

SAC

2011-12



# THE STÄDELSCHULE

## ARCHITECTURE CLASS 2011-12

Prof. Ben van Berkel

The aim of SAC is to contribute to the general advance of architecture while preparing its students for academic and/or professional excellence where their individual resources and talents contribute to the field in practical, intellectual and creative terms.

### THE PROGRAMME: AIMS AND DESCRIPTION

SAC's academic programme is formulated to respond to new developments that concern the future of architecture.

In this way, the programme is not static but under constant revision so as to include new pedagogical, methodological, technological as much as other types of developments.

SAC's teaching programme is formulated in accordance to developments in architecture where design and construction processes are becoming increasingly complex, demanding the involvement of a larger number of specialists from different professional fields.

These issues intrinsically beg consideration of not only traditional design issues but also how these connect and are

transformed through technological developments. SAC selectively assimilates these by focusing on problems in contemporary design, the creative and artistic development of the individual within the collective setting, and material and processing technology.

In architecture, many of these issues have become coded in how regulating and material geometry are deployed within the design

process. SAC affirms this through the centrality of architectural design and its role within a larger societal context. To this end, the individual Master theses always comprise of three main parts:

- Thesis Project: Architectural proposal based on the individual student's research and experiments.
- Complimentary Thesis Project: Minor proposition on a topic associated to the project thesis - for instance, a thesis proposition on a material-structural topic for a building proposal.
- Thesis Paper: Theory paper

In light of the above, SAC in its entirety bridges the complex, multiparty collaborative reality of contemporary architectural praxis since there is a cultural inclination to see innovation as

an inherently collaborative effort. SAC actively realises the differences inherent to such a set up through its constitutive academic programmes.

SAC's academic programme is based on a two-year structure, the first of which involves a year of introductory training exposing the students to a wide array of architectural problems, methodological design procedures and material and technical issues. After the successful completion of the first year, the students enter the second year in which they respectively specialise in Advanced Architectural Design, Architecture and Performative Design or Architecture and Critical Spatial Practice.

# ADVANCED ARCHITECTURAL DESIGN (AAD)

Prof. Dr. Johan Bettum

SAC's specialisation, Advanced Architectural Design (AAD) is devoted to building design as the crucible of architectural practice and discourse.

It engages with architecture as the sensual and critical interplay of individual and collective imaginations, material forms and inhabitable space, as well as flows of technologically mediated processes and effects and design intelligence. AAD sees architectural design as a vital and vanguard force in the transformation and future of urban culture, capable of responding to and staging individual and collective

interests, private and public desires as well as social and political realities.

In this moment in time, when developments in architectural design are all but consumed by media transmitted fashions and the escalation of public and private investment in the representational value of iconic form, AAD pursues architectural design as a potent and disciplinary specific means to intercept historical flows of formative and materialised ideas and forms of production. In these terms, AAD sees design as the most compelling form of exploring the future of architecture both on a practical and a discursive level.

Architectural design embodies forms of synthesis that are capable of assimilating new technology as well as transformations in the structure of how things are conceived and made. However and more importantly, architectural design is the most potent means to mount a critique and resistance to contemporary conditions inherent to architecture itself (not the least, its modes of production, material practice and conventions of representation) as well as the societal and cultural conditions that impinge on these. That architectural design is synthetic means precisely that it is able to make a coherent overall strategy out of relations between disparate

things in a context, both disciplinary and not, that continue to be vaguely defined.

In doing so, architectural design is both adductive and opportunistic. It gathers flows of information and production and deploys strategies for directing these to realise intentions relating to a desired future. It draws on its own massive, disciplinary specific history that offers precedents for design intentions and formal and informal effects within culturally specific settings. It is adductive in how it focuses lessons from a wide spectrum of historical flows, building specific knowledge and technologically driven design procedures to effectuate its immense potential for production.

In AAD, this condition is addressed through architecture's intrinsic materialist and aesthetic foundations. Design thinking and practice infuses this aesthetic materialist basis with a projective value 'to use and transcend today's constraints for tomorrow's possibilities.' Thus, architectural design is hypothesis-driven; it employs conjectural strategies to '[make] use of new and emergent possibilities within its own process of production.' Lastly, architectural design is both

inquiring and value-driven. It is willing to address and 'explicitly engage with its audience.'<sup>1</sup>

## 2011-12: STREAMS OF URBAN MATERIALISM

During the academic year, 2011-12, SAC's AAD will continue its commitment to architectural design and new forms of materialism to investigate streams of 'urban matter.' In its built form, architecture channels enormous flows of materials on every level of human occupation and consumption. It does so not only through its own construction, but in particular in the way that architecture accommodates individual and collective human life.

In this sense, urban materialism comprises an indefinite range of flows that can be addressed as matter, information, productive force and through human consumption. As examples, only food and waste go a long way to illustrate complex material fluxes and how our lives are in part organised around these streams, intervene on and mingle with them. The research questions that AAD will pose are broadly speaking: how architecture is affected by select forms of urban

materialism and how it can engage with these? The issue soon becomes how architecture as individual building complexes integrates in a larger network of material and productive flows and how this settles the form and space of a building into a vast political and urban context.

