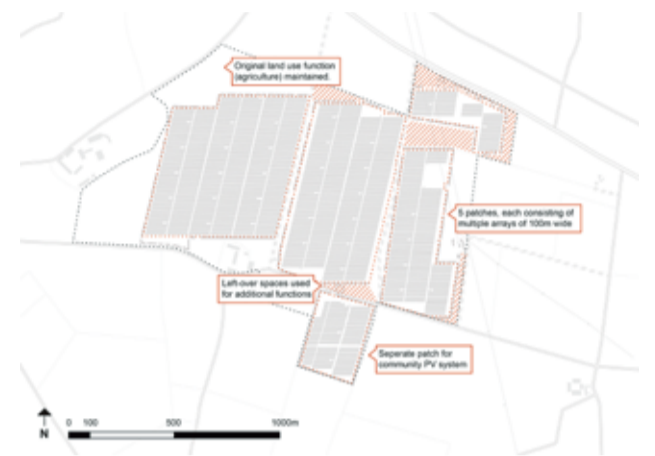
At Solarfeld Gansdorf, the agricultural land use around the solar panels is maintained.

Water run-off from solar field Monreale (Sicily, Italy) is collected in a basin and consequently used for the olive grove that is part of the solar field.

Passage for small mammals at Verwood solar farm (Dorset, United Kingdom).

TAKE A STAND

Spatial research is more than just ticking boxes,
argue René Boer and Michiel van Iersel.

Text   RENÉ BOER AND MICHIEL VAN IERSEL

'The assignment centres on the transformation of the site into a highly sustainable, urban mixed-used area. Floor Space Index 3.5; housing 55 per cent; owner-built housing 20 per cent; working spaces 15 per cent; retail 10 per cent; social facilities 5 per cent; parking 0.3 per housing unit.'

Last year, we encountered this kind of description in the outlines for a design course at the Academy of Architecture focusing on a small site in Amsterdam-Noord. In only seven weeks, students were supposed to rush straight to the drawing table and start producing the requested deliverables according to such requirements. Needless to say, there was almost no time available for the students to stand back, pause, reflect and, most importantly, research the site, its layers, and the social, ecological and other conditions.

It left us wondering how students, with no opportunity to conduct a precise analysis or without the freedom to formulate their own ambition, can actually make informed and substantiated choices in the design process. Following the Academy's ambition to create more room for reflection, it was therefore decided to connect this specific course to a purely research-focused course dealing with exactly the same site. We were excited to get the opportunity to develop it. While our course, entitled 'People & Society', was limited to seven classes, our aim was still to give the students an opportunity to get a taste of the importance of research in their fields.

By asking a broad mix of practitioners from different backgrounds to teach in the context of the course – including an community organizer, a critic, a historian and a journalist – we wanted to bring a wide variety of research methods to the table. In the end, students worked with some techniques that are already quite established in spatial research, such as analysing historical maps, studying the context through a camera lens or conducting forms of embedded, on-site journalism. Other methods that have been explored, such as unravelling and smartly combining online data sets, analysing linguistic developments in the surrounding neighbourhood, or applying techniques used by housing activists, have been much less common until now, but definitely proved to be new and relevant ways of understanding a certain site in all its dimensions.

Overall, collaborations between the students and the researchers-instructors showed again that spatial research is about so much more than ticking the box of getting a quick *vox pop* or statistical overview. In reality, combining a wide variety of thorough, methodologically sound research approaches can generate crucial new insights, which can radically inform and change the choices made in and about a project. Not only can it influence choices on the design level, it can also shape the sociopolitical position of the designer. How is power spatially distributed, and how can we relate to that? How can design tools be used for research and what new tools, methods and collaborations are necessary? How can social, political and other aspects be taken into account?

Being able to navigate such fundamental questions should be a central part of any kind of spatial design practice, and of design education, for that matter. It was interesting to see some of the students already making critical changes in the parallel design course as a result of their research outcomes. It is, however, only by learning to master a wide variety of tools, their potential and their ethics that research can really make a difference. While some of these tools require years of hands-on experience (activist techniques), or can be considered a form of art in themselves (photography), it is in the power of architecture, as a broad, artistic field, to unite these approaches in a larger, visionary and critical profession and apply them spatially in situations that matter most.

In this day and age, with the world being rapidly redesigned by mankind, we might want to take it one step further. Rather than using spatial research to improve business-as-usual design projects that add more concrete to this planet, we might also see this kind of research increasingly as a standalone, critical spatial practice in itself. The proliferation of collectives and studios such as Forensic Architecture (examining human rights abuses with architectural tools), Incompiuto (researching Italy's thousands of abandoned public works), or our very own Failed Architecture suggests that this could increasingly be pursued as a career trajectory after graduating from the Academy.

Glossary of keywords from Nieuwendammerham. Students: Maurits Hooiveld, Reinier Gramsma, Vyasa Koe, Luuk Koote, Esteban Lena, Kilian Lode, Ellis Soepenberg, Antoni Stamm. They were tutored by Charlie Clemoes.

RESEARCH

18

ELECTRIC CITY

Sven Stremke conducts research into sustainable energy landscapes. As a resident of Amsterdam, he has been involved in the preparation of the Amsterdam Energy Strategy. How are the cities that want to generate sustainable energy faring?

Text   GERARD REIJN

SVEN STREMKE   'I've looked it up recently: cities take up 3 per cent of the planet's surface, but they produce 70 per cent of all CO_2 emissions. This means that people who live in cities face a big responsibility to do something about those emissions, because continuing in this vein will do huge damage. Most sustainable energy has to be produced in rural areas nevertheless. But cities can't just look at the countryside and expect it to solve our energy problems. We have to make it clear that the cities are also making the effort. Yes, you could compare that with earning indulgences.'

GERARD REIJN   But given its building density, the city may not be the best place to generate energy, right?

SS   'It's not that bad. In workgroups, we've been on the hunt for square metres that we can use for this purpose. We've found some wastelands and infrastructure on which we can erect solar panels. We don't think the city will be any worse off as a result. Our attitude is very positive. We want to make the city better. We also want to try to solve other problems. In the Green Heart, we are involved in a project to reintegrate a former rubbish dump into the landscape. That's clearly an improvement. We want to use such tricks in the city as well.'

GR   Where exactly would you be able to do that?

SS   'Look at the sites in the Amsterdam port where coal used to be stored, partly in transit to Germany, but largely for the Hemweg power station. That power station is now closed. They're going to build a residential area there, but that could easily take another 30 years. That means that we can use that site to generate energy for another 30 years. At the same time, we can plant the site to improve the polluted soil.'

GR   Is the city going to look different?

SS   'Sure. I can tell by my students. When they develop buildings, they orientate façades and roofs to the south as a matter of course. We can already see it happening in the city districts that are now being developed. In Havenstad, for example, a district under development in the harbours of Amsterdam, the position of the houses optimizes the use they can make of solar energy.'

GR   And how do you feel about building glass towers, like those along the Zuidas?

SS   'That building style really belongs to the fossil energy era. It's no longer an option. So sure, the city will change. And there will be solar panels everywhere. On roofs, on façades. Infrastructure will follow suit. We've already looked into the possibility of partially covering the A10 ring road with solar panels. We can attach them to noise barriers.'

GR   So you think the city will benefit?

SS   'That's what I think. Thousands of people are busy making plans to solve all this. That's a major creative quest. We do face problems when it comes to financing renewable energy; people tend to only look at productivity. Money has to be earmarked to create good-looking solutions. If the subsidy schemes for renewable energy won't, then we have to find the money elsewhere.'

GR   Surely the city isn't the right place to erect windmills?

SS   'It isn't the *best* place for it, I'd say. But in order to meet the climate targets, we have to use every means at our disposal. We can't rely on solar power alone. And like I said, people who live in cities have to show that they are making the effort. Renewable energy also has great advantages for a city. At this time a lot of energy money goes abroad: for coal, oil and gas. Soon, all that money will stay at home. That means: a lot of jobs.'

This article was previously published in Dutch newspaper *de Volkskrant* on 12 February 2020.

The Hemweg power plant in Amsterdam is now closed.

Photo Poech

PUBLICATIONS

The Amsterdam Agenda: 12 Good Ideas for the Future of Cities

Daan Roggeveen, Michiel Hulshof, Frances Arnold, nai010 (2020)

From climate change to migration, all across the world cities are having to come to terms with contemporary challenges for which there are few easy answers. The Amsterdam Agenda invites 12 urban thinkers to share their knowledge, insights and vision for the future of cities in light of today's ongoing transformations. Be it the repercussions of over-tourism, alternative forms of civic engagement or incorporating new technologies into existing infrastructure, these are urgent issues with global impact.

Based on a 2018 lecture series at the Amsterdam Academy of Architecture, *The Amsterdam Agenda* brings together the views of today's brightest names from the fields of architecture, planning, activism and more. Initiated by Daan Roggeveen (MORE Architecture) and Michiel Hulshof (Tertium), the pair co-wrote the acclaimed *How the City Moved to Mr Sun*, which examines China's new megacities.
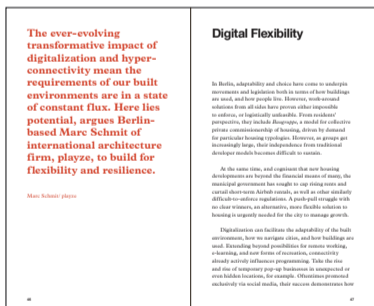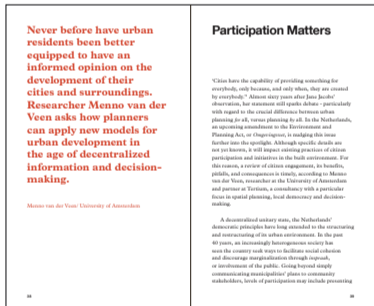

Graduation Projects 2018–2019: Architecture, Urbanism, Landscape Architecture

Vibeke Gieskes (ed.), Amsterdam Academy of Architecture (2019)

Architects, urban designers and landscape architects learn their profession at the Amsterdam Academy of Architecture through an intensive combination of work and study. They work in small, partly interdisciplinary groups and are supervised by a select group of practising fellow professionals. There is a wide range of options within the programme so that students can put together their own trajectory and specialization. With the inclusion of the course in urbanism in 1957 and landscape architecture in 1972, the Academy is the only school of architecture in the Netherlands to bring together the three spatial design disciplines under one roof.

Graduation Projects 2018–2019 features the work of students who obtained their degree during the 2018–2019 academic year at the Amsterdam Academy of Architecture. The projects by the 31 Masters of Science in Architecture, Urbanism and Landscape Architecture are introduced by Madeleine Maaskant.
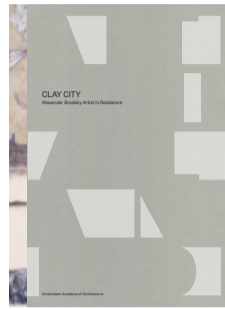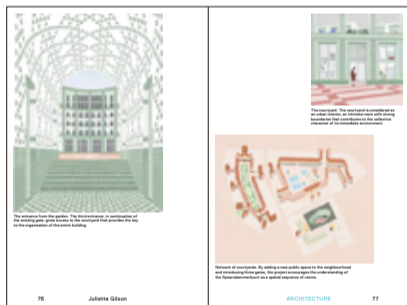
Clay City: Alexander Brodsky Artist in Residence

Jan-Richard Kikkert, Madeleine Maaskant, Jeanne Tan, Amsterdam Academy of Architecture (2019)

The 2019 Winter School at the Amsterdam Academy of Architecture was led by Russian architect and artist Alexander Brodsky. He was invited as an artist in residence as part of the AIR programme of the Amsterdam University of the Arts. Together with Brodsky, 136 first- and second-year students worked tirelessly from 14 to 25 January 2019 to collectively build an imaginary city of clay. Temporarily occupying the Academy's courtyard, it was an impressive sight: a vast, dense cityscape handmade with an incredible wealth of detail. It took us on an architectural tour through history from ancient Rome to future Amsterdam. Then left to the Dutch elements for six weeks, the city started to disintegrate. *Clay City* reflects on the Winter School.

Annual Newspaper 2018-2019

Madeleine Maaskant, Joseefke Brabander, David Keuning, Amsterdam Academy of Architecture (2019)

In the *Annual Newspaper*, the Amsterdam Academy of Architecture looks back on the education and research carried out in the preceding academic year. It allows the Academy to share what was taught, studied, drawn, written, made, built, discussed, organized and exhibited. From yearly fixtures in the curriculum like the Start Workshop and the lecture series to once-in-a-lifetime experiences such as the Winter School and the Eurotour, the *Annual Newspaper* covers it all. This edition features a centrefold poster that shows the result of the hard work by Alexander Brodsky and over 100 first- and second-year students during the Winter School.
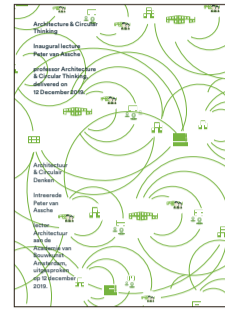
Architecture and Circular Thinking: Inaugural Lecture Peter van Assche

Peter van Assche, Amsterdam Academy of Architecture (2019)

On 12 December 2019, Peter van Assche, professor of Architecture & Circular Thinking, delivered his inaugural lecture. In the fully packed main auditorium of Pakhuis de Zwijger, he took his audience on an evocative mental tour from the island of Lilliput in *Gulliver's Travels* to the photo series of manufactured landscapes by Edward Burtynsky and the Netflix series *Mad Men*. Van Assche strives to formulate answers to social questions by using circular thinking in this world's most beautiful profession, namely designing our space. *Architecture and Circular Thinking* is the attractively published text of his inaugural lecture.
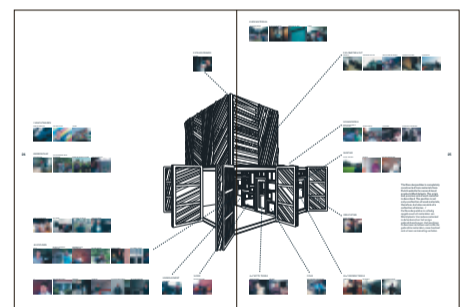
IN SEARCH OF RESEARCH

During the research visitation conducted on 21 November 2019, the practice-oriented research at the Amsterdam Academy of Architecture was rated as excellent. But what is the significance of practice-oriented research in the context of design education?

Text   DAVID KEUNING

During the past academic year, three of the Amsterdam University of the Arts's Academies, including the Academy of Architecture, were the subject of a research visitation. On behalf of The Netherlands Association of Universities of Applied Sciences, independent panels visit all research networks in the Netherlands once every six years. The panels consist of a chair, a secretary and a number of authoritative peers. In the case of the Academy of Architecture these were landscape architect (and professor at Delft University of Technology) Eric Luiten and architecture historian (and senior lecturer at the University of Amsterdam) Petra Brouwer. The research conducted by the research networks over the past years was assessed on the basis of five subjects: content, organization, quality, impact and evaluation system. Three of the Academy of Architecture's five research networks scored 'excellent', which was also the final verdict.[1] The Academy of Architecture was naturally pleased with this outcome, which re-affirmed that it is on the right track with regard to practice-oriented research.

The Academy of Architecture considers conducting practice-oriented research increasingly significant. First of all, it is important that the new generation of designers learns research skills as well as design skills. These skills become more important in practice; clients are increasingly asking designers to help them formulate requirement programmes; in such cases designers first have to (re)define the client's question clearly before they can start to design. In addition, the Academy of Architecture aims to contribute to the socially urgent themes of our time – including sustainability, circularity, healthy urbanization and energy transition – through the careful selection of research themes. The Academy's three research networks' (Architecture, Urbanism and Landscape Architecture) research programmes each address these themes in their own way.

Although lecturers flesh out the research network entrusted to them in their own way, they all share a focus on practice-oriented research. This is not only in line with the research mission of the Amsterdam University of the Arts, but also concurs with the situation at the five other Dutch Academies of Architecture.[2] This sets the research of the Academy of Architecture apart from the research taking place elsewhere in the Netherlands, for example at the two Universities of Technology and Wageningen University. At these institutes the research is conducted by a large number of disciplines – an exhaustive discussion of all of these disciplines falls outside the scope of this text, but architecture can serve as an example. In accordance with their research goals, universities can approach architecture from the perspective of architectural design, public housing, real estate studies, building technology, statistics, building physics, sociology, philosophy, history or theory. Each of these disciplines has its own research tradition and uses its own research methods, which differ greatly.

Research at the Academy of Architecture is mainly practice oriented. Over the past decades a great deal of thought and writing has gone into determining the scientific calibre of practice-oriented architectural research (which, for the purposes of this article, also includes research in the field of urbanism and landscape architecture) and, in a broader sense, of design research in general. The number of congresses on the subject alone illustrates the scope of the ideation on the subject and the importance attached to the subject in design education. These include the Research by Design Conference (Delft, 2000), Research and Architecture (Paris, 2000), Conference in Design Theory and Methodology (Montreal, 2002), Four Faces: The Dynamics of Architectural Knowledge (Stockholm and Helsinki, 2003), Conference on Research and Design (Delft, 2004), Knowing by Design (Brussel 2013), Conference of Architectural Research by Design (Lisbon, 2014), DRS2016 (Brighton, 2016) and Impact by Designing (Leuven, 2017).[3] The number of publications in this field is also impressive. This article aims to provide the concepts concerned with a short theoretical basis and summarize current insights in this field.

The abovementioned DRS (Design Research Society) was founded in 1966 after the Conference on Design Methods had been held at the Imperial College in London in 1962. This conference, which is seen as one of the first attempts to take a systematic approach to this subject, essentially developed into an biennial event that has taken place 22 times since (with a few interruptions, most recently in 2016). In

the original sense, 'design research' referred to research into the nature and working method of the design process. The design process as a creative activity was examined and described from the outside. Initially architecture and product design were two important subjects of this type of research; speakers at the first congress in 1962 included product designer J. Christopher Jones and architects Christopher Alexander and Joseph Esherick.[4]

The question into the scientific calibre of architectural research is important, because many architecture academies operate from scientific institutes. The three requirements that research have to meet in this context (controllability, repeatability and fallibility) hardly apply to architectural design processes; generally speaking, these work out less consistently than scientific research. This starts with the research question: a scientific hypothesis is of a completely different nature than a programme of requirements that forms the starting point of a design process. The three scientific requirements mentioned above do not bear on the design process, because the considerations that lead to a complete design for a successful end result are not necessarily important to clients, to whom only the proper functioning of the building (or city or landscape) counts. The considerations that lead to the completed design are primarily important to architecture historians and other specifically interested parties.

The individual design process is not aimed (primarily) at the acquisition of knowledge either, but rather at the completion of a commission. Over the past decades the insight nevertheless emerged that the design process is a valuable, independent form of coherent knowledge production that, although it has other characteristics than scientific knowledge, is on an equal footing with it. This does not only concern the amassing of knowledge during a single design process, but also the accumulation of knowledge that takes place during several design processes, in a single office or even in various offices. For this reason, the term Design Research is sometimes divided into two distinct types: Research *on* Design (which covers the original sense) and Research *by* Design (which describes the more recent perspective).

In 1993, Christopher Frayling refined this division even further, into the three variants that are so often cited in the context of this subject.[5] He distinguished Research *into* Design, Research *through* Design and Research *for* Design. Research *into* Design describes research into the design process from, for example, a historical, social, political, cultural or technical perspective, on the basis of the research methods widely used in the relevant fields of science. Research *through* Design means research by means of the design process. The reason for this type of research is often the need to answer a technical question in the field of, for example, materials science and the objective is primarily a communicable result that is universally valid. Research *for* Design, finally, is the type of research that takes place during regular design processes and that, for example, takes place at architecture offices. Rather than make a universally valid statement, the goal is to realize a unique object on the basis of a created design. Frayling's three terms are often used next to the two mentioned above, which sometimes leads to confusion in the conceptual apparatus.

Frayling's approach is valuable because it distinguishes between the different types of architectural research that take place at educational institutes. Research *into* Design and Research *through* Design usually take place in the context of set scientific frameworks and therefore pose fewer problems than the design process in the case of evaluation.[6] Universities of Technology facilitate research in all of Frayling's three categories; only the first two are expected to meet the three requirements for scientific research. Academies of Architecture, however, mainly facilitate Research *for* Design and it is here that the development of an objective evaluation framework for this type of research is most urgent.

An important characteristic of Research *for* Design, which sets it apart from the other two types of research, is the fact that Research *for* Design is mostly based on drawings, whereas the other two types of research mainly use the written word. The idea of drawings as information carriers that are complementary (and therefore equivalent) to the written word is relatively new, but has struck a chord. A drawing is a means of verification, control and execution and makes ideas visible and measurable.[7] Moreover,

a drawing is as much a means of communication as a text.

In the context of this discussion the clarification of the definition of the term 'research' is also indicated. A widely used and authoritative definition can be found in the glossary of the appendix to the Dublin Descriptors adopted by ministers from European member states at the Bologna Bergen Conference in 2005, which describe the final attainment levels of three education cycles: Bachelor, Master and Doctorate. In this accompanying glossary, 'research' is described as follows:

'The word "research" is used to cover a wide variety of activities, with the context often related to a field of study; the term is used here to represent a careful study or investigation based on a systematic understanding and critical awareness of knowledge. The word is used in an inclusive way to accommodate the range of activities that support original and innovative work in the whole range of academic, professional and technological fields, including the humanities, and traditional, performing, and other creative arts. It is not used in any limited or restricted sense, or relating solely to a traditional "scientific method"'.[8]

It is thus important to note that the Dublin Descriptors explicitly include research that takes place at design academies in the type of research that can be conducted in the context of the three educational cycles, including the Doctorate.[9] This appears to legitimize the claim that the design process is a form of scientific research.

1. The highest score given in the written report is 'good' due to an agreement between the AHK and the evaluation office.
2. Board of Governors AHK, *Strategisch Plan AHK 2018–2023*, 11 July 2018, page 5.
3. See, for more examples of conferences on this subject: Maria Voyatzaki, '(Ad)ventures of Doctoral Research in Architecture: Attachment, Autonomy, Ambivalence', in: Maria Voyatzaki (ed.), *Doctoral Education in Schools of Architecture across Europe*, ENHSA European Network of Heads of Schools of Architecture, s.l., 2014, pages 13–14.
4. J. Christopher Jones, D.G. Thornley et al., *Conference on Design Methods: Papers Presented at the Conference on Systematic and Intuitive Methods in Engineering, Industrial Design, Architecture and Communications*, London, September 1962, New York, Macmillan, 1963.
5. Christopher Frayling, 'Research in Art and Design', *Royal College of Art Research Papers*, Volume 1, No 1, 1993/94, pages 1–5. Frayling in his turn made use of Herbert Edward Read's ideas on research and art.
6. Jørgen Hauberg, 'Research by Design – a Research Strategy', in: *LabArt, AE Revista Lusófona de Arquitectura e Educação*, 2011, No 5, pages 46–56.
7. Clemens Steenbergen, Sabine Meeks, Steffen Nijhuis, *Ontwerpen met landschap: De tekening als vorm van onderzoek*, Bussum, Uitgeverij Thoth, 2008, page 23.
8. *Shared 'Dublin' Descriptors for Short Cycle, First Cycle, Second Cycle and Third Cycle Awards: A Report from a Joint Quality Initiative Informal Group* (contributors to the document are provided in the Annex), 18 October 2004.
9. The most recent reaccreditation of the Academy of Architecture took place in 2014. This reaffirmed that the curriculum is in line with the Dublin Descriptors. See Hobéon Certificering, *Beoordelingsrapport beperkte opleidingsbeoordeling hbo-masteropleidingen Architectuur, Stedenbouw en Landschapsarchitectuur, Academie van Bouwkunst, Amsterdamse Hogeschool voor de Kunsten*, 17 July 2014, page 6.

RESEARCH

EXTREME HOME MAKEOVER

The Startworkshop was a beautiful example
of creative chaos.

Text DAVID KEUNING
Photos JONATHAN ANDREW

On the day before the Startworkshop, Bruno Vermeersch and Michiel Zegers were bustling about with metal stud profiles, timber beams and sheets of OSB, triplex and MDF. They used these to put together 22 walls that, after being configured in the courtyard, formed eight enclosed patios.

What all this was about became clear on the next day, 30 August. After welcoming the fist-year students, Vermeersch screened some videos of artists that work with spaces and boundaries. Gordon Matta-Clark makes geometric holes in the walls and floors of buildings that are in many cases up for demolition. Japanese artist Yayoi Kusama, also known as 'the queen of polka dots', explores boundaries and boundlessness by covering walls, ceilings and floors with lively multicoloured patterns. Pieter Vermeersch, finally, paints walls in beautiful, gradually changing colour gradients. The message was clear: the students were allowed to work on the walls in any way they wanted. At the end of his presentation, Bruno Vermeersch also screened a couple of videos of daredevils scaling high walls in urban areas without any equipment.

The latter did not fall on deaf ears. After some hesitation the first students jumped over the fences. Before long, sawing and drilling machines were turned on and the first walls demolished, passages created, spaces roofed over, small annexes constructed and art installations created in the patios. The students were supervised by buddies (senior students) and by artists Pim Palsgraaf and Bart Eysink Smeets. At the end of the day artist Noël Loozen gave a speech from a distance – from a beach in France. Loudly, his voice echoed across the courtyard through loudspeakers: 'Be proud of your constructions and be proud of your failures. Give each other a big hug. And remember: love is the most important thing in the world.'

EDUCATION

OFFLINE IS OFF THE LINE. BUT IS ONLINE ON THE LINE?

In the week following 15 March, teaching and learning moved online. Despite the challenges, we should harness our experiences in the virtual world as a source of innovation, argues head of urbanism Markus Appenzeller.

Text   MARKUS APPENZELLER
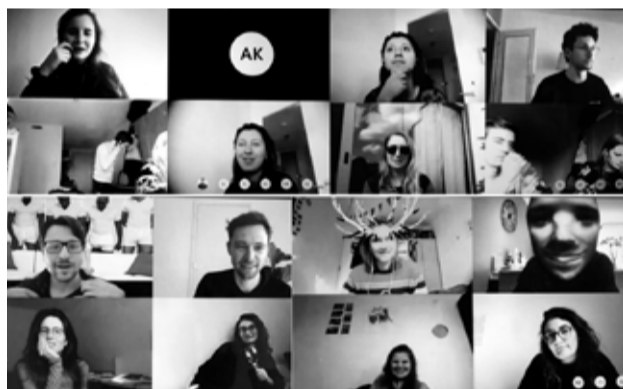
Friday night drinks online.

On 23 March, Ben Taken gave an online lecture in the C2b series History, Philosophy and Art.

Like many other schools, the Amsterdam Academy of Architecture had to switch its teaching and learning to online environments. In the beginning we – and with us many others – thought that online teaching is the same as offline teaching with a piece of technology in between. We were wrong.

Theatre is different than a TV show. Narratives change, the role of the entertainer is different, attention spans, attitudes and the whole experience of space are different. When it comes to our professions, all of a sudden we can only experience a place by means of media and maps. Real three-dimensionality had to make room for the confines of a two-dimensional screen.

What have we learned so far?

Online teaching and learning lack the informal. Small and seemingly unimportant aspects of communication turn out to be hugely important for being able to assess the wellbeing of someone, how a comment or critique is received or if someone understands at all what is meant by a statement or reference.

Online teaching and learning are exhausting. Being crammed behind a computer for hours, trying to follow a lecture or a studio critique, is a challenging undertaking – both for body and brain. The ever-similar perspective and the repetitive nature of the same format provide little incentive to mentally stay engaged. The fact that the body is not moving doesn't improve the situation – especially when the evening course follows a working day spent in the same space, in the same setup.

Online teaching and learning are demanding. We are all beginners in this new learning environment. Some have a bit of experience, but most don't – for good reasons. After all architecture, urbanism and landscape architecture are disciplines that explore spatial concepts for specific places. Both space and place are not easily replicable in a virtual world. That seems to be the reason why for a long time, we did not develop much interest in online learning – certainly compared with other disciplines like business administration or humanities. Now we have been forced to find out that many things we didn't deem desirable offer new opportunities that can be explored and that need to be developed – a demanding process.

What to do with that insight?

Of course, one could see this as a temporary episode that is interesting to experience but easy to forget when things get back to normal. But that would be a missed opportunity. There are many things that are worth rethinking and developing, since they offer an extension of our methods of teaching and learning and of our three professions. One could contemplate a toolbox that can help us reconnecting with the avant-garde that we claimed to represent 100 years ago but since have fallen behind – certainly when it comes to the use of cutting-edge technology. But it can be more. Covid-19 can become a trigger to provide better answers to the problems we have been facing since quite some time: climate change is not disappearing, global collaboration is more important than ever, and inclusiveness is still a problem. While these new tools need time for development and testing, I've nevertheless taken the liberty to come up with a list that is neither exhaustive nor conclusive, but rather an invitation to join us, thinking further.

ONLINE AND OFFLINE

Why do a studio lecturer and a student always have to be in the same space? There are advantages to being physically together: one can have an interactive conversation around a design proposal. But there are also moments in any studio that are about strengthening one's own thoughts, summarizing and presenting them. In these cases, it can even be an advantage to be in an online setting, since that forces everyone to focus on what is being presented. Imagine a studio where you can do both – interact and focus – and switch back and forth between the two.

INTERNATIONAL ALL THE TIME

Now add to this thought a dose of international input. The Academy of Architecture has always struggled to attract lecturers from elsewhere in the world. Professionals simply cannot commit to being in Amsterdam for 16 weeks consecutively on Wednesday evenings. Adding an online component to a studio could help to solve this problem. A combination of one lecturer online and another in the studio could bring a new atmosphere – especially when

Robert-Jan van der Linden shows a project at a midterm presentation in the second half of March.

Guest lecturers Anne Nieuwenhuijs, Kim Kool and Willemijn van Manen organized an online excursion to a farm in the province of Brabant for the P2b Building in Landscape.

On 20 April, Laura Rokaitė gave the first online graduation presentation. Her project, titled Re-Space, was about working and learning spaces for people who have moved to a new city, with half of the users being refugees and the other half local people. The project location was in Vilnius, Lithuania.

that online lecturer is a specialist in a particular subject. It would also allow roles to be defined: an online lecturer for the strategic questions, an offline lecturer for the tactical and spatial ones.

A LECTURE AS A MULTILAYER EXPERIENCE

Learning comprises not only doing and designing, but also building knowledge. This often takes place in the form of lectures – with varying success and with fluctuating attention of the audience. Of course, the audience's attention depends on the speaker and the topic, but it's also a result of a change in how we consume and process information. Watching TV today is different from what it used to be in the 1970s. Lectures, on the other hand, are still the same, except for the usual slide hiccups having been replaced by the usual PowerPoint failure. Lectures online, however, can offer a much more multilayered experience. Besides watching, listening and saving questions to the very end, chat channels can be used to answer questions or discuss what has been said. Links to other resources can be explored and guests or co-presenters can easily be involved. If this is done well, it can create a much more immersive learning environment that stimulates more senses and leads to better results – and it can be a way to adjust the offline lecturing practice as well.

A VIRTUAL TOUR OF THE WORLD

In recent weeks, our ability to see the world with our own eyes has been reduced to a local context. Seeing places and being exposed to them is an activity students and lecturers alike are missing. And while nothing replaces the personal experience, it is now clear that we can learn a lot about a location by using the Internet. We've become online versions of Miss Marple and Sherlock Holmes – detectives trying to find evidence of the *genius loci*. This delivers a different understanding of the context we design for. It offers another layer of understanding and another method of approaching a problem that is a valuable complement to 'going and seeing for yourself'.

NEW WAYS OF SHOWING PROJECTS

Architecture, landscape architecture and urbanism have developed established and specific ways of showing things: plans, sections, elevations, perspectives of various kinds. While the latter might work on a computer screen, the former three have their limitations on a 1080 × 720-pixel video screen. Presenting online doesn't mean presenting offline online. It means coming up with different ways of showing things, using moving images, zooming in and out, a linear narrative rather than a circular one and a more focused way of presenting, in order to avoid the audience getting bored. To do this well, we need to adjust our representations, work on our storytelling and learn new technologies. The benefit: our professions learn to communicate in new ways that can help us escape our ivory towers and make what we do more understandable to new and wider audiences.

DESIGNING VIRTUAL SPACE NEXT TO THE PHYSICAL

When we design space, we usually refer to the physical – the space defined by nature, infrastructure, floors, walls and ceilings. Online teaching and learning forces us to accept that there is the other space – the virtual space in which we 'meet', 'chat' or 'present'. Time and again we struggle with the limitations of that space. This has to do with technical constraints, but it also is due to the fact that this space has not been conceptualized by spatial designers but by software developers. Therefore, it has never moved beyond bits and bytes or – in the best case – skeuomorph copies of the physical world. What if our professions thought and designed beyond the boundaries of the physical and the virtual, in order to make better places for meeting, chatting and presenting?

URBAN OPERATING SYSTEMS

Cities are changing physically, but the biggest changes in our cities are invisible. In recent years, with the success of mobile communication in our pockets, we have seen a profound change in how we use cities. Google Maps guides us, Uber moves us and Deliveroo feeds us. Additionally, traditional urban infrastructures greatly extended their services into the virtual world. Power meters tell us how to save energy. Parking fines are issued by mobile parking scanners. Parking fees are paid using apps. Together these changes amount to an urban operating system – a system that will become even more important in the aftermath of the current crisis. When this system emerged the spatial disciplines were left on the sidelines, but our knowledge of space and its implications can become a key ingredient to the development of the next version of this system. In order to evolve further, it needs to become spatial again. It requires changes to the physical makeup of the city. Online teaching and learning in architecture, urbanism and landscape architecture provide the perfect testing ground for these virtual/physical interfaces since they do exactly that – operate on the edge of both.

PARTICIPATION

Involving stakeholders and the general public in the design of buildings, cities and landscapes is becoming increasingly important. Projects without public consultations hardly exist anymore. They usually take the form of meetings that follow the same dynamic: those who shout the loudest are heard while those who might have sensible proposals don't even attend because they detest those shouting. At the moment of writing, community gatherings cannot take place. They have been replaced by all kinds of other forms of interaction. What used to be a rather static exercise has become a field of exploration and innovation. New groups can claim their share in the process, since shouting louder does not do the job anymore and technology provides new ways of access. As architects, urbanists and landscape architects, we should and we can reclaim these participation processes and make them a much more serious part of our work again.

THE ROLE OF CODING

The structure in the online world is code. If we want to combine the virtual and the real in new ways, we need to learn to work with this material as we do with wood, steel or concrete. Coding should have a place in our curriculum. With architects typically being the opposite of the coding nerd, there is even a chance that we could develop our own languages of code in the virtual world. Urb++, archiscript or greencode could be the tools of the future – designed by spatial thinkers.

During our last study board meeting before moving to the virtual world, we all agreed to see this challenging time as an opportunity to learn lessons for the future. We want to use it as a calibration point, a moment of rethinking and reassessing all our customs and habits. They are challenging our world, our professions, and the way we learn and teach. These are times for writing manifestos. They are times to invent, to adjust and to try out – the very foundations of any avant-garde.

Students celebrate the successful completion of the practical experience assessments on Teams. On Wednesday evening 15 April, 101 students presented their work to 26 committees, consisting of 52 assessors. On Thursday evening 16 April, 100 students presented their work to 25 committees, consisting of 50 assessors.

25

THE MEN WHO MAKE THE MAKERSPACE

The MakerSpace at the Marineterrein is manned by a triumvirate: Martijn Troost, Bo Jansen and Peter Schuitemaker. Jansen and Schuitemaker have been working at the Marineterrein since August 2019. Time for a more extensive introduction.

Text   DAVID KEUNING

DAVID KEUNING Can you tell us a little bit about yourself? What did you study and what did you do for a living before you joined the Amsterdam University of the Arts?

BO JANSEN 'I graduated from Delft University of Technology as an industrial designer in 2005. Next I worked at various design offices and design divisions, for example at pram manufacturer Bugaboo and at Studio Joris Laarman. Besides working at MakerSpace I also work as an independent product designer, I'm a 3D printing specialist. I create design objects at the intersection of art and technology under the name *voronoi*. One of my better-known projects is the 3D-printed *Strandbeest* I developed in collaboration with artist Theo Jansen. An early adopter in the field of 3D printing, I've also given guest lectures and workshops on 3D printing and designing 3D prints at various courses, for example at Delft University of Technology, the Royal Academy of Art The Hague and the Amsterdam University of the Arts, and at the Visual Arts Academy that's now called the Breitner Academy.'

DK What was the most important thing you learned at Bugaboo?

BJ 'When I worked there in 2008 on the development of a new pushchair, we built prototypes consisting of 3D printed parts. At one point during the test drives, we discovered that the strength of a properly designed prototype would match that of the intended end product. From this I concluded that 3D printing as a production technique had matured to such an extent that for the first time you could also use it to make end products, not just models or visual prototypes. That was an aha-moment for me. After that I started to focus more on 3D printing.'

DK What's the nicest thing you ever experienced at the MakerSpace?

BJ What I like a lot is to see students being amazed, happy and proud when their results turn out better than they expected. But every day we get to make some nice models or objects is a real treat. And then when the weather is fine, we'll have the garage door open and good work music playing in the background and that's absolutely perfect. I really miss it, now that we're all quarantined at home.'

DK Are there any facilities you think the MakerSpace still lacks?

BJ 'We're always improving the space and the equipment. We've made lots of improvements in the past year and we will certainly continue to do so in the future. We're going to add another projector with audio installation. In the assessment periods we are running up against the maximum machine capacity so we'd like an extra laser cutter and 3D printer as well. Students also sometimes ask us if we have a printer they can use.'

www.voronoi.nl

DK Can you tell us a little bit about yourself? What did you study and what did you do for a living before you joined the Amsterdam University of the Arts?

PETER SCHUITEMAKER After a short stint as a student of Management, Economics and Law at the Alkmaar University of Applied Science I switched to the Wood and Furniture College where I chose the subject Craftsman Furniture Maker. Once I'd graduated I invested all my savings in tools and started my own business. But after a few years I stayed on at the Fiction Factory. The Fiction Factory is a company that makes interiors, furniture, decors and art objects. I worked there for about ten years in various jobs, as a furniture maker, CNC programmer, 3D draughtsman and project leader.'

DK What's the nicest thing you ever experienced at the Fiction Factory?

PS 'Fiction Factory was a motley collection of colourful people who put a lot of time and energy into organizing parties. We once came up with the idea of organizing a scrapheap challenge. We collected all of the company's waste and set out a course on an adjacent field. At the weekend we built racing cars from the waste and raced each other on the track. The whole thing was registered on film and broadcast on local television.'

DK The MakerSpace is used by students from different Academies. Have you noticed any difference between the ways architecture students and film students use the space and facilities?

PS 'The students of the Academy of Architecture mainly use the machines, like the laser cutter, 3D printer and CNC milling machine, to make models. The students of the Film Academy or the Academy of Theatre and Dance use them to make props or set models. But students of other academies increasingly make their way to the MakerSpace as well. The VR/AR space is mainly used for projects of the Film Academy in collaboration with the Conservatory, the Academy of Architecture or the Academy for Theatre and Dance. All of the academies use the big space for presentations, classes, lectures and workshops.'

DK How do you like the location on the Marineterrein? On the one hand there's plenty of space, but on the other it's at some distance to the Academies. Does that bother you, or is it an advantage?

PS 'The distance may be an obstacle to students, but the location is so central that every student of every academy can be there inside 15 minutes, by bike or on foot. Sometimes it's difficult that you can't walk into an academy to ask a question, but we have permanent contact points at the academies and the weekly consultation works great as well.'

EDUCATION

FINDING FORM

Henri Snel, who succeeded Bruno Vermeersch as coordinator of form studies in September 2019, explains the new setup of this subject.

Text   HENRI SNEL
Photos   JONATHAN ANDREW, EMMA HOETTE, HENRI SNEL

The form studies programme Form and Concept is an integrated part of the first- and second-year programmes of the Master's degree course Architecture, Urban Design and Landscape Architecture at the Amsterdam Academy of Architecture and one of the key components of these study programmes.

The various professional disciplines involved differ in scale, approach and execution. They challenge students to explore space at every level and start from experimentation, engagement, skill, conceptual thinking, research and strategy. Main objectives are the development of an individual, recognizable signature and of the ability to establish cross-disciplinary connections and to develop a critical and independent attitude, which requires active reflection on and archiving of research processes.

PROGRAMME

Form and Concept is not only governed by physical or traditional appearances. It can also express analogously, digitally and virtually or by a combination of these. The order of the programme runs from people and space, the physical, under the name Body [SPACE], to the potential under the name Virtual [SPACE].

Body [SPACE] challenges students to explore the choreography of space through movement, dance and mime, individually and together with others moving through the same space. Material [SPACE] focuses on experiments with and research into materials and centres on the quest for new materials, new connections and new forms in relation to the exploration of space. Next, the in-between space is explored and materialized into individual sculptural spatial interpretations in close collaboration with students from other Inter [SPACE] disciplines. Graphic [SPACE] requires students to research sourced (scientific) data and translate these into comprehensible graphic visualizations, to use the acquired knowledge as a means of communication and to apply it directly in individual design processes. Finally, all of the programme components come together in Virtual [SPACE]. Using 3D modelling techniques students develop a Virtual Reality or Mixed Reality environment that supports them as they research, design and manipulate a design task into a virtual reality.

27

EDUCATION

EXPERIMENT

Form and Concept centres on the experiment. The development of a personal interest, individual signature and working method takes place by trying and testing. We conceptualize and experiment by means of (un)orthodox research. Spatial skills, expressive capacity and conceptual thinking are constantly practiced and questioned. The sustainability of used materials and production processes are important for education; this will receive more and more attention as Form and Concept develops.

SKILL

Manual detailing and refining create skill. Repeated sketching, drawing, modelling, experimenting with different media and executing designs on the spot ensures that students can experience and appropriate sensory properties, scale and proportions, functions and applications. In this way students not only learn versatile skills, but they also learn to make connections.

TRANSDISCIPLINARITY

To learn to work and think from the perspective of their own discipline and from that of others, architecture, urbanism and landscape architecture students frequently work together in several small, multiform teams. Operating between, alongside, across and beyond existing disciplines enriches thinking and design processes and is in line with trends in society and professional practice. In addition, we encourage students to investigate and experiment with interfaces between spatial design and other art forms. In this way, the autonomous arts are a constant source of inspiration.

LECTURERS

Various (specialized) lecturers crucially stimulate the thinking and making processes involved in each programme component. It is considered essential that students constantly query their art, research and design practice and are curious about the others. The programme components are aimed at the development of a common language to create new layers through joint thinking.

INTERVAL EDUCATION

We are always looking to enrich programme components with different and new working methods that establish a direct relation between cognitive and physical activities. This way we aim to prevent habituation (a decrease in response to a stimulus after repeated presentations) and achieve maximum focus. This not only involves conceptualization, experimentation and physical production, but also dialogue and reflection, this to stimulate the deepening of the research process.

ARCHIVING AND REFLECTION

The student is always asked to actively reflect on research processes and to systematically archive these using different media to gain greater control over their own working methods in the broadest sense of the word.

(OP)POSITION

As a movement the form studies programme Form & Concept seeks integrated connection to the curriculum. We want to be an (un)orthodox catalyst for finding new concepts and solutions inside education and outside our discipline.

29

A BETTER WORLD

The Graduation Show 2019 showed a great measure of social engagement.

Text   VIBEKE GIESKES
Photos   INGE HOOGLAND

Again this year, the Academy of Architecture was transformed into an exhibition space for the Graduation Show. The courtyard was roofed for the occasion. The courtyard, adjoining gallery, Hoge Zaal, boardroom and entrance hall formed the background to the showpieces of the 2018 – 2019 graduates. Although the physical surface area available for the show of 32 graduation projects was considerably smaller than in previous years, the use of digital screens ensured there was infinitely more exhibition space on balance. And although the exhibition floor was completely built over and packed with art, the courtyard still preserved its meeting place character.

The exhibition design was the most recent of a design triptych by former head of Form Study Bruno Vermeersch and Michiel Zegers. The triptych drew attention to the wastefulness of temporary exhibitions, which is generally taken for granted, in different ways. Vermeersch's most recent graduation exhibition was entitled PLAN NULL and made a clear statement. Circularity was the key word. The structure to roof the courtyard was built exclusively of borrowed materials; these were kept intact as much as possible so that they could be used elsewhere later. Unlike previous graduation exhibitions, which drew attention to the issue of the excessive waste production associated with an institute such as the Academy of Architecture (due to the production of large numbers of models, posters and sketches), this exhibition stemmed directly from a circular approach and displayed the potential of recycling.

The presence of screens allowed the alumni that exhibited their work to present a multitude of designs to the public; the exhibition showed much more work using far fewer materials and less exhibition space. The plans involved often lent themselves to this as well: many of the projects were accompanied by thorough literature and design research and numerous study models.

The graduation projects addressed a variety of themes. Some, especially the landscape architecture plans, echoed the exhibition design theme, circularity. Living together – with other people, plants and animals – received more attention than in previous years. Several projects questioned systems and structures – political, landscape, urban design, historical and social ones. Clearly, the young alumni actually intend to change the world, not only spatially, but also politically, socially and culturally. We have to reconnect city and nature, pay more attention to the present in relation to the past, pay more attention to each other and start to look for loopholes in the law. A few plans were clearly activist. Hopefully these graduates will continue to propagate their views as professionals in the world outside the Academy of Architecture and, as architects, urban designers and landscape architects, help to make the world a better place.

EDUCATION

At the closure of the Graduation Show 2019, director Madeleine Maaskant announced the four nominees for the Archiprix Netherlands. The nominated projects were selected for participation in the prestigious prize for graduating talent from the Dutch design study programmes. The nominated graduation projects are: Nature Is Under Your Feet by Charlotte van der Woude (Master in Landscape Architecture), Het Achterhuis by Paul Kuipers (Master in Architecture), A Sense of Home by Patrick Roegiers (Master in Architecture) and The Battle of Amsterdam by Andreas Mulder (Master in Urbanism). Visiting critic Indira van 't Klooster announced the winner of the popular vote, which was Patrick Roegiers with his graduation project A Sense of Home.

The Archiprix award ceremony took place online on 26 June. Nature is Under Your Feet by Charlotte van der Woude won an ex aequo first prize. In addition, Archiprix Netherlands awarded honourable mentions to two projects by Amsterdam Academy of Architecture alumni: Het Achterhuis by Paul Kuipers and A Sense of Home by Patrick Roegiers.

ARCHIPRIX NOMINATIONS

The Amsterdam Academy of Architecture nominated one landscape design, one urban design and two architecture projects for the annual Archiprix Netherlands competition.

Text   JANNA VISSER-VERHOEVEN

Nature Is Under Your Feet—Discovering London's Underground Landscape as a Potential New Nature

Student Charlotte van der Woude
Master Landscape Architecture
Graduation date 8 July 2019
Mentor Mirjam Koevoet
Commission members Ricky Rijkenberg, Paul Achterberg
Additional members Philomene van der Vliet, Peter Lubbers

From ancient times, people and their surroundings have been closely connected. When settling down, man has always sought strategic spots in the landscape to build a home. Topography, water, forest and underground would give people different opportunities for finding a good spot to live in, which resulted in particular uses of the landscape. Restrictions and chances in terms of resources and climate actually shaped the first settlements, resulting in not only knowledge of the place, but also a sense of belonging and identity.

Today, some of these settlements have changed radically and turned into cities that are ever growing. The connection to their underground and original landscapes has become blurry and can hardly be experienced. Layers of concrete and asphalt cover the landscape's rivers and soil. Not only does this affect how people feel and experience the city, but also how our cities respond to issues like climate change, the degradation of biodiversity and water-related problems.

As a result, it seems that we need to travel far to find 'nature'. But what if we look more carefully? Is nature still present? Isn't it just covered by all these artificial city layers? Is nature closer than we think, and could it be hidden beneath our feet? Can we find opportunities in our underground landscape? And if so, can we try to implement these hidden structures better in the city?

In order to find answers to these questions, this project investigates the city of London, where many of the former tributaries of the Thames are now buried beneath layers of concrete. Like many other cities worldwide, these streams were the original reason that people settled here. Because of heavy pollution in the industrial era, these rivers have been turned into underground sewage systems that date back to the Victorian era. This graduation project tries to discover if this hidden structure could offer a chance to create a 'new nature'. One that cannot survive the harsh city life aboveground, but could facilitate a whole new type of habitat: a fragile nature to be discovered beneath your feet.

A river landscape with side brooks.

Occupation along the side brooks.

Industrial use of the water: canalisation.

Covered streams with the city on top.

A potential new nature?

General growth of cities along rivers: tributaries turned into underground sewage systems.

The 12 underground former Thames tributaries marked in red.

The former River Fleet and today's Fleet sewer as a case study for a potential new underground nature.
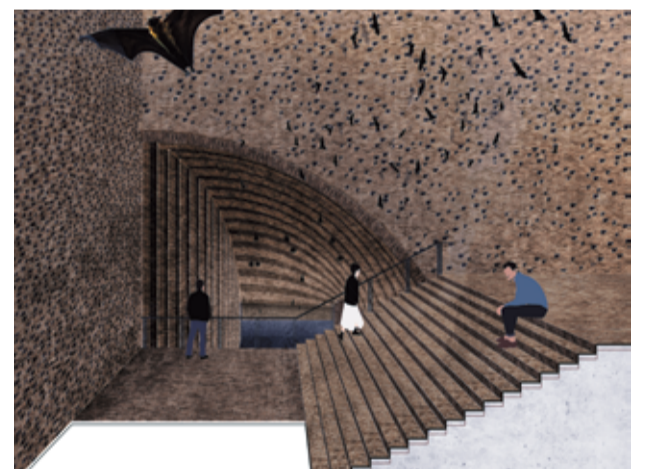

One of the three chambers that respond to the tidal River Thames.

Ray Street: the Fleet sewer jumps down 1 m due to its location on the Thames River terrace.
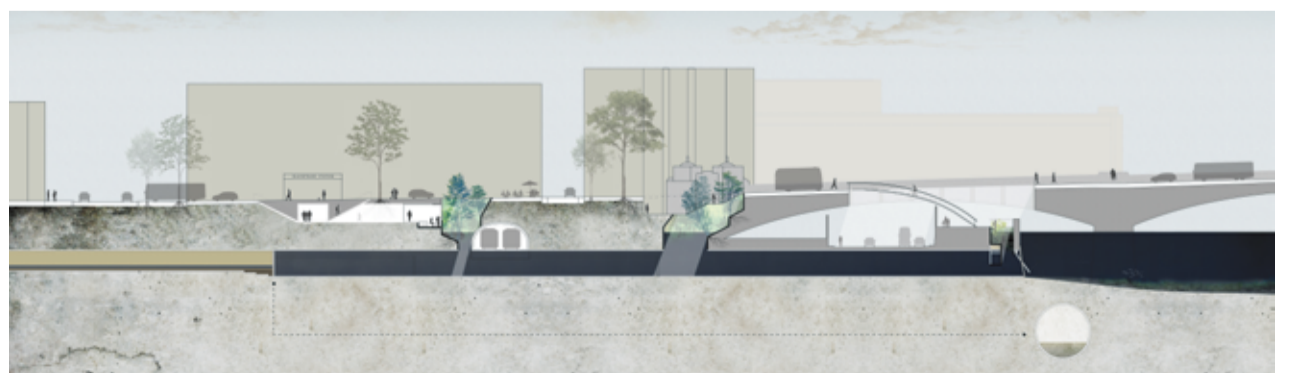

The Fleet sewer is extended to the city level, creating an artificial cliff that can be a habitat for species such as ferns and moss.

Blackfriars: the Fleet sewer will be reconnected with the Thames, letting the tidal river flow into the city.

Holborn Viaduct: the Fleet sewer will be linked to one of the historical houses, creating connections between three city levels.

The new bat cave and fauna wall connecting the Fleet sewer, the city level and the bridge level on top.

33

The current logistics system by order of intensity.
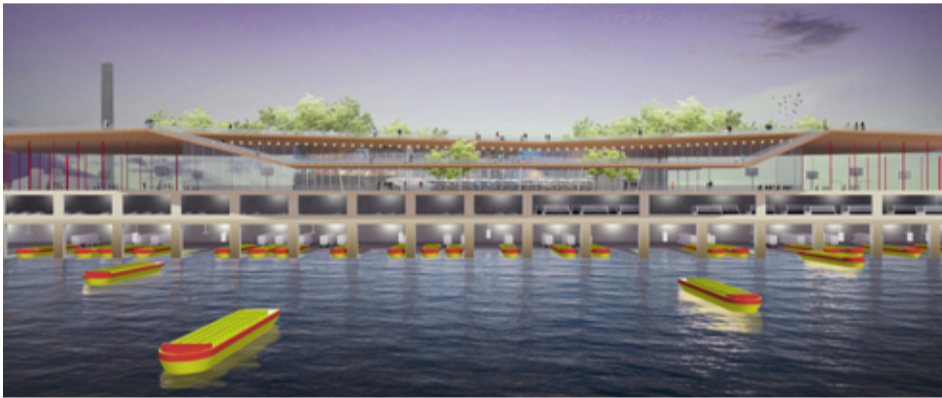

The proposed system with three modalities: lorry (yellow), cargo ship (blue) and small-scale electric transport (orange).

New urban design for Coenhaven and Vlothaven with integrated city logistics hub.
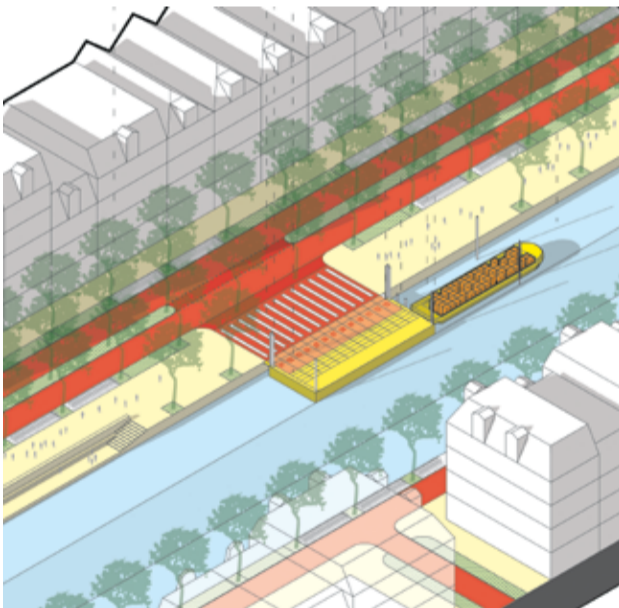

Transporting goods by water clears space for wide bike paths, pedestrian zones and more green in the streets on land.
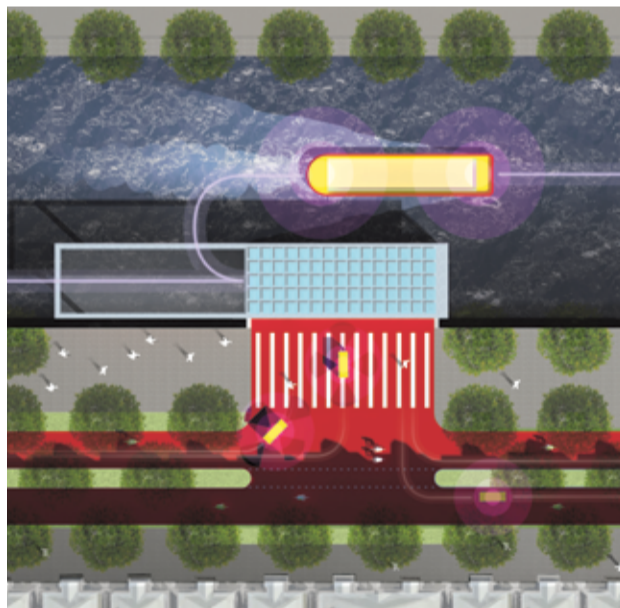

Front view logistics city hub with space for shops, sports facilities and a publicly accessible park.
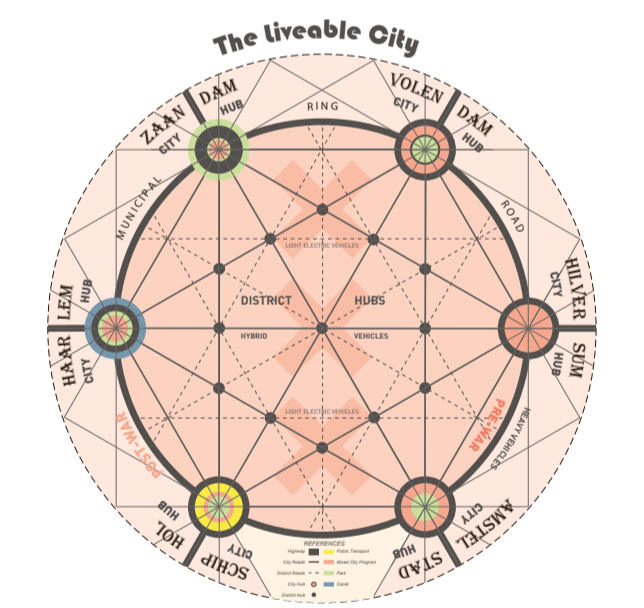

View from the city hub over Haven-Stad's largest harbour basin. The park is part of a public route.

In the city centre, the system change also clears the quays. The city reorients on the water.

Birds'-eye view of a city hub in the city centre. Wide bike paths, promenades and waterfront seating are standard.

The system can be used in other cities as well. The regulation of traffic flows is the leading principle.

The Battle of Amsterdam—A Liveable City with a New Method of Urban Distribution

Student Andreas Mulder
Master Urbanism
Graduation date 10 July 2019
Mentor Martin Aarts
Commission members Ton Schaap, Marc Verheijen
Additional members John Westrik, Martine Vledder

The liveability of cities is under pressure across the globe. The centre of gravity of the economy is shifting, changing an economy of production into an economy of services. This has led to a global drift to the city. The so-called knowledge economy that is mainly found in urban areas makes cities even larger, busier and more popular. United Nations predictions say that in 2050, around 70 per cent of the world's population will live in cities. If no action is taken, this increasing urbanization will lead to more crowded cities, larger housing market shortages, higher CO_2 emissions, more traffic congestions, logistical problems and mass tourism, and a decline in public health.

The quality of urban life is under pressure and this is a generic problem that affects all of the cities in Europe. Solving this problem requires a new perspective on the city that is based on trends that forebode a perceptibly more sustainable and future-oriented lifestyle. Today's cities function as well-equipped, nearby living rooms for local residents, sport a booming bike culture with car ownership in decline and public transport use on the rise and resonate an ever-louder call for a green and healthy living environment. To facilitate this sustainable lifestyle, cities need individual solutions.

In Amsterdam, the answer is in a changed urban distribution system. The pre-war part of Amsterdam was built for and dimensioned on horse-drawn carriages, but today's city is crisscrossed by large, heavy lorries. They cause high CO_2 emissions, noise pollution, traffic accidents and material damage to quays and bridges, which all involve high costs. The situation is likely to deteriorate: logistic activity is anticipated to increase by about 400 per cent worldwide. Amsterdam's current infrastructure is unable to meet such demand and cannot facilitate the liveable city of the future.

My design is based on a system change in the way goods are distributed in the city. Transport is shifted from land to water; material flows use transport, from coarsely-woven to fine-meshed (lorry – cargo ship – small-scale electric transport respectively) directed by logistics hubs. These logistics hubs, subdivided into city hubs and district hubs, control the logistic flows and thus the liveability of the city. This new method of urban distribution will facilitate the development of the liveable city of the future as well as create space for the sustainable lifestyle of the twenty-first century.

Het Achterhuis—A Place to Hide for Edward Snowden

Het Achterhuis (The Secret Annex) is a spatial manifesto to address the importance of transparency, a fundamental digit in our democratic system. It's a place for Edward Snowden, who revealed important information about how governments and corporations are monitoring the people and stealing their data in order to manipulate it. It forced him to run. He ended up stateless in an asylum outside his own society. Time and again we see that people who fight for openness have to encrypt themselves; running and hiding, or even worse, losing their citizenship.

Het Achterhuis is a place to hide for Edward Snowden in Amsterdam, which, according to Russel Shorto, is one of the most liberal cities in the world. Based on this paradox of revealing by hiding, I've started a mass versus void study. It's an architectural tool to research the interrelation of spaces. The design aims to avoid a legible organization of spaces, which would have been the most obvious choice when we think about transparency. It rather tries to confuse by introducing a mystery in the spatial order.

Het Achterhuis is a labyrinthic configuration of spaces. It refers to the strategic function of the labyrinth to confuse, as well to its ability to entertain and reflect. It reinterprets a typical Amsterdam typology and re-enacts the internal gardens of the seventeenth-century canal belt as a place to hide. The paradox of revealing by hiding demands an ambiguous place. It can never be a single shelter for the individual, who, in the case of Snowden, serves a public debate. The place functions as a 'server' in the community. It simultaneously protects the individual and makes connections in the collective.

Het Achterhuis functions as a firewall for Snowden, as a server with public programmes and as a gateway for passers-by. That means that the inhabitant becomes a host for public events in the private realm. At the same time, the structure adds a new space to the city: a cryptic pass-through in the urban fabric. Het Achterhuis hides and reveals at the same time.
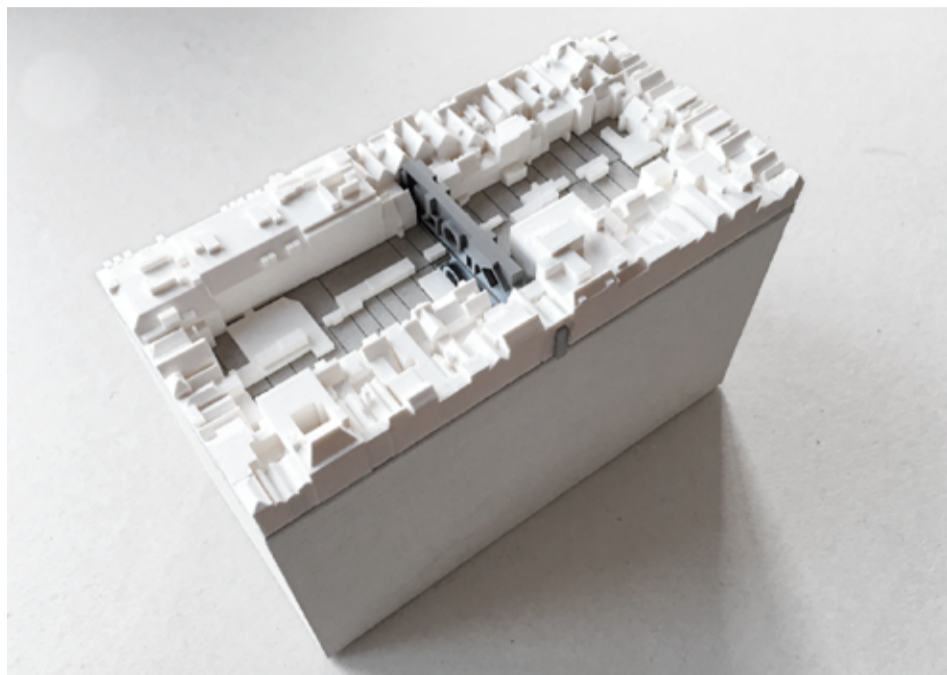

Connection. An elongated Wall of Rooms in the middle of an Amsterdam urban block, both building and alleyway, both wall and park, both dwelling and city.


Interfaces (façades). Het Achterhuis (the rear house) intersects the Voorhuis (the front house) and manifests mysteriously on the canal side. The public entrance is just around the corner on the right.
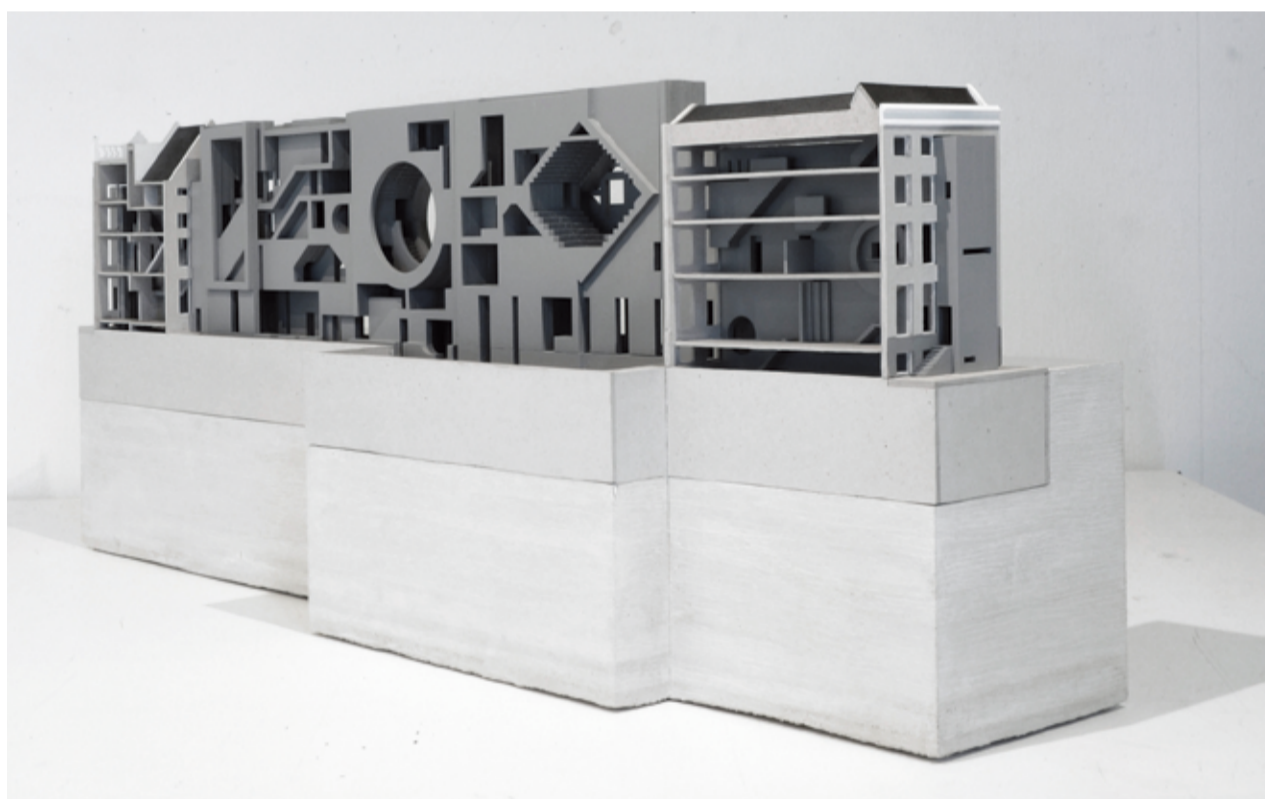
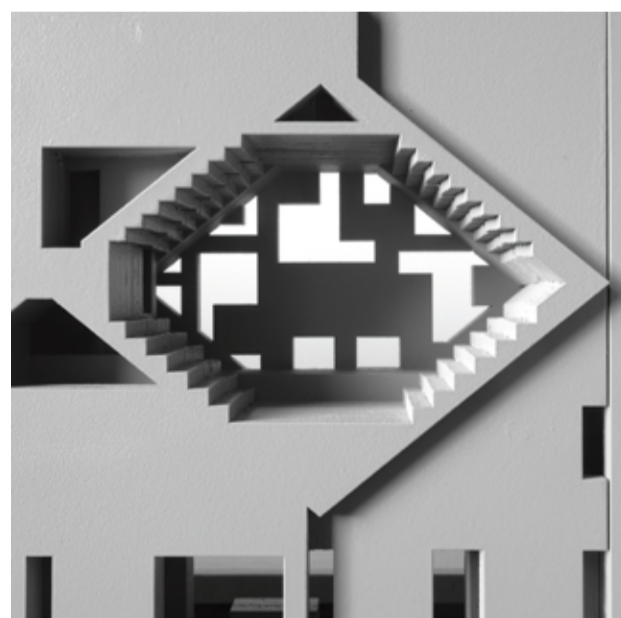Model. Het Achterhuis as a connecting building between Herengracht and Keizersgracht. Besides a dwelling for Snowden, it contains a number of public programmes.
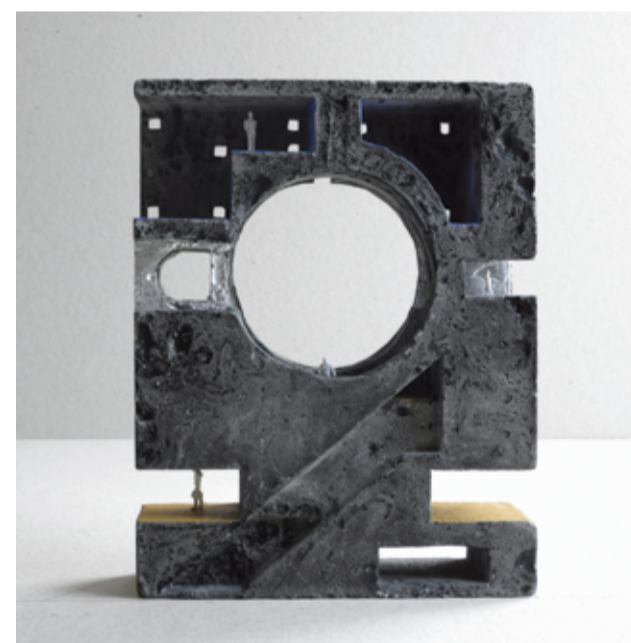
The Leak (Panorama Room) is the central space situated on the longitudinal axis of the courtyard garden.
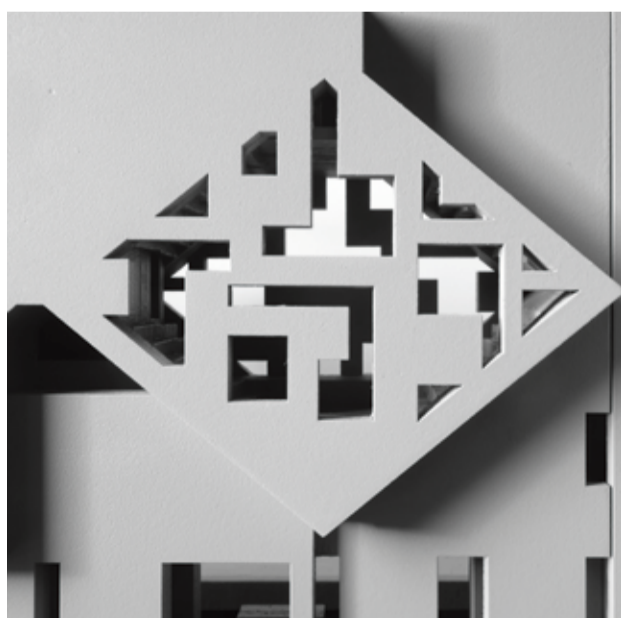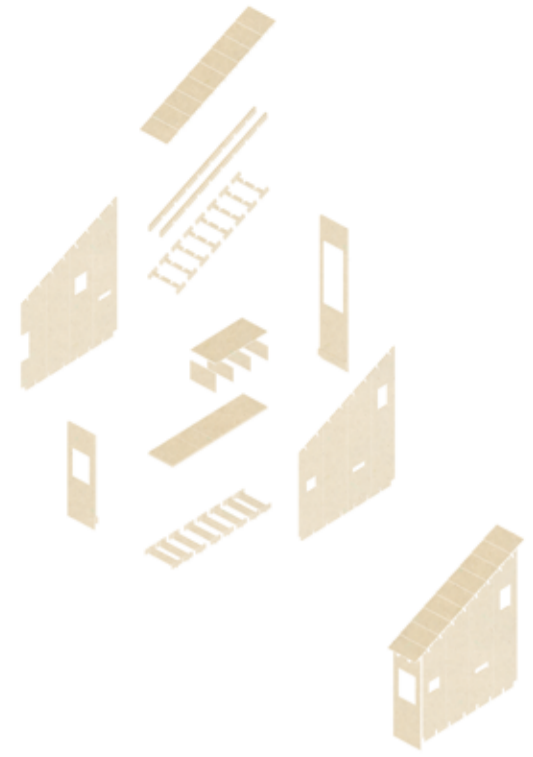

Forum interface.

Forum cross section.

Forum Perspective. This is the place where the public and the main resident can enter into debate.

The homeless network. This includes all the different functions that the city provides for the homeless. It is a fragmented network.

The Bedsteeg. The cardboard elements are modular and interlock. They are treated to resist wind, cold and rain.

Model 1:20. A spatial study into the atmosphere in narrow spaces in which height is used as a spatial element.
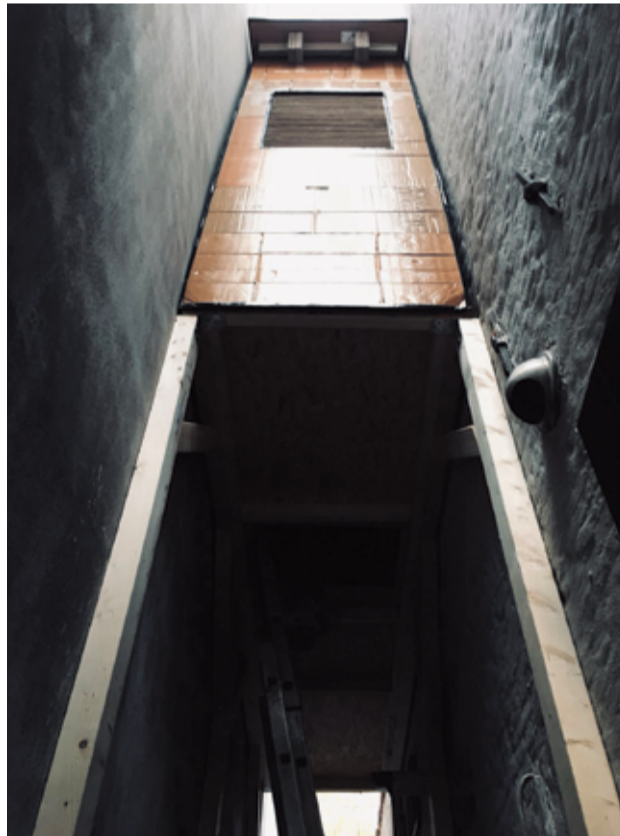

Cardboard processing. Gluing and pressing leftover cardboard creates a strong building material.

Construction process. Family, friends and local residents at work in the alley, using narrow scaffolding to assemble the Bedsteeg.

The Dapperkeuken. This kitchen on the Dappermarkt uses leftover food from the market to prepare meals for the homeless.

The Bedsteeg. A bedroom in the Jordaan made of leftover cardboard. Installed at an elevation between the alley walls.
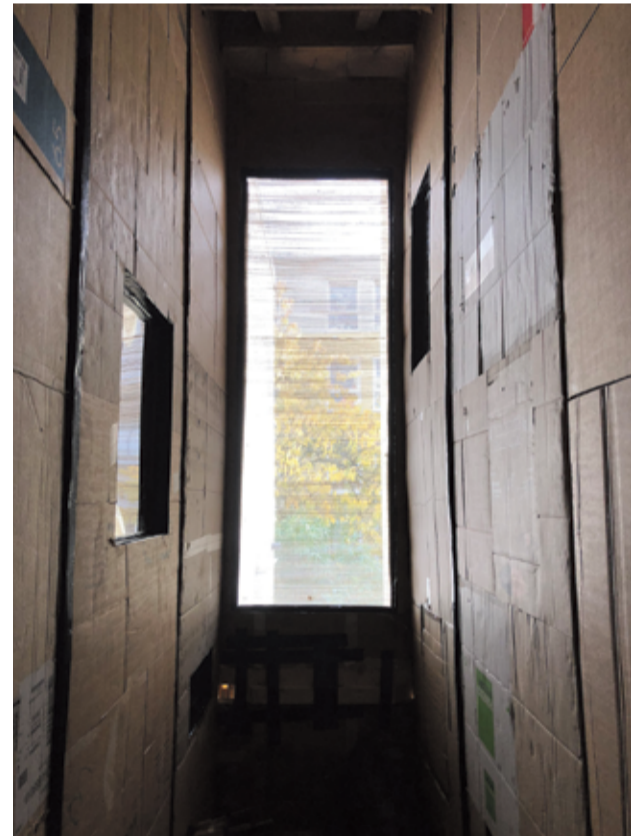
Interior of the Bedsteeg. Windows made from layered corrugated cardboard function as filters that allow the light inside.

A Sense of Home—An Opportunity to Improve Social Networks by Making Use of In-between Spaces

Student Patrick Roegiers
Master Architecture
Graduation date 27 February 2019
Mentor Machiel Spaan
Commission members Lada Hrask, Merijn de Jong
Additional members Winfried van Zeeland, Albert Herder

This project has evolved from the question of how and when someone feels at home. How does this work for the homeless, who don't have a dwelling or a home? I play my part as an architect by putting social problems on the map and looking for spatial solutions. The number of homeless people in the Netherlands is growing, although the country presents itself as a welfare state. As long as the urgency of this problem is not felt sufficiently at the state level, the only alternatives are bottom-up ones. But what is it the homeless need?

To investigate this, I lived on the streets of Amsterdam for a week. One of the most important insights I gained was that homeless people feel at home in their neighbourhood, but regret that there are no rooms in this 'home'. Their living rooms, bedrooms, kitchens and bathrooms are in scattered locations across the city, like a fragmented network. This forces the homeless to travel to different places inside and outside the city, which causes stress, unrest and physical suffering. The city has plenty of unused spaces and residual flows that can be used to facilitate the everyday life of the homeless. I started building two rooms in the neighbourhoods that most needed them: a kitchen on Dappermarkt called the Dapperkeuken and a bedroom in the Jordaan called the Bedsteeg.

I built the rooms using waste as a basis. The Dapperkeuken uses leftover food harvested at the Dappermarkt to cook meals. The Bedsteeg is constructed from collected cardboard, pressed and treated like an innovative modular building material. I conducted these experiments with the help of family and friends. The actual construction of a spatial intervention has great merit and connects people at the local level. Local residents had doubts in the beginning, but committed and became part of the project during the process.

Today, the role of the architect and the making of architecture are subjects of critical discussion. This project shows that architecture is much more than just building. If you listen, look and work together, architecture is not a goal in itself, but a socially connecting element.

BLURRING BOUNDARIES

Indira van 't Klooster, director of ARCAM (Architecture Centre Amsterdam) reflects on the graduation projects presented at the Graduation Show 2019. This article is an edited version of an eponymous speech that she gave at the opening of the show.

Text   INDIRA VAN 'T KLOOSTER

Indira van 't Klooster addresses the graduates.

Photo Inge Hoogland

The graduation projects presented at the Graduation Show 2019 are the results of years of training, experimenting, trying, trying again, trying harder, trying differently, killing darlings and epiphanies. It has been an honour to dig deeper into the graduates' minds and ideas.

This article's title is 'Blurring Boundaries'. This has almost become a cliché in our fields of expertise, and many professions use it, but in marketing, blurring boundaries refers to an exploration of the changing dynamics in the relationships between people and brands caused by technology. Blurring boundaries means people are becoming more like brands, and brands are becoming more like people.

For the purpose of this article I'd like to replace the word 'brands' by 'living environments'. So, blurring boundaries is the changing dynamics between people and living environments, caused by the effects of a very fast-changing world.

It's interesting to see how the borders between the Academy's three disciplines (architecture, urbanism and landscape architecture) are blurring further. This is partly the result of school policy. Architecture as a discipline has always been very invasive, arrogantly claiming rights in the other disciplines. But in this years' edition, we have seen landscape architects doing architecture, for example in a plan for reactivating forgotten underground rivers in London, in another one that proposes a complete integration of trees and buildings in Brussels, or in yet another that reappreciates the Amsterdam canal system by taking reuse and circularity to the scale of the city. This is a very fruitful means of innovating the disciplines and adding richer, multidisciplinary qualities. But, judging by this year's Graduation Show, the blurring goes beyond that.

Many projects provide serious answers to serious questions. They relate to real problems like democracy and freedom, slavery, tourism, circularity (to some extent), homelessness, housing for both the elderly and the young and, more importantly, students have combined topics, means and skills. The best projects combine craftsmanship, innovation, a multidisciplinary approach and a strong personal statement.

It's striking that many projects are derived from personal experiences, history, culture or emotions.

The Academy's study guide states that the study programme poses different questions to students. What kind of designer would you like to become? Which position would you like to adopt in the profession? Which responsibility would you like to take as a designer? Many students have personalized these questions. What is the most urgent topic for me, how can I start from my personal experience and how can I scale up to society? It seems that many students don't have the ambition to save the world, but that they want to make a self-confident assessment of the limited tools and skills that are available to them as a designer.

It's also interesting to see how some students from abroad have implemented their 'Dutch' skills into their hometown or country, for example in an urban plan for the Warsaw river embankments or Grodzka Island, both in Poland. Others implement their cultural background into a location in Amsterdam, such as a cultural centre in Amsterdam Noord. In both cases, the results are rich and refreshing. Personal fascinations are also very visible in the design for a rehabilitation centre for injured dancers, millennial homes, or a new type of farm for the elderly. This last project is a sensitive design for farmers who have to leave their land. As the arts and design academies have shown earlier, 'empathy' is going to be a big thing in design, also on the scale of a building or city.

The diversity in the graduation projects is the result of an Academy policy that doesn't believe in 'making school', but promotes the personal development of the individual student. I think this is a good thing, but in the best projects two more elements are added. First of all there's the notion that any designer, whether in architecture, landscape architecture or urbanism, must relate to the existing fabric. It must add to the city – not take something away. We can no longer design a valuable thing that means the disappearance of another valued quality in the city. And the second notion must be that in these times that pose so many urgent problems, personal fascinations are fine, but form and aesthetics are not the only answer, or at best only part of the answer.

Another observation is that many projects seem to deal with leftover spaces or neglected people. Quite a few projects focus on this. In particular, the Krasnapolsky-study is a very thorough and intelligent reconstruction of the famous Amsterdam hotel's development history over the centuries, resulting in all sorts of forgotten leftover spaces that can be reactivated. The same can be said of the design for the Institute for Slavery, which has also found a perfect leftover spot in the overcrowded city. The projects #Architivism and A Sense of Home both show a keen eye for locations that allow for the accommodation of people with little or no money. These projects all show a certain modesty. The starchitect with his one-streak brilliance has long left the proverbial building.

This is also true of reuse or circular projects. To take the existing situation as a point of departure and solely focus on the possibilities of the location and the needs of its users needs a different design approach than usual, and some courage too.

Leftover spaces can also be very polemic. This is evident in the design for the Rembrandtplein, which provides space for locals and bans tourists. If anything, this project shows how claims on the city can sometimes be really contested and how Airbnb and low-cost holiday flights disrupt everyday local life. Secret routes or access for locals could add a layer of insiders' knowledge to the city.

Leftover space can also have a political aspect, as is the case in a House for Edward Snowden. Apart from its specific intentions, it's tempting to view this design in the light of the blurring boundaries between public and private. Not only in the framework of space-related issues, but also on a private level. Students today are increasingly aware of the various roles they play and the various personalities they may adapt during the day and the night. In social media we are different than at work, at home we are different than when at festivals. We may soon need houses to accommodate our various avatars.

And so, going over all of the plans, two things become clear. This year's designers are very much connected to the signs of the times, deeply connected to the now. And a foreboding of the continuing blurring of boundaries on all levels, necessary to adequately address current and future problems.

37

The Zestien Eikenschuur in Berlicum by Hilberink Bosch Architecten. An old walnut tree stands in front of an end façade clad in bark-covered concrete.

THE AGE OF TIMBER

During the Wood Symposium held at the Academy of Architecture in Amsterdam, several speakers argued for the use of more wood in construction.

Text   MACHIEL SPAAN
Photos   THOMAS LENDEN

View of the farm side.

EDUCATION

'Only when one can observe and study a building as part of a larger group of comparable buildings, will one's findings be informed by the bigger picture and thus be more meaningful.' – Klaus Zwerger in *Wood and Wood Joints*

In a distant past we built our houses from wood sawn from the trees of nearby forests, or from trees the rivers carried to us from German and Swiss forests. Architects and carpenters were one with the grain and hardness of all kinds of wood. Woodworking skills were passed on from master to apprentice. In our post-war efforts to rationalize construction, we ended up in a world of concrete. Building traditions, skills and knowledge of wood gradually disappeared; woodworking techniques were no longer developed. Now that the climate debate is catching up with us, it seems it is time for a change. Dutch architects advocate the use of much more timber in construction. Timber is made available to us by nature, it stores CO_2 and provides a healthy indoor climate. In addition, timber structures are easy to assemble and can be disassembled and reused. How practicable is this idea of building with timber to the concrete-loving building sector of the Netherlands? And what is involved in this seemingly simple shift from concrete-oriented to timber-oriented thinking? We will have to renew timber applications and constructions to make them suitable for today's circumstances and regulations. And how can traditional knowledge contribute to this new step towards an 'Age of Timber'? These were the questions that arose during the Wood Symposium that was held at the Amsterdam Academy of Architecture on Friday 22 November 2019. The four speakers presented four perspectives that gave the attendees plenty of food for thought.

During an impressive argument, Klaus Zwerger of the University of Vienna showed that in timber construction, innovation is of all times. It is a consecutive and continuous process that involves adapting to circumstances, improving techniques and availing oneself of new possibilities. Development processes in the Dutch timber construction tradition came to a standstill some 70 years ago. Timber construction and knowledge of wooden constructions and connections were no longer passed on to the next generation. Artisans with knowledge of wood properties and joinery are now scarce. Dutch engineers lack the expertise to calculate the efficient complex constructions necessary to create dimensioned and sustainable timber constructions. How can we remaster the necessary knowledge, skills and traditional methods? Is it possible to reintroduce the master-apprentice structure?

In an ecological structure, we use timber in a material-specific way: tensile forces in the direction of the grain, pressure forces perpendicular to the grain. Because of its properties, timber lends itself well to assemblage. Swiss structural engineer Mario Rinke presented smart and efficient timber constructions that can be assembled as well as disassembled: ingeniously curved trusses composed from slender, tension-loaded slats and a dome construction made of pressure-loaded beams. Bespoke steel joints ensure that the structures are easy to disassemble. Rinke compared them with laminated joists, glued constructions that cannot be disassembled and reused. Wouldn't using the latter mean: creating a new kind of 'timbery' concrete? We can remaster the knowledge of timber assembly and apply it in today's construction technology.

Where do we get our building materials? What is locally available and what can we grow and harvest on the spot? The Zestien Eikenschuur by Hilberink Bosch Architecten in Berlicum is an inspiring example. It shows that trees can provide many building materials: not only beams and planks in different shapes and sizes, but also residual wood, shingles and bark can be used as building materials. One-third of Dutch forests comprise pine trees for paper production. Two-thirds comprise oak, Douglas fir and larch; the latter two are widely used for construction. If we better manage and diversify the Dutch production, forests we will be able to extract even more and higher-quality local timber. If we earmark wood varieties for the purpose for which they are most suitable, we can handle our stock efficiently and ecologically. This way, dozens of dwellings will grow in the Dutch forests every day.

What is the best way to organize this learning process? Who has the space and time to experiment? If we want to innovate, we have to facilitate experimentation. And things may go wrong. Who will take responsibility? Architect and lecturer August Schmidt presented construction workshops with students from all over Europe in Trondheim. Students learned how to build and design with the material and playfully discovered new ways to stack, connect and span – and learned from each other's traditions. The design and construction of Schmidt's own house are experimental as well. Connections and constructions are tried and tested on the spot. His own house is a laboratory to develop timber detailing and assembly techniques.

The coming of the Age of Timber may be a matter of time, but starting it is easier said than done. Innovation requires the remastering of knowledge and skills of the material and its applications. This intrinsic knowledge belongs to the designer and the builder. We have to attune legislation and regulation to its use. Experience shows that it takes more than a decade for rigorous innovations to penetrate the capillaries of the building sector. Designers, builders, the industry, government and education can join forces to develop a new vocabulary together. Being open to new ideas helps. In Europe, there is a lot of useful knowledge about timber constructions and this can inspire and accelerate our timber construction transition. In this process, experimentation will play a crucial part. It is at the joinery works, the building site, the architect's self-built house and the experimentation site that we can pass on the craft by hand and discover the future. Not at the drawing board!

Journalist Harm Tilman listens to professor Urs Meister.

Professor Carmen Rist discusses the use of wood.

Professor Mario Rinke delivers a lecture about wood constructions.

From the inside out, the transparent walls provide an optimal experience of the countryside.

Photo René de Wit

The concrete worktop with a view of the Wamberg estate.

NEW NATURES

Students at the Amsterdam Academy of Architecture have to write two papers over the course of their studies, during the O5 and O6 exercises. In his O5 paper, Jacob Heydorn Gorski advocates the use of urban gaming for city design. He was tutored by Karin Christof.

Text   JACOB HEYDORN GORSKI

The Parliament of Plants, 2019. Based on *The House of Commons*, 1793-94, by Karl Anton Hickel.

Image Céline Baumann

'Humanism is a discourse which claims that the figure of "Man" naturally stands at the centre of things; is entirely distinct from animals, machines and other nonhuman entities ...'[1]

INTRODUCTION

In 2008, Ecuador became the first country to recognize the Rights of Nature in its constitution. These rights include 'the right to exist, persist, maintain and regenerate its vital cycles'.[2] In the years since, the New Zealand Parliament voted to make the country's longest navigable river, the Te Awa Tupua, a legal entity.[3] Closer to home, the Embassy of the North Sea was founded in The Hague as an experimental project to investigate how all the users of the North Sea – 'from phytoplankton to ship wrecks and cod fish' – can be given political representation in the spatial claims that humans are making on the Sea.[4] These examples portend a radical change in the way humans understand themselves in relation to the natural world. We are no longer, as Castree writes, 'entirely distinct from animals, machines and other non-human entities'.[5] Instead, we are finding ourselves deeply embedded in the world we live in.

This existential shift is taking place against the backdrop of a rapidly urbanizing world: 55 per cent of the world's population already lives in cities, a figure is projected to reach 68 per cent by 2050.[6] Cities are increasingly the stage for economic production, political discourse and cultural exchange. They are also increasingly the site of human and natural-systems conflicts, from flooding to air pollution. As such, there is urgent need to re-examine forms of environmental representation and cohabitation in cities.

This paper will explore strategies through which non-humans and humans can come into conversation with each other to construct more resilient, nature-inclusive cities. Non-human entities are increasingly important voices within cities, yet they are typically neglected in urban decision-making processes. The need for this conversation is not premised on naive idealism, but on the benefits these conversations can bring to humans. 'When humans engage in conversation with non-humans, and through non-humans with themselves: humanity, citizenship and democracy can receive a substantial new impulse.'[7]

ACTORS IN THE ANTHROPOCENE

The developments we see in Ecuador, New Zealand and the Netherlands to give natural entities political representation is premised on the idea that we have entered the Anthropocene, a new geological époque wherein humans have become the Earth's primary geomorphic agents, shifting resources and energy flows to our ends. Although its starting point is in debate, its implications for the present are indisputably profound. Environmental scholar Jedidiah Purdy argues that in the Anthropocene, we shape the world by the way we live in it, the ways we stay warm and cool, the ways we get our food, and the ways we move around or house ourselves.[8] The Anthropocene has an insistence on human agency and the idea that we are responsible for the world we have made. The Anthropocene, in other words, is the Age of Humans.

As we enter it, we find ourselves at the cusp of a paradigmatic shift in the way we understand our relationship to the natural world. Political rule, ecology and economic systems are no longer understood as being governed by divine mandate or an invisible hand. Rather, these systems respond to and are produced by humans. This is evident in everything from coral reef acidification to the impact of fracking on groundwater. Human actions and policies have profound effects on things that have been conventionally understood as operating outside of our control. Because of this, the Anthropocene asks humans to create new spaces for agency for things that were not conventionally included in political, economic or social questions. The Embassy of the North Sea is one such example.

If we accept the premise of the Anthropocene, the question remains how we can productively bring non-humans in conversation with humans. Hiring a lawyer to represent a codfish is not a sufficient measure to address the systematic neglect of natural systems in our everyday lives. Our political and social lives do not only play out in the courtroom, after all. One promising framework is Actor-Network Theory (ANT), a theory developed in the 1980s by Bruno Latour, a philosopher and sociologist. Latour coined ANT as a concept to investigate the

Rubbish! (2015)

concept of the social, which, once powerful, had lost all meaning.[9]

It was, he observed, used to describe everything, from organizations to materials.[10] In order to give it new meaning, Latour argued that the social isn't produced by humans only or even by living things. Rather, it is located in the interaction of objects, animals and other phenomena. By interacting with each other, these actors worked to create our social world.

This idea was radical because it resisted prior assumptions about actors as well as their capacities. For Latour, a human was objectively as significant as a rock and only became significant in and through his or her (spontaneous) relationship with other actors. Humans were no longer the central beings on Earth, but co-agents that associated with actors around them. For example, a traffic jam understood through ANT is not produced by a single driver, but comes about through an interaction of drivers, cultural norms like ending work at five o'clock, policies that encourage spatial separation of working and living areas, natural systems like weather and infrastructural objects like highways. Similarly, perceptions of actors depend on the context in which they interact. When I see a mouse, my perception of it will be dependent on whether I see it in a friend's room (as a pet), on the street (as a nuisance) or in a laboratory (as a test animal). Likewise, the mouse will only see me as a friend in certain circumstances.

Despite its name, Actor-Network Theory was not intended to be a theory but rather a 'methodological orientation, a set of conceptual tools for thinking'.[11] In other words, a framework for research. As such, ANT holds promise as a conceptual tool for the Anthropocene. Its strength lies in its potential to form understandings of complicated systems and their interactions.

One example of such as a system is the North Sea. If we understand the North Sea as something that is produced through the interaction between actors (fish, currents, cargo ships, wind patterns and so forth), then by intervening in these interactions or provoking new relationships, we can change how we understand, engage and interact with it. If the Anthropocene can help make the North Sea a recognized legal entity, then perhaps ANT can help make it a recognized social and economic entity.

GAMING OUR FUTURE

The task remains, however, of bringing these actors in conversation with each other. One potential way of operationalizing the systems-framework of ANT is the participation method of urban gaming. If city-making is a theatre of social interactions on an urban scale, then urban gaming asks us to 'play out' scenarios around urban issues by using the rubric of a game with roles and rules. Urban gaming is a method for collaborative decision making around urban problems with two advantages over traditional participation. The first is that urban gaming is often able to simplify complex problems into simple terms. Instead of overwhelming participants with the complex web of political structures, financial systems and social ties surrounding urban development, gaming can ask players to role play as generic stakeholders like 'the developer'. The second advantage of urban gaming is that it allows for a low-risk, idea-generating environment where players can propose radical solutions.

Despite this potential, urban gaming has more often than not examined urban issues from an anthropocentric viewpoint. *Rubbish!*, for instance, is an educational game for policymakers and designers that addresses Bangalore's waste crisis by assigning each player the role of managing their own waste collection centre.[12] The game ends if players fail to prevent the local landfill from overflowing. While instructive, this game does not develop a critical understanding of waste and the role it plays in cities. Waste is simply an inevitable human problem to be solved. The potential of this type of gaming as an educational and policy tool is limited.

Using urban gaming in the context of the Anthropocene promises to encourage a more critical understanding of urban problems and create space for exciting solutions by involving natural systems and non-human actors. Gaming can reveal waste not only as a human issue, but as something that is inextricably connected with regional ecological networks and resource flows.

These frameworks have already been thoroughly developed in academic circles. *Geographies of Trash*, for example, is a research by design book that challenges our understanding of trash by examining it across different scales and speculating on alternative strategies, rituals and ways of imagining trash that reclaims it as 'matter in place'.[13] *Botanizing the Asphalt: Politics of Urban Drainage*, in addition, understands wastewater as a critical connection between urban and natural systems and imagines new political and ecological frameworks for dealing with drainage water in cities.[14] These examples show the potential of how a wider scope of investigation can lead to radical new forms of understanding (and by extension solving) complex issues affecting cities.

However, these new understandings of urban issues have yet to be investigated in the context of urban gaming and to be implemented in urban policymaking agendas. Doing so has the potential to expand the tools at use to form decision making for city officials and to provide a creative impulse for the designers who make the city. What is more, it has the potential to enrich the city as it is lived in by all its actors and to understand environmental threats to cities as opportunities in disguise.

What could such games look like? For one example, the city of Rotterdam is expanding along its industrial waterfront. However, current visions for the city are the result of 'business as usual' and constructed largely in line with the agendas of city officials and developers. The visions ignore the multifaceted history that the city has with its riverfront, from tidal nature to industry to recreation and residence. They also largely ignore the potentially rich ecological connection between the city and the river. One way to reimagine the development process would be to develop a game in which policymakers, residents, cultural organizations, developers and ecologists link human and non-human actors to anticipated development on the site, reframing this development as an opportunity to reimagine unorthodox coalitions and new forms of cohabitation and co-creation between non-humans and humans.

Another potential application of this gaming would be closer to home, on the IJmeer to the east of Amsterdam. This is the largest freshwater inlet in Europe and vital to migrating birds. However, due to the construction of sea defence systems, the brackish ecosystem has been disrupted, resulting in a water nature that is largely dead. The system has only been handled in a way that meets the immediate needs of humans. But by bringing in non-human actors like water fowl, aquatic plants and the silt that collects on the waterbed, there is potential to re-envision a new future for the IJmeer. Small-scale intervention tests can 'ask' animal actors to participate directly and choose their preferences of soft shorelines and water depths, so that the game takes place *in situ*. Short-term designs can set the stage for longer-term impacts on the ecology and recreational use of the sea. Human and non-human agendas can transform the IJmeer into a rich, dynamic resource and point of pride for the Netherlands.

CONCLUSION

These examples show in brief the potential that urban gaming has as an educational and instrumental tool to reflect on and act within our enriched, Anthropocene understanding of the world. In particular, urban gaming stands to benefit the policymakers and designers who shape the city by holding them accountable to actors who are typically voiceless in urban development decisions. In understanding the Anthropocene within the framework of Actor-Network Theory, urban gaming takes seriously the notion that the city is a stage of social interactions and urges its players to imagine new types of interaction between humans and our environment. It rejects the notion of floods, heat stress and so forth as threats, but sees them as potential opportunities for reimagining the connections and interactions between actors. Even something as mundane as liquid waste can be understood in the context of drainage, ecology and public space. In turn, this understanding can lead to new and exciting political, economic and ecological frameworks that allow all actors, as much as humans, to make the city. If the Anthropocene will be the Age of Humans, then urban gaming can ask us to reflect on just what kind of humans we want to be.

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THE ART OF COMMUNICATION

At the Winter School 2020, which was made possible by the AIR programme of the Amsterdam University of the Arts, artist collective Building Conversation guided students through various experiments with different conversation techniques. Artist Lotte van den Berg, head of urbanism Markus van Appenzeller and student Luuk Koote look back during a Teams conversation.

Text   DAVID KEUNING
Photos   KRIS DEWITTE

The 2020 Winter School, which took place from 10 to 18 January, was led by artist collective Building Conversation. Gathered in the MakerSpace and in the Academy building, all first and second year students explored the possibilities and impossibilities of verbal communication using conversation. Building Conversation suggested various conversation techniques, including *Timeloop* and *Parlement van de dingen* (Parliament of Things). At the end of the Winter School, the students were asked to present their findings in a 'dialogical work of art' that experimentally illustrated the relationship between space and conversation. Lotte van den Berg, Markus van Appenzeller and Luuk Koote talk about their experiences.

DAVID KEUNING   The name of artist collective Building Conversation invokes spatial or constructive associations. What exactly does Building Conversation do?

LOTTE VAN DEN BERG   'Yes, that's right. We organize performances. We're an artist collective and we treat conversations as works of art that people create together. We call them "performative conversations". We've been doing this for five years now and over time we've developed a number of different conversation techniques inspired by existing theories and practices from all over the world. We encourage people who do or do not know each other to enter into conversations.

Having a conversation is a daily activity for almost everyone, but when you ask people for details it turns out that there's no consensus about the conditions under which these take place. You think you know what the rules are, but they're often unclear. Someone may take the lead, for example, although this hasn't been agreed in advance. We examine the effects these kinds of tacit assumptions have on conversations.

During the Winter School we first immersed the students in the work we developed over the past five years. Next, they experimented among themselves and finally, we asked them to make an intervention on the basis of a conversation and the space in which it took place. We chose the conversation techniques, the students jointly decided on conversation topics.'

DK   Can you give an example of a topic that came up?

LUUK KOOTE   'We did an exercise in which you could go back and forth in time. We were standing on a kind of measuring rod that indicated years rather than metres. This is useful for students of all disciplines. My group discussed questions like: How dominant will cars be in the future? When will building in wood really take off? If you looked back in five years, would you regret the design decisions you made earlier, or not? And in a hundred years? This way, you find different perspectives to the design choices you face in our profession.'

LvdB   'Luuk is talking about *Timeloop*. It's a conversation technique in which you're asked to look at a question from different temporal perspectives. Here the question was: How should I build? We'd asked the students questions about the dilemmas involved in advance. What do you find you care about when you're asked this relatively simple question? And yes, it was about things like motorways, waste and sustainability.'

LK   'Another conversation technique was that of the *Parlement van de dingen*. Design questions can involve stakeholders that have no say in the matter. If you gave a tree or a stone a voice, what would it say about the design challenges you're working on?

DK   Yet another conversation technique was the *Agonistisch gesprek* (Agonistic Conversation). What's that all about?

LvdB   '"Agonism" is a term that was reintroduced by political philosopher Chantal Moeffe. She writes about the democratic space as a space in which conflict is very important and in which we have to dare to confront each other. The agonistic space is the space of opposition, in contrast to the antagonistic space, which is the space of enemies. "Agonism" refers to the joint enduring of and remaining in opposition, without solving it, because it's important to see where the differences of opinion lie.'

DK   Which topic was discussed in this setting?

LvdB   'The topic was "civic participation in new-construction projects". The proposition was that this should be abandoned as soon as possible because it's a farce staged by policymakers who only pretend to involve people in the decision-making process, which ultimately leads to disappointment. The opposite proposition was that participation should go a lot further, that citizens should be considered full co-creators and that they ought to get paid for their involvement as well.'

DK   Are you also looking to draw conclusions in these conversations? I mean, that's quite an opposition!

LvdB   'Our work isn't about conclusions. We want to raise people's awareness about the way they talk and could talk differently, by examining ways to think about topics and listen to other voices together. As a result, people make different choices both individually and collectively. The way we conduct conversations makes mutual relationships visible. Who is leading and who is following? What happens to me in a conflict or when I am challenged? Should I avoid that or face up to it? We try to leave the beaten track and have different kinds of conversations.'

DK   During the evaluation, you said this was the first time you'd worked with a group that was this large. How did that go?

LvdB   'The collaboration was very inspiring. The participants were very diverse, coming from different countries. The group was committed, the students showed engagement. What we offered was new to most of them.

Sometimes we heard people wonder: "Why are we doing this?" But I also heard: "This is actually really practical and it does in fact pertain to my work."

Architects, urban designers and landscape architects design the physical space, but in doing so they also shape the social space. Every decision they make impacts the way people meet and talk to each other. Students gained new insights because they experienced this relationship between physical and social space so very explicitly.'

DK   Luuk, what's the most important thing you learned at the Winter School?

LK   'When I heard what we were going to do, I thought: this could be a bit intimidating to some participants. You have to show yourself and be vulnerable. I found it interesting that in any conversation, there is someone dominating. Someone always has more knowledge than the others, or greater interests in something. The Winter School made it clear that you don't always have to accept this and that you can also choose to go back one step, so have a conversation about conversation techniques first, before you talk about content.'

DK   And Markus, what's in this for you as an urban designer?

MARKUS APPENZELLER   'When we thought about the Winter School in advance, we saw that this was something that was lacking in all three of the Academy's study programmes. We learn to design, and we learn related technical skills. But the course doesn't address social and communication skills very often. At the same time, I see that it is extremely important that you can communicate well and that you can sense how processes are developing. You have to understand people's motivations and you have to be able to moderate and know how to get subjects on the agenda.

Mastering these skills is part of the growth process that any urban designer goes through. How can I reach decisions with a large group of people? In urban design practice, the groups are becoming larger and larger. Architects and landscape architects also have to invest more and more time in their communication with stakeholders. We need to train for this. The spoken word can have a huge impact on the way you do things and the results you achieve. That's why we wanted to do something entirely dedicated to the spoken word and the social interaction that goes with it. And that's how we ended up working with Building Conversation.

That's the background, more or less. It's important that you learn to communicate in different ways; not only in your everyday work environment, but also in a training situation. Winter School conditions work quite well, because you don't have to focus on content at the same time. When you're working on a project, it is always about the content and communication is a means to an end. During this Winter School, communication was a goal in itself. That really makes you think about it. Some conversations really touched me. It's still in the back of my mind all the time. What exactly did we do and experience during the Winter School? Shouldn't this be part of our programmes in a much wider sense?'

LK   'What Markus just said struck me, that in the field you only do this when you need to. We don't practice communication as a skill in itself. It's been good to be able to practice without being responsible or being held accountable for anything.'

DK   A Laboratory

LvdB   'That's exactly how we wanted it to be. And referring to what Markus just said: sometimes it's like conversation is irrelevant. But actually conversation, or the exchange of words in an e-mail for example, is an incredibly important building block of everything we do: work, the personal contact we have with others. This is often underestimated. Conversations are almost always about content and not about the circumstances under which they take place.

For example, imagine someone carrying out a wonderful monologue about the abuse of power while only they are in the spotlight and only they are on the microphone. If, at the end, someone from the audience were to say that they feel powerless in such a constellation, this would constitute an actualization. The event would no longer be about power as an abstract concept, but about raising awareness of the power structures that are present at a given moment.

Or take the conversation we are having now, through Teams. My Internet connection is flawed and I've already missed a couple of fragments. This greatly impacts who we are together, how we react to each other and the content we create. If you'd only read this conversation at the level of the words we are saying, you'd be missing a big piece.'

DK   Some conversation techniques, such as those used for expert lectures on specialist subjects, have developed and proven themselves over a long period of time. Why would you want to question these?

LK   'Because it teaches you something. Let me give you an example of the way this worked for me in the past week. I was in a group of students and we'd agreed to build something without talking to each other. We hadn't decided in advance what it was going to be. At one point we just started.

We worked for three days on what we all thought was going to be a *Gesamtkunstwerk*. The building material was chicken wire. After one or two days, people began to play certain parts. Some people, for example, started cutting chicken wire for everyone. Other people took the lead. It also turned out that some people liked to make adjustments to things other people had made, which in some case upset the original makers. So this teaches you that in a situation like this, people start searching for their role, asking themselves how they can be relevant to others.'

DK   Which part did you play?

LK   'I was frustrated more than anything else. I like to talk. It was quite hard not to. Besides, using chicken wire was quite complicated. It doesn't build well. In the end we'd made something, but a couple of people knocked it down again. When I wanted to express my frustrations about that,

I couldn't. But we had good times too, when things went well. It was really special. Afterwards we sat in a circle. We'd agreed to keep diaries recording what we'd been feeling or thinking over the previous days and we read these to each other. It was all very *Kumbaya*, but also instructive.'

LvdB   'It's very important to be creative about the way you speak and relate to each other. Especially in a school. It helps to look at a conversational culture as an artist, to look whether there's anything that can be done differently. In the temporary laboratory we set up, we try to pass that artist attitude on to others. This is sometimes very enjoyable, in which case it creates this *Kumbaya*-feeling that Luuk is talking about. And sometimes it's incredibly hard. Earlier we talked about having an agnostic conversation, about focusing on conflict and really feeling it. This can resonate for days. The moment you enter into something like that together, anything can happen. Which is also exciting.'

DK   This Winter School didn't lead to major fights, did it?

MA   'Not as far as I know. But it really has unlocked things, even in me. A lot of people have shown sides of themselves they would otherwise have been less likely to show, or at least in public. It was fun that everyone was in the same situation. You are vulnerable, but so is everyone else. That's why you treat each other differently. You open up more than during an informal, short conversation in a design studio or in the hallways. The fact that this was a kind of laboratory helped. Especially because it took several days. After all, it takes time to build trust.'

DK   At the end of the week the students presented their 'dialogical works of art'. What happened there?

LvdB   'A theme one group worked on for a couple of days was the awkwardness of some conversations. During the first few days we regularly experienced alienating moments, like when everyone is waiting for someone else to talk, first, or when no one knows how long a silence is meant to last, or when a conflict intensifies or someone suddenly says something very intimate. This group made a kind of exhibition of awkward moments that was open to visitors.

Another group was trying to answer the question: How can I enter into a conversation with myself and what conditions need to be met for this? They completely rearranged the boardroom. Visitors could enter one by one. And yet another group examined the properties of Internet anonymity and whether you could move these to a physical space. They made a temporary installation on the pavement in front of the Academy building; in it you could speak without knowing where your voice would end up and who would answer.

The group in the Balkenzaal investigated the impact speaking has on people's spatial relations. Together they developed a beautiful conversation technique. Participants take up a starting position in an outer ring. As soon as you say something you take a step forward, until everyone has left their initial position. Then everyone takes a few steps back to the outer ring. The participants in the outer ring are at quite a distance to each other, but in the centre everyone is close together. This also clearly showed who was a big talker and who was not. It was about drifting together and drifting apart. This group did a lot of experiments. What if someone is sitting higher up or lower down? How does direction of view affect a conversation? And they had conversations about emotionally charged topics, like the question whether veganism should be mandatory.'

DK   Just now you mentioned the fact that this interview is taking place on Teams. What effect does the present time, with its strange way of communicating, have on the way we behave towards each other? Do you think that online conversations are essentially the same as conversation that take place in the physical world, or are we having different kinds of conversations today?

LvdB   'I don't think our conversations and processes are the same, but I do think they need just as much attention. We're investigating how we talk, and how we could talk, and that's more urgent now than ever. It's important that we reflect together on what being online does to our thinking and speaking. The one and a half metre society also has its impact. We are keeping our distance, but at the same time it sometimes feels like we're getting closer, because we are keeping our distance to take care of each other. I think everyone is experiencing this in a fundamentally different way. It's important not to just let it all happen, but to look for ways to think about things together. Especially through this medium.'

Amsterdam Academy of Architecture

Lecture series C4C6 — Arcadian Anthropocene?

29 01

Markus Appenzeller,
Hanneke Kijne,
Jan Richard Kikkert,
Sven Stremke,
Eric Frijters,
Gerjan Streng

05 02

Luis Callejas,
Taneha Bacchin

12 02

Peter van Assche

19 02

Stuart Smit,
Edwin Thie

26 02

Hester van Dijk,
Reinder Bakker

04 03

Katya Letunovskaya

11 03

Thijs van Spaandonk,
Christopher de Vries,
David Dooghe,
Eric Frijters

18 03

Daniel Ibañez,
Rob Marsh

25 03

Michaël Ghyoot

08 04

Dan van der Horst,
Ingrid Luijkx,
Sven Stremke

22 04

Dirk Oudes,
Hester Koelman,
Lieke de Jong

06 05

Dirk Sijmons,
Klaas Jan Wardenaar

13 05

Elizabeth Monoian,
Alessandra
Scognamiglio

20 05

Wrap-up

wednesday 19h30

@ Amsterdam
Academy of
Architecture

LECTURES

46

ARCADIAN ANTHROPOCENE?

How can architects, urban designers and landscape architects contribute to our world in a positive sense? In the lecture series C4C6, the three research groups (Architecture, Urbanism and Landscape Architecture) posed this question under the title Arcadian Anthropocene?

Text   GERJAN STRENG

Midway through the last century, we have entered a new geological era: the Anthropocene. This is the period in which human activity is the dominant influence on our planet. Ecologic, geologic, biospheric and other conditions have been directly altered by our presence. As stated more urgently by Clive Hamilton: 'We have disrupted the functioning of the Earth. The stable environmental conditions that allowed civilisation to flourish are disappearing.'[1]

Defining a geological era is no small matter. In April 2016, after many years of debate and scientific research, the Anthropocene Working Group finally proposed the stratigraphic marker – the identifying layer in the substrate that can be found around the globe – separating this new era from previous epochs. Various starting points of the Anthropocene have been discussed, ranging from the beginning of the Agricultural Revolution 12,000 to 15,000 years ago, to the invention of the steam engine and the start of the Industrial Revolution around 1780.[2]

Instead, a much more violent event horizon now marks the official start of human domination over our planet. Our defining contribution is the *bomb pulse*, the sudden increase of carbon-14 (^{14}C) in the Earth's atmosphere and soil caused by hundreds of nuclear detonations, starting with Trinity test of 16 July 1945. Not our achievements in wealth and welfare define our era, but acts of violence and eradication. The anthropocene has this negative connotation: human activities are leading to the destruction of the planet as we know it. Our interventions have set developments in motion that effectively corrupt nature on a global and geologic scale.

ARCADIA

We have seen periods of uncertainties and rapid transformations before. Eras in which common practices have been unsettled and fixed patterns have become fluid. During the Industrial Revolution rural workers migrated to large metropolitan areas on a massive scale. Manual labour and crafts were replaced by mass production in factories. The air and water quality deteriorated because of the coal-burning industry. Many suffered from health problems.

These social and environmental changes led to a reaction from the arts. Romanticism, closely tied to the Industrial Revolution, emphasized nature over industry. Poets and painters played with chaotic compositions and idealized rural life. In classical literature of the Greek and Roman ages a similar movement can be seen. There, Arcadia represented an unspoiled wilderness. The arid, inland region of the Peloponnese, barely capable of sustaining herds of sheep, offered a counterpart to overcrowded cities. Arcadia is a paradise, a utopia without civilization, a world where man has no lasting corrupting presence.

DESIGN RESEARCH

Now, we once again find ourselves in an era of changing conditions. Our escape to an unspoiled nature, however, has been cut off: with the notion of an Earth System, it has become clear that we are the dominant force on our planet. Our traces are everywhere. As designers, we are very much part of this. Cultivating the environment is, by definition, part of what we do – from the first agricultural settlements to the clichéd primitive hut. The way we organize our landscapes, cities and buildings has a major impact. Energy and emissions of greenhouse gasses, material and waste, and access to fair and healthy cities have all become hot topics.

It seems that this affects all parts of our work and working methods. New questions arise for which we do not yet have definitive answers. How do we as designers deal with this era? How do we develop new routines? These are questions that concern the three research groups. Especially when it comes to topics that do not yet get attention from our clients or that will only come into play in the (near) future. Research by design helps us in developing essential knowledge and to determine a new position. The extent to which we can offer a perspective for future action determines our chances in the professional field of tomorrow.

Several examples of design research have been discussed in the series, ranging from research for design to research of design and research by design. Practical examples have been considered and compared analytically in order to improve processes and the impact of design. New ideas and hypotheses have been tested in practice giving rise to learning-by-doing. Speculative, and even activist, examples of research by design deal with social issues and support the position of the designer in this.

The speakers in the series have reflected on the potential role of designers in this millennium. They have shown positive examples, glimpses of what an Arcadian Anthropocene could look, feel and be like. But most of all, they have shown how research can help designers regain control over their agenda.

1. Clive Hamilton, *Defiant Earth*, Polity Press, Cambridge, 2017.
2. Paul J. Crutzen and Eugene F. Stoermer, 'The "Anthropocene"', *Global Change Newsletter*, number 41, May 2000, pages 17–18. http://www.igbp.net/download/18.316f18321323470177580001401/1376383088452/NL41.pdf. Cf. Paul J. Crutzen, 'Geology of mankind', *Nature*, volume 415, 3 January 2002, page 23. https://www.nature.com/articles/415023a

ONE LECTURES

Reconciling Nature and Architecture
Emilio Ambasz

19.09.2019

Citymaking
To plan or not to plan, that's always the question
Tina Saaby

26.09.2019

Citroen Noordgebouw
Redefining an icon
Frederik Vermeesch

10.10.2019

Landscape Architecture in the Anthropocene
Dirk Sijmons

07.11.2019

Preservation & Renewal
Bauhaus and International style buildings in Tel Aviv
Micha Gross

28.11.2019

The invention of rivers
Anuradha Mathur & Dilip da Cunha

05.12.2019

Astronaut or Architect
Patrick Fransen

06.02.2020

Designing a Caribbean Hospital
Lyongo Juliana

20.02.2020

LECTURES

48

CAPITAL GAINS

On 11 February Daan Roggeveen and Michiel Hulshof presented *The Amsterdam Agenda* in Amsterdam debate centre Pakhuis de Zwijger. The book embodies the lecture series of the same name that they organized in 2018 on behalf of the Academy of Architecture.

Text   DAVID KEUNING
Photos PAKHUIS DE ZWIJGER

'Amsterdam is doing great,' said journalist Michiel Hulshof at the beginning of the book presentation of *The Amsterdam Agenda* in Pakhuis de Zwijger on 11 February. 'As long as that Wuhan virus stays away a little longer and no more lawyers get shot, things are going very well indeed. The museums have all been modernized, the North-South metro line is finally finished, at parties all my friends talk about how much the value of their houses has increased, and neighbourhoods that used to be no-go areas now feature hip coffee bars.' Unfortunately, the virus from Wuhan didn't stay away and an 'intelligent lockdown' came into force in the Netherlands on 15 March. This doesn't, however, mean that Hulshof's observations weren't true when he made them.

At the invitation of the Academy of Architecture, Hulshof and architect Daan Roggeveen organized the C4C6 lecture series *The Amsterdam Agenda* in the spring of 2018. They subsequently brought the lectures together in a book, which was published by nai010 publishers. The two men met in 2009 in the Chinese city of Shanghai and have been collaborating on research projects all over the world ever since. During the presentation they were interviewed by presenter Maurice Seleky, who called them 'the Van Kooten and De Bie of Urban Development'; a remark which caused some amusement among those present. (Van Kooten and De Bie was a comedy duo that appeared on Dutch television from the 1960s to the 1990s.)

'If you were asked to make a prediction for Amsterdam,' Seleky asked, 'what would it be?' According to Roggeveen, all world cities now face three important challenges: affordability of housing, transition to sustainable urbanism and identity issues. 'I foresee acceleration,' said Roggeveen. 'The development of housing prices and tourism pressure are themes that will become increasingly urgent. What we see happening today is only the beginning. The number of people that will come to visit this city from all over the planet is going to explode. We need to come up with new ways to deal with this.' For the time being, this acceleration has failed to materialize. After a few months of intelligent lockdown, you'd almost want Roggeveen to be right after all.

On screens, the speakers show the Great Wall Apartments in Nairobi, Kenya. The buildings are on a compound that is separated from the outside world by a high wall.

Daan Roggeveen and Michiel Hulshof being interviewed by Maurice Seleky.

WORK IN PROGRESS

The teaching model of the Amsterdam Academy of Architecture combines an Internal Curriculum and an External Curriculum. Students work on the final attainment levels of the External Curriculum with their employer. This practical component has been an essential characteristic of the Academy for more than 110 years, but its content and assessment have changed over time. The Amsterdam Academy of Architecture's professional experience coordinator Nico van Bockhooven summarizes.

Text   NICO VAN BOCKHOOVEN

The Academy of Architecture has a long tradition of combining work and study. The Academy was founded more than 110 years ago as the practice-oriented counterpart of the technical-theoretical architecture courses taught at Technical Universities of Applied Sciences. Academy students are trained in accordance with the 'concurrency' model, which embodies the concurrence of and interaction between practice and theory. Although many academies used this parallel model in the twentieth century, it has gradually been supplanted by a serial model: theory first, then practice. As a result the Academy of Architecture is an exception in the world of education, especially in comparison with architecture academies abroad; its teaching model requires constant explanation.

This article focuses on developments around the practical component over the last two decades and the influence these developments have had on the Academy's assessment of the professional experience gained by students.

Until 2004, students would put together a portfolio, ask employers to sign it for approval and submit it to the Academy. There was no curriculum that described what students were supposed to learn externally and the quality of their work was hardly ever assessed by the Academy.

In 2001, Jo Coenen called on all architecture Master programmes, including those of the six Academies of Architecture in Amsterdam, Arnhem, Groningen, Maastricht, Rotterdam and Tilburg, in the capacity of chairman of a visitation committee. This evaluation of all architecture courses in the Netherlands by a committee under the chairmanship of the then Chief Government Architect Jo Coenen produced a positive judgement for Academies in general. But the committee also recommended that academies gain a better insight into the quality of the professional experience students obtain in their work situation. Jo Coenen argued in favour of an explicit and educationally formulated practical curriculum. The result of this recommendation was that the Academies of Architecture jointly wrote an External Curriculum. Marina Roosebeek made a major contribution on behalf of the Amsterdam Academy of Architecture and, on behalf of all of the Academies, presented this Notitie Buitenschools

Curriculum (External Curriculum Memorandum) to Chief Government Architect Jo Coenen in 2004.

THE ASSESSMENT OF
PROFESSIONAL EXPERIENCE
The introduction of the External Curriculum also meant that professional experience was to be subjected to annual assessment. Submitting employer-approved annual reports (practice portfolios) and annual evaluations of their own progression, students would provide insight into their professional development in relation to the learning aims of the professional experience component.

The Academy first establishes at which employer the student works and whether they work sufficient hours in a relevant position; this is the quantitative test. For this purpose, students submit an employer-approved practice form that provides insight into the nature and scope of the office and the employment contract, the position of the student and the work they do. The theoretical (course) load of the professional experience component is the same as that of the educational programme component (the Internal Curriculum), namely a minimum of 840 hours per year. In reality, most students work 32 hours per week. In addition to this quantitative test, there is a qualitative test that looks at the quality and progress of the work done in relationship to the learning aims described in the External Curriculum. In the context of the qualitative test it is important that students keep an eye on their individual development. The Academy sees its students as starting professionals and attaches great value to self-management. Every year the students write a report in which they reflect on the work they do in practice and the interaction between work and study. This reflective report also includes an action plan for the continuation of their studies and the progress they intend to make in their work. These reports play a prominent role in their annual assessment. In addition, students create an annual practice portfolio. This portfolio is a collection of drawings, photographs, documents and so on that provide evidence of their individual development and the knowledge, insights and skills they acquired.

Some years after 2004, the first students graduated on the basis of such assessed portfolios. From

then on the Academy, handing out diplomas at the graduation ceremony, was able to prove that students had not only successfully completed the Internal Curriculum of the study programme, but that the professional experience obtained had also been of a sufficient level.

In the first years after the introduction of the External Curriculum the assessment of professional experience obtained took place 'in writing' on the basis of submitted portfolios. Students submitted print-outs of the portfolios and these were subsequently assessed. The Academy would invite a large number of professional practitioners to do the assessing. The assessors came together for an afternoon to study four to five portfolios each and assess these on the basis of the learning aims described in the External Curriculum. Doing this together, they could discuss the portfolios and develop a shared subjectivity (intersubjectivity). A major disadvantage was that there was no direct communication in the form of a conversation between assessors and students.

NEW WAY OF ASSESSING
For this reason, a different method of assessment was gradually introduced from 2009 onwards. Students present their work to a committee, in the early years containing three and nowadays consisting of two assessors. These assessors are professional practitioners as well. Every year students compile practice documents digitally and upload them for assessment in April. Practice documents include a CV, practice form, assessments from previous years, practice portfolio, reflective report and, in the third and fourth year, the results of the practice modules. The assessors prepare for the interview by reviewing the documents and reading the reflective report beforehand.

Both students and assessors highly appreciate this way of assessing. After the introduction of the interview method the Academy received nothing but positive feedback from students and assessors. Of course the current generation of students does not know any better and does not know the difference. The interview method provides a much greater understanding of the level and development of the professional experience of students. This method also allows summative as well as formative assessment, that is: the meeting is not only meant to assess, but also to coach.

Last year the formative assessment received an extra impulse: first-year students are now each assigned a personal coach (other than their mentor at work). This coach meets the students at the beginning of the year, helps them on their way and has a formative conversation with them halfway through the year.

Oral assessments have another didactic advantage. Groups of four students, preferably from different years, are assessed by two assessors. They attend each other's presentations, are stimulated to participate in the conversations and also question each other critically. In this way they learn from each other and students from the first years also get to see the work of older students.

AMENDMENTS TO THE DUTCH
ARCHITECTS' TITLE ACT
In 2012, the professional experience component underwent yet another major change. In that year, the new WAT (Dutch Architects' Title Act) came into force. Part of this amended WAT was a mandatory two-year professional experience period for all spatial designers (Architecture, Landscape Architecture and Urbanism) as a condition for registration. This took effect on 1 January 2015.

The Academies and notably the then-director of the Amsterdam Academy Aart Oxenaar made it clear that the practical experience obtained by Academy students was compulsory professional experience in accordance with the WAT. This was not at all self-evident. In the end his efforts and those of others resulted in the inclusion in the law of an exemption option with regard to the professional experience obtained by Academy of Architecture students. An independent administrative body, the Dutch Register of Architects (BA) was given the task of applying the professional experience rules in accordance with the WAT. The legislator differentiated the situation for graduates of the Academy of Architecture in the Act, which now stipulates that the BA can grant exemption from the two-year professional experience period if the extracurricular curriculum of the Academy

of Architecture's study programme is comparable in terms of design and content to that stipulated in the Regeling Beroepservaringperiode (Regulation Professional Experience Periods).

This caused the Landelijk Overleg Bouwkunst Onderwijs (LOBO) – the consultative body of the joint academies – to instruct a working group consisting of Nico van Bockhooven (Amsterdam), Ko Jacobs (Arnhem), Gert ter Haar (Groningen) and Robert von der Nahmer (Rotterdam) to reformulate the terms of the External Curriculum to ensure comparability in terms of design and content between the External Curriculum and the Professional Experience Period. The final attainment levels referred to in the Regulation Professional Experience Period drawn up by the Register of Architects in close consultation with the professional groups were used as a framework. The reason for reformulation is that in the concurrency model, the External Curriculum is part of the study programme and therefore described in educational terms.

EXISTING EXTERNAL CURRICULUM
The existing External Curriculum consists of a memorandum containing the general provisions, aims and content of the External Curriculum and the organization of the External Curriculum. This memorandum has two appendices. The first appendix comprises final attainment levels, an overview of the professional qualifications, learning outcomes, levels and level indicators. The second appendix is a transition table showing the equivalence between the final attainment levels of the Register of Architects and those of the academies' External Curriculum.

The academies have captured the professional experience component in eight professional qualifications. In doing so, they looked for a balance between, on the one hand, a specific description of what is required of the students and, on the other, a description of learning outcomes that can be applied to all three disciplines (architecture, landscape architecture and urbanism) as well as leaves room for new developments in the disciplines. The eight professional qualifications are: Positioning, Organizing, Interpersonal skills, Communicating, Enterprising, Designing, Preparation realisation phase and

Supervision, implementation and execution. These eight professional qualifications are formulated as learning outcomes, which means that they are generally expressed as knowledge, skills or behaviour. They are descriptions of what students are expected to know (Register of Architects: knowledge), understand (Register of Architects: insight) and/or be able to demonstrate (Register of Architects: skill) after completion of a learning process.

Three levels are described for each professional qualification. For each level, there are descriptions of the actions (what the students are expected to do in practice) and the products of the learning outcomes (non-exhaustive lists of products that show that students have achieved the required level). The three levels are not grades or assessments in themselves, but are meant to monitor progress during the course for the benefit of both students and assessors. During the annual assessment, assessors determine the level at which a student functions for each professional qualification and how this level relates to the level of the academic year of the student under assessment. At the end of the course, all eight professional qualifications must be of a sufficient level.

However, the acquisition of the professional qualifications is not an end in itself. The ultimate goal of the course is that students can function adequately as designers in practice. This presupposes that students have not only acquired the necessary knowledge, skills and insights, but also know how to apply these adequately and coherently in a design practice, in other words: that they have developed the ability to function as designers. Whether students have developed this ability can be deduced from the way they behave as they create their work, the choices they make, their justification of these choices and their reflection on them make this visible. Students reports on these in the practical documents and in the assessment interview. To a large extent, this determines the final judgement during the annual assessment.

GO GHANA!

In the P5O5 studio tutored by Lada Hršak, Remco Rolvink and Rachel Keeton, students produced designs for Ningo Prampram in Ghana.

Text   LADA HRŠAK
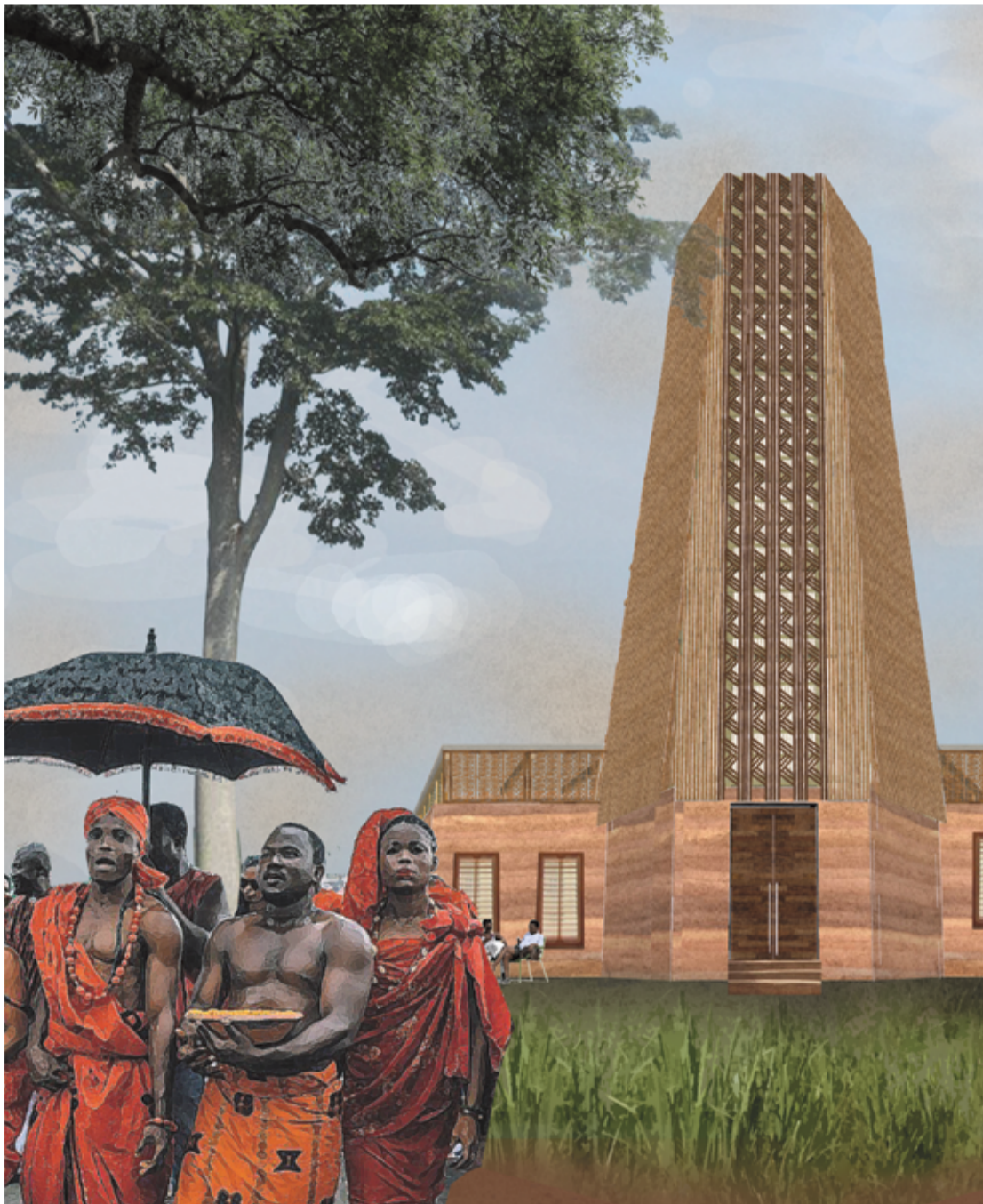
Stephanie Ete, House of Stories.

Heavy rain blinds the car windows, while we drive on the bright red dirt road in the 'outback' of Ningo Prampram village, east of Accra, the capital of Ghana. The landscape is fragrant and flat. The branches of solitary baobab trees rise towards the sky. Village children in school uniforms play around a beautiful, aged, tropical modernist school building. The edges of the roads are eroding. In fact, the whole coast is being washed away by the ocean currents. This is the area of the new Ningo Prampram master plan. The West African highway runs past its northern side. This is the city's future 'lifeline', connecting various parts of the rapidly urbanizing west coast of Africa, stretching from Abidjan via Accra to Lagos.

Ghana is the first post-colonial, independent African country. This originally socialist, non-aligned country played a paradigmatic role in the continent's modernization. Its rich history can, to a certain degree, be traced through urban development, architecture and design. Jamestown was one of the centres for the slave trade, Tema was extended with a large modernist New Town by Doxiadis in the 1960s, Ashaiman is the largest informal settlement of the region, Airport City is a contemporary International Style business district, Nkrumah Circle is the current example of traffic expertise, and Korle lagoon demonstrates the effects of waste flows on environmental pollution by the rapidly growing city.

Parallel to visiting the mentioned sites, the studio developed sensitivities to the layers of oral histories, ceremonies, textures and lifestyles, and started to speculate about the possibilities for reconnecting this diversity of knowledge to urban design. The students focussed on design strategies for the future West African metropolis, connecting the issues of the rapid urbanization of the African west coast, climate change, sea level rise and food security with the current and past community narratives, while simultaneously interrogating false dichotomies such as 'planned' and 'unplanned'. Taking the urban framework for the extension of Ningo Prampram as its subject (proposed by UN Habitat and a Dutch team consisting of MLA+, Mixst Urbanisme, More Architecture, OKRA and Fabrications, among others), the participants explored their own fascinations within the context of this site. In collaboration with a studio at the

Thea Cali, Buried in the Baobab.


Sjaak Punt, Carving the landscape.

German University of Cairo, led by Holger Gladys, the exercise was done in a parallel studio. This formation overcame the binary relation between the host's and the visitor's countries, by implementing multidirectional learning tactics.

The Amsterdam studio's harvest contained design strategies fuelled by storytelling, landscape rituals, food, erosion, infrastructural developments, affordable housing, market politics and fishermen's economies. The House of Stories developed by Stephanie Ete dwelled on the tribal festival trajectories along the old Ningo Village, while Thea Cali focussed on protecting the sacred baobab trees. Ana Barbara Pessoa studied the food chains, introducing the large-scale edible forest as the first step towards urbanization, while Sjaak Punt designed with the erosion. Tom Lodder's urban strategy embraced the clash between the dream and the possible lifestyle parallel to Niels Hulsebosch's housing scheme inspired by the traditional tribal typologies. Following a focus on the community's economy, Julianna Celotti and Evie Lentjes developed a market overseen by market queens and a fishermen's farming village, respectively.

Friction makes the projects simultaneously stronger, more fragile and more critical. However incomplete, Ghana studio's humble contribution adds an ambiguous quality to the design strategies for the West African metropolis. We are enormously grateful to our guides, the numerous encounters with others, and the warm Ghanian energy in general. Go Ghana!

Tom Lodder, In Return, A social development strategy merging formal and self-organized space in Ningo Prampram.
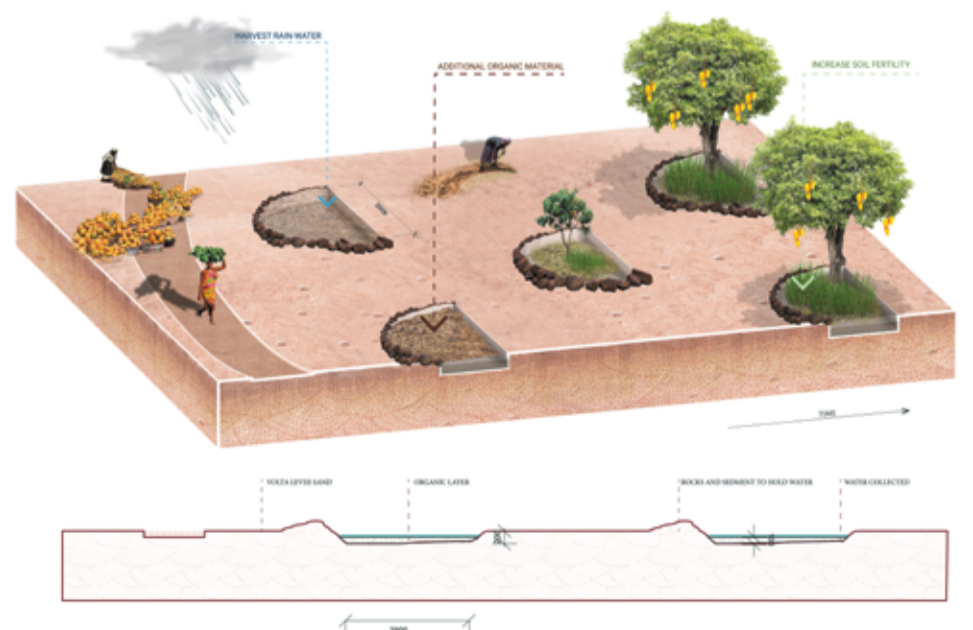
Ana Barbara Pessoa Somaglino, Edible forest, Providing a more sustainable food system for Ningo Prampram.

53
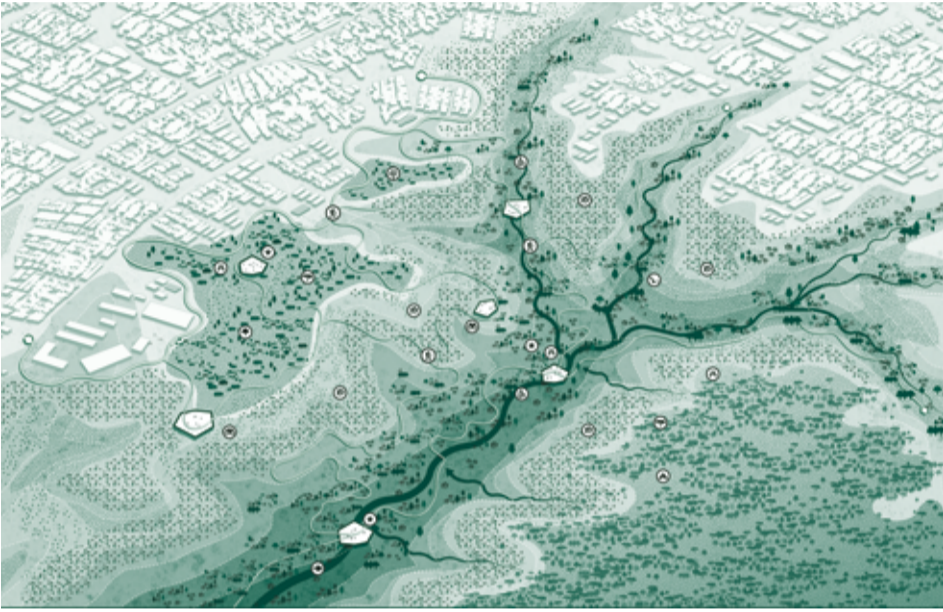
Kasper Neeleman, Living on the Edge.

Mark Vergeer, Go with the Flow, a natural transformation from river landscape to seascape.

MOROCCAN MOJO

In the P5O5 studio tutored by Gianni Cito, Jana Crepon and Vibeke Gieskes, students visited Rabat and Salé in Morocco. They made designs for the Bouregreg valley.

Text   VIBEKE GIESKES

In the past 15 years the Bouregreg Valley, an extensive natural area between Rabat and Salé, has been the focus of *Grand Projets*, aimed at extending the cities with a high-density, mixed-use programme. Since most of the investors withdrew due to financial crises, and contractors faced difficulties building on the wetlands near the river, most of the plans have come to an end. While the planned new city between Rabat and Salé failed, some individual architectural icons stand out. Among those are Zaha Hadid's theatre and the highest tower on the African continent, still under construction, designed by Rafael de la Hoz Arquitectos and CHB Cabinet Hakim Benjelloun. The empty building sites of today may become the ruins of the future or will provide the fundaments for future developments.

Local architect Driss Benabdallah of architects' office AIR (Architects in Rabat) has been advocating a new vision for the area for years now. He became our partner in the project, together with Rabat-based French landscape architect Philippe Vidal. A project similar to the one at the Amsterdam Academy of Architecture was led by Benabdallah and Vidal at the École Supérieure d'Architecture de Rabat with a group of 25 students. During the workshop, the students from Amsterdam and Rabat worked together in teams on different self-formulated tasks within the bigger assignment. Not only could our students benefit from the insider-views from their Moroccan colleagues, but this first week also shaped very fruitful intercultural relations and exposed the different approaches of schools and of disciplines (architecture, urbanism and landscape architecture).

The assignment turned out to be even more relevant than expected. As our Moroccan partners kept emphasizing: the valley has great historical and ecological value for the surrounding cities and it should contribute to the positive development of both Rabat and Salé. It can serve as a connection between the two, by taking future challenges such as the rising sea level and its effect on the valley into account. By improving the qualities and natural values, the valley could contribute to a sustainable development of the growing cities. The students' projects dealt with these topics. The workshop at the School of Architecture of Rabat concluded with a presentation to representatives of the local government, project developers and constructors, who acknowledged the value of the collaboration between Amsterdam and Rabat.

Back in Amsterdam, the Amsterdam students fleshed out their research and completed their projects, resulting in a very rich and diverse range of plans. Mark Vergeer worked on a project that accepted the rise of the sea level in the valley. Kasper Neeleman talked about the edges between city and valley and the in-between zone. Magali Sanz Casas created a walkway connecting the historical monuments in the area. Anouk van Deuzen and Bram Oude Monnik studied possibilities for bridging the zone between the two major cities. Aneta Ziomkiewicz zoomed in on the recent ruins and created different scenarios to make them part of the context. On a smaller scale, Noury Salmi created a building for craftsmen who make the typical local pottery and Tom Bruins Slot designed a public gathering space inspired by Moroccan living rooms. Sherif Azmi gave the vanishing fishermen their own village in the valley, made of rammed earth, based on the Moroccan way of living. Every project studied different scale levels, from a bigger context up to the smallest detail. The research and writing for the paper became an undivided whole with the project and led to valuable studies and insights. Our Moroccan colleagues valued our students' different and often new ways of seeing and thinking. It confirmed their conviction that the valley is a space were everything still is possible.
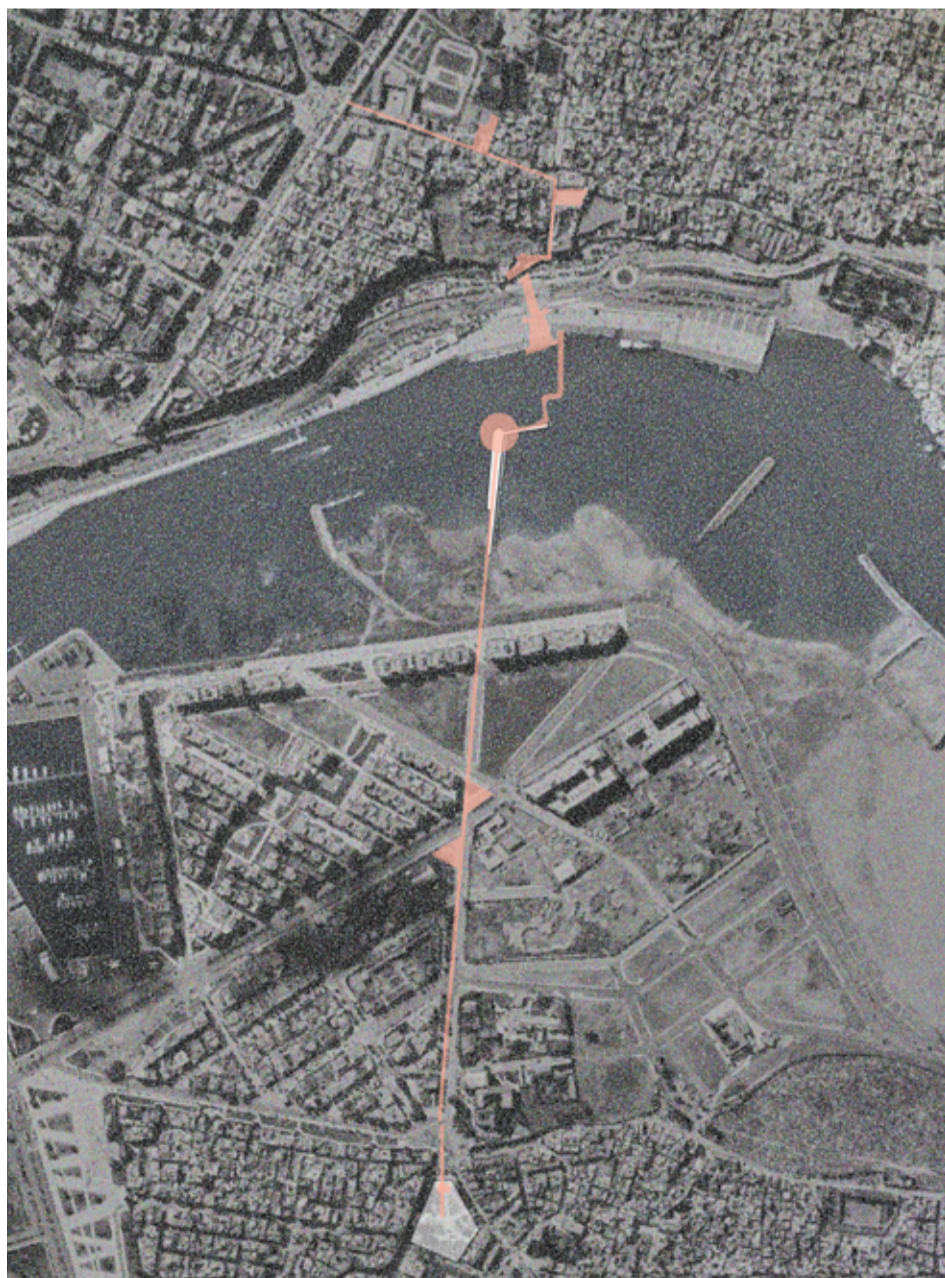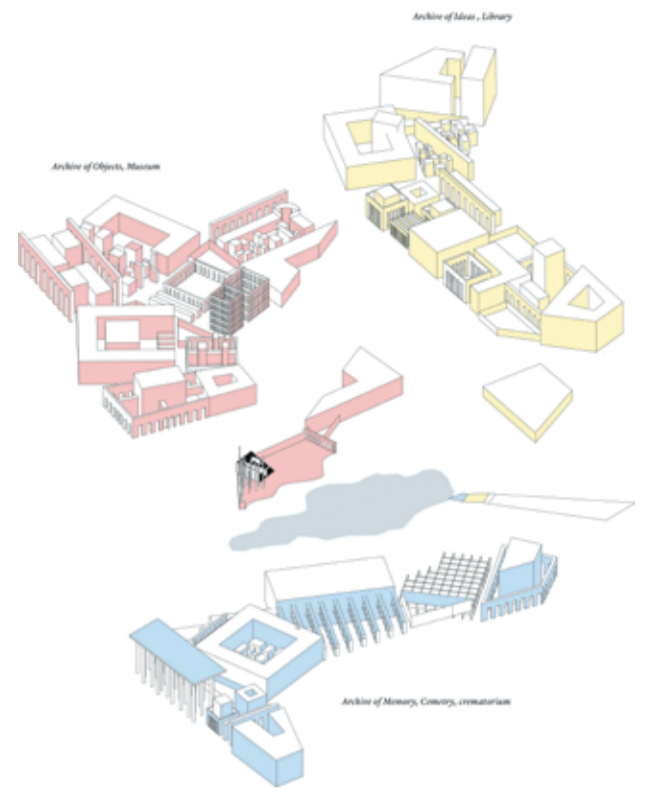

Anouk van Deuzen, Bouregreg Roots.

Aneta Ziomkiewicz, Bridging the Forgotten Railway.

TO TOKYO

In the P5O5 studio tutored by Mirjana Milanovic, Hiroki Matsuura and Michel Heesen, students visited Tokyo. They produced designs for the razed site of the former Tsukiji fish market.
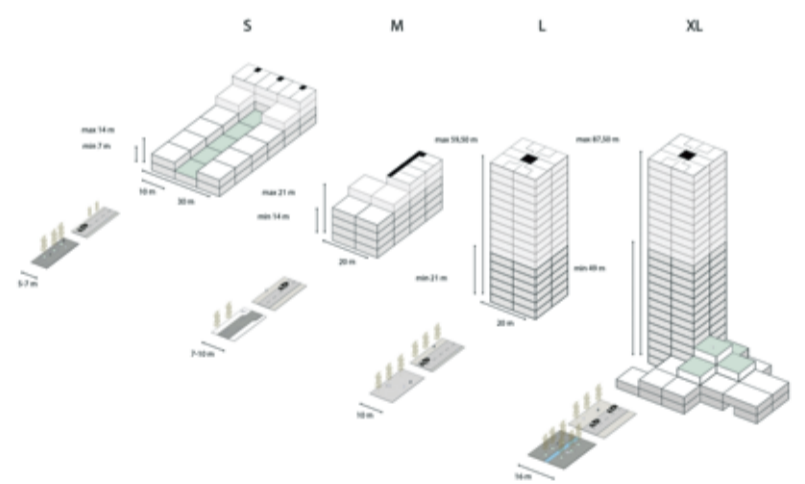
Text   MIRJANA MILANOVIC

Ayla Azizova, Cabinet of Curiosity.

Kinke Nijland, A celebration of the shape of Tokyo.

In the first semester of this academic year, a unique chance was offered to a group of Academy students: to work on one of the most exciting cities in the world and to learn about urbanism through discovery of another urban culture, in close contact with Tokyo students and lecturers. This was made possible by collaboration with the Meiji University in Tokyo, where I was a visiting lecturer last year.

The moment was unique too: the final year of preparations for the Olympic games that were originally planned for 2020 but have now been postponed to 2021. As in 1964, Tokyo took the Games as an opportunity for a big makeover, this time not with highways and iconic architecture, but with modest venues, new high-density, mixed-use developments and transformation of the waterfront.

One of those locations, the site of the former Tsukiji fish market that was emptied in 2018, was chosen for the project. The exact place of the fish market changed down through the centuries, but remained in this part of the city since the Edo period, late sixteenth century. It can be seen on its first location in Nihonbashi in nineteenth-century drawings of Hiroshige, and was again built from scratch on Tsukiji ('reclaimed land') after the devastating earthquake in 1923. The fish market was located next to hundreds of small eateries in Ginza, the commercial centre of Tokyo, serving as the starting point for a complex and finely woven network of food distribution. In recent years it also became a tourist attraction, famous for its tuna fish auctions. For the 2020 Olympics, the site was prepared as a logistic centre, with plans for commercial development after the games. Olympic venues in Tokyo are planned in two zones: the Heritage zone around the Imperial Castle and the Bay Area zone comprising an artificial island with previously dominantly industrial functions. The 25-hectare surface of the Tsukiji site belongs to both: a physical and historical connection between the old, traditional and the new, modern Tokyo.

The location at the edge of Tokyo Bay, between the traditional Hama Rikyu garden and the old neighbourhoods of Ginza and Nihombashi, was an inspiration for students to start the analyses for their assignment, by exploring traditional Japanese culture and the history of Tokyo. Its location on a low patch of artificial land that is vulnerable to tsunamis and the high water of the Sumida River led to the involvement of Dutch expertise in water management and designing with water. And then there was the fascination with the density, size and layers of the city of Tokyo.

With these first impressions, the group travelled to Tokyo in September 2019 for a one-week programme. Fortunately, the visit to Tokyo fell between two storms (one in August and a much stronger one, Hagedis, in October). The students were guided by locals: not only Hiroki Matsuura, who grew up in Tokyo, but also lecturers and students from Meiji University.

Our first day started on the west side of the central part of Tokyo. We first visited the Roppongi Hills multifunctional centre on one of the major subway nodes. Then came the vibrant, bustling Shibuya crossing in front of the eponymous train station, followed by the Meiji Jingu shrine. This shrine is in the serene forest next to the Imperial Garden, which was built twice in 100 years, the second time after its destruction in the Second World War. The Yoyogi park next to it served as an Olympic village in 1964 and still houses two iconic Olympic venues from that time, designed by Kenzo Tange.

The physical results of the planning for the Olympics were visible in the walk on the islands in Tokyo Bay on the second day. Three artificial islands across the water from Tsukiji were in full swing of new high-density developments; a vertical Olympic village to be transformed in a new neighbourhood after the Games. The view to the location from the empty key across the water and the sharp contrast between small and big, old and new in the adjacent neighbourhood of Tsukushima inspired future designs.

On two other islands, we discovered the new, modern Toyosu fish market and the big white box of TeamLab Planets, an extraordinary, futuristic digital art museum. Later, there was the Tokyo nightlife in the small cafes of the Shinjuku area and the Akihabara electronic world.

Another part of our Tokyo experience were the workshops with a group of students from Japan and other Asian countries. The urbanism department of Meiji University is located on the Nakano Campus, a set of modern buildings around a park, surrounded by a typical Tokyo mixture of small individual housing and larger housing blocks.

For the Meiji students, the task of a weeklong workshop was to develop a complete scheme for the area of Tsukiji. Students from Amsterdam participated in the first phase. They worked on initial concepts in mixed groups with Meiji students and students from the University of Haifa, Israel. This gave the opportunity to deepen the knowledge about the city and its culture, but also to compare three different educational systems. Academy students excelled in presentations of clear concepts, Meiji students in the elaboration of the final results. Lecturers from both Amsterdam and Tokyo gave their comments in final reviews.

This kind of combined review panel was also in place in Amsterdam, during the midterm review of Academy projects. Social structure and climate resistance were major themes for students. These issues made the most impact on them during the study trip. Based on those issues, the first urban designs started to crystallize.

In the final results, those themes were expressed in different forms. The names of the projects told about the diversity of ideas that emerged from months of studying, visiting, discussing and designing: Electric City, Transition to Wabi-Sabi, Climate Entertainment Park, Most Social Neighbourhood of Tokyo, Tsukiji Ensemble, Sex in the City, Cabinet of Curiosity, Tsukiji Canals and Celebration of the Shape of the City.

The students developed urban design skills and gathered knowledge about the culture and the city that were their main reasons to choose this studio. The interaction and exchange made the world smaller for a while and opened up possibilities for future co-operation and exchange between the Amsterdam Academy and Meiji University.

Several months later, Tokyo seems further away than ever. The Olympic games have been postponed and the Shibuya crossing is empty, just like most places in world cities. Although everything seems different, the underlying issues of social life and the impact of climate change remain, just as every city's specific responses to those challenges. They follow cultural patterns. The response of Tokyo is probably similar to those in the city's past, marked by earthquakes, tsunamis, bombings and epidemics: be prepared, endure, renew with a concentration of collective effort and carry on. This approach makes this amazing, vibrant city of contrasts even more impressive and gives us here and now, mid-2020, another valuable insight into the powerful resilience of cities.
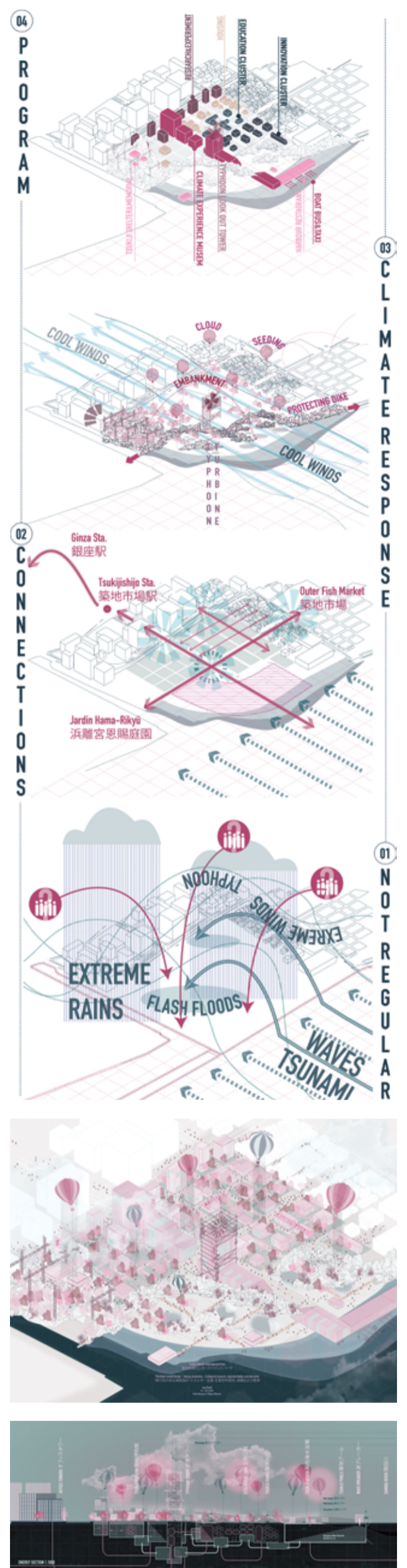
Léa Soret, Tsukiji Climate Entertainment Park.

EUROTOUR BERLIN

In 2019 the Eurotour visited Berlin. In the company of Master Programme heads Hanneke Kijne, Jan Richard Kikkert and Markus Appenzeller, students visited the Hansaviertel neighbourhood, David Chipperfield's Neues Museum, Erich Mendelsohn's Einsteintoren and new construction projects by architecture practices Zanderroth and Robertneun, among others.

Photos   HANNEKE KIJNE, JAN RICHARD KIKKERT

ACADEMY AND THE WORLD

NARROWING THE GAP

In the summer of 2019, a group of eight students travelled through Iran, guided by Ashkan Hashemkhani. He's an architect and graduate from the Amsterdam Academy of Architecture.

Text   ASHKAN HASHEMKHANI
Photos   MARLIES DOESBURG, NINA KNAACK

On a Friday afternoon more than five years ago, after a long day's work, I was standing in the courtyard of the Amsterdam Academy of Architecture taking a breath of fresh air with some study friends. I told them about my plans to travel through Iran that same year, to get to know my native country better. I wanted to see the architecture, urban design and countryside of Iran to find inspiration for my graduation project. My stories about the country and the plans for the trip made my friends even more curious than they already were, and so the four of us left for Iran in the summer of 2014. Their positive reactions after the trip made me want to share this experience with more people. I wanted to narrow the gap between Europe and Iran an offer people the opportunity to experience the true Iran and its rich culture. Ever since, there have been trips almost every year. Academy students that take the trip receive two study points.

In the summer of 2019, nine of us travelled through the central and north part of Iran for 15 days. We visited cities and villages such as Teheran, Qom, Kashan, Abyaneh, Nain, Meybod, Yazd, Chak Chak, Kharanagh, Shiraz, Izadkhast, Varzaneh, Isfahan, Qazvin, Rasht, Qhale Roodkhan, Masouleh and Anzali. The country presents great contrasts: a dynamic capital, a vast and empty countryside in the south and green landscapes and beautiful villages in the north. The environment and the landscape are almost extraterrestrial. Covering small distances, you can go from a green environment with a humid climate to a dry landscape in the sand dunes or find a salt lake where next to nothing will grow. We visited contemporary architecture in Teheran, several building sites, traditional dwellings and baths, paradisiacal Persian gardens, historical palaces, castles, the tombs of poets and historic figures, the lighthouses and cemeteries of the Zarostians, caravanserais along the silk route, museums filled with carpets, art and historic artefacts, 1900-year-old mosques, historical locations such as Necropolis, Pasargadae (the capital of the Achaemenid Empire) and Persepolis (the capital of ancient Persia). We travelled 2,500 years back in time.

The students returned enthusiastically from the trip this year as well. Yazd, Isfahan and Varzaneh were in their top three. During the trip they covered more than 3,500 km by coach. They walked a lot, climbed mountains at Qhale Roodkhan, sailed the swamps of Anzali, swam in a hotel pool, sandboarded in the desert mountains of Varzaneh and shopped at the oldest bazaar of the world in the city of Isfahan. The variety made the trip a succession of lovely surprises.

HUMAN NATURE

At the EMiLA Summer School, students designed landscapes
for humans and nature alike.

Text   VENETIA KOLLIA
Photos MANUEL WESEMANN

Participating for the second time in the EMiLA (European Master in Landscape Architecture) Summer School, I thought I knew what to expect, but I soon realized that every year the experience is unique. This year, we discovered the wild east of Hannover, Misburg. The place has been forgotten by the city's inhabitants, who seem unaware of the potential and the great diversity of beauty in this landscape. Misburg is very rich with history. It has a diverse topography, it's characterized by moving water and influenced by human activity. Misburg basically has everything; canals, motorways, high-speed railway lines, quarries, industrial zones, recreational areas, nature reserves. The question was: How can we reclaim such a special landscape by design?

Together with students from the universities that participate in EMiLA (Leibniz Universität in Hannover, Ecole Nationale Supérieure de Paysage in Versailles, the University of Edinburgh, the Amsterdam University of the Arts and the Universitat politécnica de Catalunya) and students from other invited universities (such as Ljubljana University, RMIT Melbourne and the Aalto University in Helsinki), we got to know the 8 × 4-km laboratory. We walked more than 25 km, biked more than 40 km and rowed for 1.5 hours. We explored the wilderness of the space, the fenced-off nature conservation areas, with the guidance of experts. We discovered artefacts in the post-industrial landscape and we touched the different substrates and materials that form the human humus. While exploring, external experts from research, administration and society gave us their input.

When this full weekend ended, a busy week started. The introductory assignment was to create a small landscape fairy-tale about our first impressions on the space and the theme. In the beautiful sculpture garden of the Faculty of Architecture and Landscape of Leibniz Universität, a theatre stage was set up and we watched many interesting interpretations of Misburg, from short theatrical plays to contemporary dance, from loud performances to silent acts. This event marked the beginning of five long days (and nights) of studio work. Each group started discussing and drawing under the guidance of one or two lecturers. We made an analysis of the existing maps and created new ones. We drew our ideas over and over until we agreed that we had a strong design. In the final presentation, the groups discussed their designs. Each one of them had something different to offer on the subject. One group gave special attention to the increase of biodiversity and the routes of the animals, while others focused on the connections and the accessibility. One group dealt with the space like it was an archipelago of islands and another saw the industry as an opportunity for a future that puts nature and its rehabilitation as a first priority.

The aim of the EMiLa summer school is to connect the diverse educational institutes and create a network of professionals and students who share their interests and excitement about landscape architecture. This year, we made it happen through exploration, fun and of course design.

63

LEARNING FROM LANDSCAPES

The Ippolito Pizzetti International Summer School 2019 took place in Tivoli, Italy, from 18 to 22 July. Paolo Picchi, the organizer of the summer school, relates his impressions.

Text   PAOLO PICCHI
Photos   FRANCESCO GALLI

Ippolito Pizzetti was an Italian landscape architect who regularly published articles in Italian journals. His readers were not academics, but the general public. The summer school's objective is to train European students in Landscape Architecture in Ippolito Pizzetti's approach to the study of the landscape. During the first day, Sofia Varoli Piazza, landscape architect and garden historian, quoted Ippolito. In the English preface to his book *Naturale inclinazione*, it says: 'This is the secret: as long as you are in the world, to have tried to embrace the pleasure of forms, of colors, of young women's expressions, of plants, of clouds, even of the animals you encounter, whatever they might be, which have given to this brief existence of ours a meaning and the pleasure of having been here, of having been. This is a pagan way of living. But I would like to know who could possibly forbid us our pagan sentiments, which are part and parcel with the origin of the world.'[1] This is the invitation to students who attend the Ippolito Pizzetti International Summer School: to take note of every suggestion that nature and its processes can give to a design.

The 2019 edition was set in Tivoli, Italy, in the terraced landscapes surrounding the park of Villa Gregoriana, the Anio waterfalls, Villa d'Este gardens and the Sanctuary of Hercules. Those models inspired Renaissance architects and later spread across Europe, as can be seen in for instance the Hortus Palatinus in Heidelberg, Germany (1614). This landscape is cultivated with the so-called *pizzutello*, a corn grape variety known since antiquity, and renewable energy, such as the second-oldest hydropower plant in Italy (1884). The grapes can grow on typical pergolas built of chestnut poles and river canes, laced with herb leaves, *cartica* in the local dialect, the *ampelodesmus mauritanicus*. This is a stratified landscape, rich in ancient roman buildings, temples and water infrastructure. The abundance of flowing water in several subways represents the richness of Tivoli and the origin of all its glories. Nowadays the production of grapes is disappearing, with subsequent erosion of agro diversity, while renewable energy production from water is constantly expanding.

A new Slow Food community, whose voice is the fantastic farmer Bruna Grossi, wants to revive the cultivation of the grapes and offer new jobs for future generations. In line with the European Landscape Convention principles, the Summer School's purpose was to support the community in reading and interpreting the values of the landscape according to *Naturale inclinazione* and to translate them into visions for the future. The pedagogic approach was a mix of field trips and discussions, readings, contributions from local experts, evening lectures and practical activities. A successful exchange of ideas was created between lecturers and students. Preparing food together, under the guidance of chefs and Slow Food local representatives Gabriella Cinelli and Stella Schiavon, stimulated discussions about topics ranging from food to energy and landscape.

Pizzetti used to say that after post-modernism and functionalism, he argued for more art in landscape architecture. Therefore, each year, the Summer School hosts an international artist. In 2019, the guest was Gianni Burattoni, who developed new poetic approaches to landscape architecture in Europe in the past decades. He grew up in the environment of Scottish poet and artist Ian Hamilton Finlay, and in close friendship with landscape architect Bernard Lassus and philosopher Massimo Venturi Ferriolo, and went on to realize many projects in Europe that are characterized by the recalling of past memories and hidden meanings. In his evening lecture, Burattoni illustrated his work at the coalmines of Goitzsche Wald, Germany, in recovering memories of the former energy landscape.

Another contribution came from Luigi Latini, associate professor at the IUAV Venice, who illustrated cases of productive landscapes through the different editions of the Premio Carlo Scarpa per il Giardino, an annual international prize that awards landscapes and gardens from around the world, promoted and organized since 1990 by Fondazione Benetton Studi Ricerche, Treviso, Italy.

Photographer Francesco Galli showed his work, which covers landscape, gardens and open-air theatre choreography, and produced a photo series of the Summer School. Tessa Matteini, Director of UNISCAPE, the European network of universities dedicated to landscape studies and education according to the principles of the European Landscape Convention, gave an evening lecture on the meaning of cultivating archaeologies. At the end of the Summer School, the main message students brought back home was the relevance of cultivating landscapes, no matter what you want to cultivate, whether it's energy, ruins, grapes or roses. European landscapes are man-made and their healthiness depends on healthy human activities.

1. Ippolito Pizzetti, *Naturale Inclinazione: Coherent Meanderings of a Rebellious Landscape Architect*, Encyclomedia Publishers, 2011, Introduction.

The Sanctuary of Hercules is now partly covered.

The participants visited Villa d'Este in Tivoli.

Inge Hoogland

Tamayouz Excellence Award

Architect Lesia Topolnyk, who was one of seven winners of Archiprix International 2019, won the Tamayouz International Graduation Projects Award 2019. The Tamayouz Excellence Award is Iraq's most prestigious architecture and design award. She won the prize for her graduation project at the Amsterdam Academy of Architecture, titled Un-United Nations Headquarters, which also won her the Archiprix International 2019. In her project, Topolnyk explored the role of architecture in absorbing conflict and fostering its fruitfulness within a divided society. The project transformed the Sevastopol naval base into a trade port, positioning the Crimea as a gateway to Ukraine and Russia.

The jury commented: 'This project was brilliantly drawn and explained. It is provocative and was chosen as a seed for debate regarding the role architecture can play in drawing attention to conflicts. The building creates a space for discussion within a radical form in contradiction to orthodox typologies. It resolves complex social interconnectivity with clarity and simplicity. The site was well-chosen for its connection to both local and global political situations. The project was measured by the panel more as a manifesto for the power of architecture to transform societal conventions, rather than as a real architectonic proposal. However, with that said, the programme is completely uninterrupted by any other architectural, cultural, constructional, or economic forces. It simply creates a corridor. It is admirable for its simplicity and for creating an architecture that does exactly what it intends to – provide a vessel for political discussion.'

ARC Young Talent Award

Architect and Amsterdam Academy of Architecture alumnus Anne Dessing was the winner of the 2019 ARC Young Talent Award. The jury, chaired by Evelien van Veen, considered her a talented designer with an innovative perception of architecture. Anne Dessing and her studio operate at the intersection of art and architecture. She is an inquisitive architect who works on exhibitions, installations, drawings, models, interiors and (temporary) buildings and not only has her own design practice, but also teaches at various academic institutes.

The jury appreciated Dessing's analytical attitude. Although the way she presented her studies was as yet fragmentary, the jury felt they had great potential. Her designs, for example for the interior of the Sandberg Institute in Amsterdam, included creative solutions and she paid a lot of attention to light and sightlines. The jury was curious about how she would further develop this attitude once she would start acquiring commissions that go beyond interior design.

The ARC Young Talent Award is presented annually to a promising young designer of up to 35 years of age. Such young architects distinguish themselves by their innovative perception of architecture, society and design as well as by the extraordinary contributions they make during the first stage of their professional practice.

Inge Hoogland

KuiperCompagnons Graduation Awards

Landscape architect and Amsterdam Academy of Architecture alumnus Anne Nieuwenhuis received an honourable mention at the KuiperCompagnons Graduation Awards 2019. For her graduation project Liquid Land she devised a strategy to reuse the polluted silt from the Western Scheldt estuary. On behalf of the Academy of Architecture this graduation project was also nominated for Archiprix Nederland 2019.

The Western Scheldt is an estuary: both an open sea arm and a river mouth, with specific characteristics such as a large tidal range, salt gradients and turbid water. Over the last half century, the increased scale of shipping and dredging has caused the Western Scheldt to become deeper and therefore cloudier on average. In this murky Western Scheldt the smallest particles – negatively charged silt particles – are pivotal. They form compounds with positively charged, toxic substances such as dioxins and heavy metals. The Scheldt basin has a rich history of toxicity including industrialization, urbanization, pollution and the long absence of upstream water purification. As a result, contaminated deposits are now stored in the Western Scheldt.

However, the pivotal silt can also provide the solution to the estuary's problem. Liquid Land introduces concrete measures that lead to solutions: moving along with the estuary, less water in the system and the collecting and processing of contaminated silt that is then used to create building blocks that stimulate sanding and dune formation. The contaminated silt is used to create a building block, a block made of silt. The construction of a double dike transforms the site at which the concentration of polluted silt is the strongest, the Nauw van Bath, into a water treatment landscape and poison mine. The dike also constitutes the quay by which the blocks are transported to other locations in the Western Scheldt to create new dynamics, sand, dunes and accessible landscape.

Archiprix Netherlands 2020

The 2020 edition of Archiprix Netherlands had three *ex aequo* first prize winners. One of these was Charlotte van der Woude, with her graduation project Nature Is Under Your Feet at the Amsterdam Academy of Architecture. In her project, Van der Woude investigated the city of London, where many of the former tributaries of the Thames are now buried beneath layers of concrete. Like many other cities worldwide, these streams were the original reason that people settled here. Because of heavy pollution in the industrial era, these rivers have been turned into underground sewage systems that date back to the Victorian era. In her project, Van der Woude tried to discover if this hidden structure could offer a chance to create a 'new nature'. One that cannot survive the harsh city life aboveground, but could facilitate a whole new type of habitat: a fragile nature to be discovered beneath your feet. A description and images of her project can be found on page 33 of this newspaper.

Inge Hoogland

The 2020 edition of Archiprix Netherlands awarded two honourable mentions that both went to Amsterdam Academy of Architecture alumni. Paul Kuipers received an honourable mention for his graduation project Het Achterhuis (The Secret Annex). Het Achterhuis is a spatial manifesto to address the importance of transparency, a fundamental digit in the democratic system. Kuipers designed a place for Edward Snowden, who revealed important information about how governments and corporations are monitoring the people and stealing their data in order to manipulate it. It forced him to run. He ended up stateless in an asylum outside his own society. A description and images of his project can be found on page 35 of this newspaper.

Inge Hoogland

The 2020 edition of Archiprix Netherlands awarded a second honourable mention to Patrick Roegiers. He received this honourable mention for his graduation project A Sense of Home at the Amsterdam Academy of Architecture. Roegiers investigated homelessness. In order to do so, he lived on the streets of Amsterdam for a week. One of the most important insights he gained was that homeless people feel at home in their neighbourhood, but regret that there are no rooms in this 'home'. Their living rooms, bedrooms, kitchens and bathrooms are in scattered locations across the city, like a fragmented network. This forces the homeless to travel to different places inside and outside the city, which causes stress, unrest and physical suffering. The city has plenty of unused spaces and residual flows that can be used to facilitate the everyday life of the homeless. Roegiers built two rooms in the neighbourhoods that most needed them: a kitchen on Dappermarkt called the Dapperkeuken and a bedroom in the Jordaan called the Bedsteeg. A description and images of his project can be found on page 36 of this newspaper.

De Amsterdamse Scheggen (Amsterdam's 'Green Fingers')

From 13 December 2019 ARCAM exhibited work by Amsterdam Academy of Architecture students in the exhibition 'Gelaagd Groen' ('Layered Green'; part of the exhibition 'De Amsterdamse Scheggen'). Each student presented a vision for the future of one of Amsterdam's 'green fingers'.

For the third-year subject Research and Design of the Landscape Architecture course, seven students studied De Brettenscheg. This 'green finger' was created in the twentieth century as a buffer between the garden cities and the harbour. Today it is a green zone the size of Central Park in New York. It is poorly used and does not have a strong identity of its own. The students designed a seven-layered plan that gives this *scheg* or 'green finger' new value and meaning and allows it to contribute to the healthy city of the future.

Participating Amsterdam Academy of Architecture students were Pedro Silva Costa, Roy Damen, Anne-Roos Demilt, Vincent Lulzac, Wieger Postma, Jasmijn Rothuizen and Vito Timmerman. They were supervised by Yttje Feddes, Mark Hendriks and Eric Frijters.

New urban edge.

Was I an Ornament?

From 9 June to 15 November 2020, ARCAM hosted the exhibition *Was I an Ornament?* In the past decades, the City of Amsterdam collected and stored many building fragments, ornaments and the debris of monumental buildings in a depot. The time has now come that the City of Amsterdam does not want to store them anymore and is willing to give them away to anybody who comes up with a reasonable plan. This project by students of the Academy of Architecture researched how historical building fragments and ornaments can be an inspiration for and reused in future plans.

The students designed a new building on the Marineterrein that will house three functions already present on or near the area: the Archaeology Workplace of the Department of Monuments and Archaeology, the current MakerSpace of the Academy of Architecture and a new home for ARCAM, Amsterdam's architecture centre.

Every student was tasked with finding a suitable place for the collection of these forgotten ornaments in their building. The students also worked with real building fragments and ornaments of their choice from a big crate the Academy received from the Department of Monuments and Archaeology, category D: debris. Not only the aesthetic of the fragments were central, but also how the fragments were processed. Building fragments were redrawn, 3D scanned, printed, copied, mirrored, used as casts, etcetera. Then the historical fragments and ornaments were interpreted into a new functional element for the design project: the door handle of the building.

Each student's historical building fragment, door handle and building design was on display. The project was supervised by Jarrik Ouburg (HOH Architecten), Kaita Shinagawa (Studio KU+) and Juliette Gilson.

Ornaments in order.

ABOUT THE AMSTERDAM ACADEMY OF ARCHITECTURE
This annual newspaper is published by the Amsterdam Academy of Architecture, an international school that offers space to experiment, produce and reflect in the heart of Amsterdam, providing a laboratory and workplace in one. Established in 1908, the Academy is now part of the Amsterdam University of the Arts (AHK) and offers three Master's programmes: Architecture, Urbanism and Landscape Architecture. The interdisciplinary courses prepare students for practising spatial design as a discipline on the cutting edge of visual art, construction engineering, civil and cultural engineering and the spatial sciences in a national and international context. Students study and work simultaneously, combining academic learning with professional development. All of the guest lecturers are practicing professionals, forging a strong connection between the school and the job market. Graduates are entitled to independently practice one of the three disciplines taught at the Academy. The degree meets the admission requirements that are defined in the Dutch Architect's Title Act and is notified with the EU. The graduate has direct access to the Dutch register of architects, urban planners and landscape architects and is qualified to compete in the European market. The Academy has its own place in the cultural life of Amsterdam and places itself in the professional debate through lectures, workshops, events and exhibitions.

P1a (AUL) Space *A visitors pavilion in Fort bij Abcoude* Susana Constantino / *Electronic heroin, sanatorium for internet addicts* Tatjana Djordjevic / *The bathhouse* Anna Fink / *Fort observatory* Saša Radenović / *Another perspective* Ricky Rijkenberg / *Weight of walls, a seven-day retreat* Bart van der Salm / *Hoofddorp fort island, viewing tower* Serge Schoemaker / *Dwarf fortress, losing is fun!* Dafne Wiegers / *Fort five houses* Michiel Zegers

P1b (A) Large House *Memories of the sea, a home for a family of kite surfers* Pnina Avidar, Paul Toornend / *Maison Viktor & Rolf (the house as movie set)* Geurt Holdijk, Paul Kuipers / *Work in progress* Barend Koolhaas, Menno Otten / *Nova's ark* Max Rink, Niels Tilanus / *Schiffmachers residence, living with a collection* Laura Weeber

P1b (UL) Place *Steel and water* Zuzana Jančovičová / *Mooring place Noorder IJplas* Marit Janse / *Tourism, welcomism, mutualism* Ania Sosin / *Mooring* Grisha Zotov

P2a (A) Building and Construction *Temporary pavilion for Dutch Design Week 2020 in Amsterdam* Hans Hammink, Marlies Boterman, Joost Lauppe / *Designing with flows* Jos de Krieger, Césare Peeren / *Bio-based pavilion Eindhoven* Maartje Lammers, Adri Verhoef / *The smart move, new nomads in the delta* Jeroen van Mechelen, Césare Peeren / *Museum in transition* Marlous Vriethoff, Gilbert van der Lee

P2a (U) Block Typology *Working city* Giacomo Gallo / *Harbour city* Katharina Hagg

P2a (L) Human and Animal *(De)construction for cohabitation, negotiation for coexisting* Yuka Yoshida / *Animal infrastructures* Thijs de Zeeuw

P2b (AL) Building in Landscape *Countryside, the future?* Dingeman Deijs / *The harvest of the intangible* Gloria Font / *Gold rush trail* Ira Koers / *The next generation* Kim Kool, Willemijn van Manen / *Grassy business* Mirte van Laarhoven, Brigitta van Weeren / *The next generation* Anne Nieuwenhuijs / *Transformation of a pig farm in Noord-Brabant* Paul van der Ree, Charlotte van der Woude

P2b (U) Neighbourhood *City life on the Willems-axis, Rotterdam* Marco Broekman, Floris van der Zee / *Station Van Nelle Rotterdam, perspective for new urban development* Hein Coumou

P3a (AUL) District / Typology *Urban peninsula* Rene Bouman, Ton Schaap / *Manifesto for Nieuwendammerham* Tess Broekmans / *Porous living, urban (re)occupation scenarios* Raul Correa Smith / *Collectivity in urbanism and architecture* Jeroen Geurst / *Alphabeta city, Nieuwendammerham as a smart-tech neighbourhood* Burton Hamfelt / *Liveability in a symbiotic neighbourhood* Andrew Kitching / *Designing the Next City* Matthias Lehner, Zuzana Jančovičová / *City district, neighbourhood* Marc Nolden / *A development strategy for Nieuwendammerham* Martijn de Wit

P3b (A) Residential Building *The new young ones* Floris Hund, Marlies Rohmer / *Micro apartments, maxi design* Bastiaan Jongerius / *Not just a housing block* Stijn de Jongh, Jolijn Valk / *Mixxx* Kamiel Klaasse, Gen Yamamoto

P3b (U) City *Harvesting infrastructures* Mauro Parravicini, Rob van Kalmthout, Ronald Rijnen, Marta Roy Torrecilla / *The Beauty and the Beast, new romance between city infrastructure and city life* Martin Probst, Wenchi Yang, Martijn de Wit

P3b (L) Place in Urban Landscape *Amsterdam Albemarle, between the woods and the river* Ruwan Aluvihare / *Cabinet of curiosities* Robbert Jongerius / *Reveal the hidden property* Mirte van Laarhoven, Brigitta van Weeren, Alessandra Covini

P4 (A) Public Building *Craft, repair, architecture* Jo Barnett, Richard Proudley / *Agora 2020* Rogier van den Brink, Gus Tielens, Jeroen Musch / *Spolia* Jarrik Ouburg, Juliette Gilson / *Doornburgh* Jan Peter Wingender

P4 (UL) Regional Design *Brainport Eindhoven, Zuidas or Brabant?* Huub Juurlink, Roel van Gerwen / *The state of the estate in the Brabant region, from a collection of fragments to networked futures towards ecological vibrancy* Saline Verhoeven, Raul Correa Smith

P4 (L) Regional Design and Research *New designs for the distribution quest* Marieke Timmermans, Pepijn Godefroy

P4 (A) Extra Lisette Plouvier

P4 (A) Extra Stephan Verkuijlen

P4/P6 (S) Extra Herman Zonderland

P4/P6 (L) Extra Cees van der Veeken

P5 (AUL) Research and Design *Ghana* Lada Hršak, Remco Rolvink / *Morocco* Gianni Cito, Jana Crepon / *Tokyo* Mirjana Milanovic, Hiroki Matsuura / *Plan B: stay or go* Meritxell Blanco, Pieter Jannink, Rik de Visser / *What's next around the tracks* Riette Bosch, Miquel Loos / *Sluis NL, re-valuing shrinkage* Kevin Logan, Maike van Stiphout / *Layered green* Yttje Feddes, Eric Frijters / *Urban Gaming* David Kloet, Felix Madrazo, Ekim Tan

P6 (A) Integral Research and Design *Architecture school, next generation* Bart Bulter, Chiara Dorbolò / *District court for Amsterdam-Noord* Rob Hootsmans, Remco Bruggink, Jan-Richard Kikkert / *District court for Amsterdam-Noord* Wouter Kroeze, Anika Ohlerich / *New cultural centre in Moscow* Daria Naugolnova, Alexey Boev, Jan-Richard Kikkert / *University of the crafts* Machiel Spaan, Marcel van der Lubbe, Mario van der Linden

P6 (UL) Integral Research and Design: Vision, Plan, Detail *Berlin Tempelhofer Feld* Martin Aarts, Hank van Tilborg / *Almendares river, the artery to an adaptive and prosperous future for Havana* Iruma Rodriguez, Jandirk Hoekstra

P6 (L) Integral Research and Design: Vision, Plan, Detail *Metabolism of city and landscape in the park wedges of Amsterdam* Jonas Papenborg, Gerwin de Vries, Remco van der Togt

P6 (A) Extra Rene Bouman, Herman Hertzberger

O1 (A) Repertoire: Space and Place Robert Bijl, Geurt Holdijk, Bas van Vlaenderen

O1 (U) Repertoire: Space and Place Sebastian van Berkel, Eric-Jan Bijlard, Raquel van Donselaar

O1 (L) Repertoire: Space and Place Claire Oude Aarninkhof, Willemijn van Manen, Hannah Schubert, Michiel Zeijl

O2a (A) Material and Construction Marlies Boterman, Lizanne Dirckx, Christina Eickmeier, Jan Jongert, Thomas van Nus, Laura van de Pol, Bruno Vermeersch

O2a (U) Urban Instruments Andreas Mulder

O2a (L) Ecology and Biodiversity Fred Booy, Rob van Dijk, Sjef Jansen, Geert Timmermans

O2b (AUL) Reflection and Argumentation Oene Dijk, Barbara Heijl, Mark Hendriks, Caroline Kruit, Ania Molenda, Billy Nolan

O3a (AUL) People and Society Gert-Jan Bakker, Nadine van den Berg, Rene Boer, Charlie Clemoes, Fred Feddes, Michiel van Iersel, Alison Killing, Saskia Naafs, Maaike Poppegaai

O3b (A) Housing Bart Bulter, Meintje Delisse, Mark Snitker, Paul Vlok

O3b (U) Urban Systems and Infrastructure Jaap Brouwer, Jerryt Krombeen

O3b (L) Fieldwork Isabelle Andriessen, Marjolijn Boterenbrood

O4 (A) Materialisation Rens Borgers, Jasper Brommet, Vinny Jones, Jeroen van Mechelen, Bart van der Salm, Kaita Shinagawa, Baukje Trenning

O4a (UL) Regional Research Marieke Berkers, Marjolein Hillege, Merten Nefs, Tobias Woldendorp

O4b (U) Urban Regions Linda Vlassenrood

O4b (L) Time and Process Fred Booy, Rob van Dijk, Roel van Gerwen, Sjef Jansen, Geert Timmermans

O5 (AUL) Paper Marieke Berkers, Karin Christof, Vibeke Gieskes, Michel Heesen, Mark Hendriks, Rachel Keeton, Billy Nolan, Jeanne Tan

O6 (AUL) Paper Karin Christof, Vibeke Gieskes, Paul Kuipers, Arjen Oosterman, Jeanne Tan, Alexandra Tisma, Charlotte Van der Woude

O6 (ASL) Extra Arjen Oosterman

CL1 (A) Clinic Rob Hootsmans, Rik van Dolderen, Florian Schrage, Ira Koers, Peter Defesche

CL1 (U) Clinic Arjan Klok

CL1 (L) Clinic Maike van Stiphout, Rob van Leeuwen

GR CL Graduation Clinic Markus Appenzeller, Vibeke Gieskes, Hanneke Kijne, Jan-Richard Kikkert, Wouter Kroeze

V1a (AUL) Body [SPACE] Henri Snel, Maria Blaisse, Sanne Bruggink, Klaske Bruinsma, Krisztina de Châtel, Edwin Deen, Emma Hoette, Kristen Hollinsworth, Leonora Oppenheim, Hans van der Pas, Dries van der Post, Marjolein Roeleveld

V1b (AUL) Material [SPACE] Henri Snel, Abla Bahrawy, Bram de Jonghe, Elena Khurtova, Jane Lang, Baukje Trenning

V2a (AUL) Inter [SPACE] Henri Snel, Krijn de Koning, Erick de Lyon, Cedric van Parys, Curdin Tones

V2b (AUL) Graphic [SPACE] Henri Snel, Ronja Andersen, Mieke de Roo, Charlotte Schrameijer, Marius Schwarz

V3a (ASL) Virtual [SPACE] Henri Snel, Dajo Brinkman, Ruud op den Kelder, Jilt van Moorst

Tools 1 Landscape Analysis Mirjam Koevoet

Tools 1 Building Technique Jos Rijs, Jeroen van den Bovenkamp, Charles Hueber, Jean Marc Saurer

Tools 1 Urbanism John Westrik

Tools 2 Landscape Analysis Mirjam Koevoet

Tools 2 Building Technique Jos Rijs, Jeroen van den Bovenkamp, Charles Hueber, Jean Marc Saurer

C1a (AUL) History: Architecture, Urbanism and Landscape Architecture Marieke Berkers, Indira van 't Klooster, Vincent Kompier, Daryl Mulvihill, Joost Emmerik, Dirk van den Heuvel, Oliver Sack, Tim Verlaan

C1b (AUL) History: Architecture, Urbanism and Landscape Architecture Marieke Berkers, Indira van 't Klooster, Daryl Mulvihill, Fransje Hooimeijer, Jan-Richard Kikkert, Hans Teerds, Linda Vlassenrood

C2a (AUL) History: Architecture, Urbanism and Landscape Architecture Marieke Berkers, Indira van 't Klooster, Daryl Mulvihill, Markus Appenzeller, René Boer, Theo Deutinger, Hanneke Kijne, Lonny van Ryswyck, Machiel Spaan, Mechtild Stuhlmacher

C2b (AUL) History, Philosophy and Art Bert Taken

C3/C5 (AUL) Design Methodology and Professional Practice Chris Luth, Markus Appenzeller, Hanneke Kijne, Jan-Richard Kikkert, Matthijs Baas, Janet van Bergen, Uri Gilad, Yana Golubeva, David Habets, Albert Herder, Leonardo Kappel, Vincent van der Klei, Donald Murphy, Sanne Mylonas, Ivan Nio, Marina den Ouden, Ronald Rietveld, Iruma Rodriguez, Patrick Roegiers, Roel Schoenmakers, Sjoerd Soeters, Ekim Tan, Boukje Vastbinder, Klaas Jan Visser, Joost Vos, Jan Peter Wingender

C4/C6 (AUL) Theory, Society and Design Peter van Assche, Eric Frijters, Sven Stremke, Dirk Oudes, Gerjan Streng, Markus Appenzeller, Taneha Bacchin, Reinder Bakker, Luis Callejas, Hester van Dijk, David Dooghe, Michaël Ghyoot, Dan van der Horst, Daniel Ibañez, Lieke de Jong, Hanneke Kijne, Jan-Richard Kikkert, Hester Koelman, Katya Letunovskaya, Ingrid Luijkx, Rob Marsh, Elizabeth Monoian, Alessandra Scognamiglio, Dirk Sijmons, Stuart Smith, Thijs van Spaandonk, Edwin Thie, Christopher de Vries, Klaas Jan Wardenaar

1.Lectures Emilio Ambasz, Dilip da Cunha, Anurandha Mathur, Patrick Fransen, Micha Gross, Lyongo Juliana, Tina Saaby, Dirk Sijmons, Frederik Vermeesch

Minor Architecture Marlies Boterman, Paulien Bremmer, Ken de Cooman, Edwin van Gelder, Annemarijn Haarink, David Habets, Bregt Hoppenbrouwers, Malon Houben, Lada Hršak, Paul Kuipers, Jeroen Musch, Jarrik Ouburg, Saša Radenović, Ricky Rijkenberg, Jos Rijs, Rosa Jonkman, Kaita Shinagawa, Maike van Stiphout, Frans Sturkenboom, Lesia Topolnyk, Baukje Trenning, David Veldhoen, Paul Vlok, Metin van Zijl

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Introductory Workshop U+L Koen Hezemans, Willemijn van Manen, Iruma Rodriquez, Brigitta van Weeren

Introductory Workshop A Meintje Delisse, Dennis Meijerink, Christiaan Schuit

Startworkshop Bruno Vermeersch, Michiel Zeegers, Ruben Dahmen, Noel Loozen, Pim Palsgraaf, Bart Eysink Smeets

Winter School Building Conversation: Tjallien van der Molen, Krista Peters, Mara van Nes, Katja Dreyer, Salomé Mooij, Amber Bongaerts, Sodja Lotker, Peter Aers, Lotte van den Berg, Daan 't Sas, Yola Parie

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