AAD will initially pursue these questions in a generic sense, drawing on a series of specific texts that address materialism informed by the writings of Gilles Deleuze and others. It will formulate critical positions as vantage points for moving on to a European city and a specific building task, and continue to probe the question of an urban materialism through quantitative and qualitative models for critical design interventions and projective thought.

Based on a platform of conceptual and theoretical models, AAD will address urban materialism as the crux of architecture's contribution to urban culture - far beyond the idea of sustainability, far beyond the fact of materials themselves.

# ARCHITECTURE & PERFORMATIVE DESIGN (APD)

Guest Prof. Dr Oliver Tessmann

The new specialisation: Architecture and Performative Design (APD) is informed by a range of material, constructional, manufacturing and environmental considerations and technologies.

The performance of an architectural design is conceived in its ability to incorporate various requirements resulting from programmatic, functional, structural and environmental aspects in a synergetic and fruitful manner. This specialisation focuses on how computational techniques and processes are changing the

methodological and strategic make-up of architectural design by linking projective and analytical phases informed by technical data in the work process.

Whereas digital tools in architecture continue to be predominately used for representational purposes, APD draws on the transformative role of digital computational processes to bridge the abstraction of geometry with the performative aspects of contemporary and advanced material, technical and constructional systems. Form is not merely driven by subjective design approaches but results from adaptive, evolving processes. These affect architecture in new

and profound ways by enhancing its environmental, functional and aesthetic performance potential.

APD is linked to contemporary advances in theory and practice training students in areas of architectural design that potentially have the most radical and unsettling effects on the traditions of the discipline. The new digitally driven changes to how architecture can be practised and theorised deny the architect the traditional role of 'the master builder' as an individual protagonist and transfer and distribute his or her creative and productive role to a larger team of project collaborators. By implication, architectural design is

carried out in a more complex methodological setting where various forms of feedback inject projective and analytical momentum to the design development.

Computational design techniques are changing the role of analysis in the design process. Digital feedback loops of synthesis, analysis and evaluation establish a process of becoming in which solutions evolve, differentiate and adapt to specific requirements. Complexity is tackled by circular procedures. Instead of a linear cause-effect relationship, circularity creates feedback via signal exchange between effectors (output) and sensors (input). The computer becomes more than a mere representational machine. Its formalised systems are not inscribed into mechanical cogwheels and step reckoners but provided as a string of symbols based on a certain syntax. Scripting, programming and parametrics help to access this layer of description where the algorithm (the machine) and the data are represented with similar symbols and syntax. These processes create the conditions for the digital mediation of design emergence through evolutionary structures. Furthermore the simulation of material properties and structural behaviour enables designers to integrate

constraints and transform them into design drivers.

APD revolves around these novel paradigms and conceives architecture and its design processes as a complex system which is comprised of sets of elements and their relations whose behaviour is unpredictable. The system properties are not defined by individual elements, but rather emerge from intricate interaction without any top-down control. Collaborative design demands the negotiation of multiple design criteria in these larger systems that account for increasing number of elements and relations. Thus, APD is actively engaged in relocating the architect's role as a creative designer in an emerging field of technologically driven changes.

#### 2011-12: NEGOTIATION PERFORMANCE

APD equips the next generation of architects with an understanding of how material, technical, manufacturing and constructional systems can be utilised as design drivers with a particular focus on how performative potentials are embedded in system organisations on scales hitherto inaccessible and invisible. These potentials become

realisable through using digital feedback loops of projective design, analysis and evaluation to establish a process in which architectural and structural solutions evolve and adapt to meet specific project and environmental requirements.

Students choosing to specialise in APD will gain an intimate comprehension of the emerging synthesis of architecture with engineering design, advanced material technology, and technical and constructional systems. They will learn how to execute their architectural design to contribute to all facets of a building project in a financially and environmentally responsible manner.

APD is taught by members of SAC faculty and draws on visiting academics and consultants from a range of associated fields pending the thematic focus defined for the academic year. Various workshops introduce students to digital tools which enable the simulation of structural behaviour and material properties as well as the analysis of environmental parameters. The acquisition of technical knowledge is accompanied by case studies with a specific design brief. These practical workshops are accompanied by seminars that address built projects as case studies, current research and

emerging technologies which revolve around the aspects of performative architecture. Based on acquired technical skills, students will test their design abilities on small projects and complete their Master Thesis with an individual research by design project that integrates a design proposal with a specific aspect of performance in architecture.



# ARCHITECTURE & CRITICAL SPATIAL PRACTICE (ACSP)

Guest Prof. Markus Miessen

SAC's new specialisation Architecture and Critical Spatial Practice (ACSP) navigates architecture as a critical spatial, political, cultural and social tool taking full advantage of SAC's position within the Städelschule.

It draws on the playful and culturally discursive potential of the relationship between architecture and related disciplines, first and foremost art, to reinvigorate architecture with cultural, social and political criticism. ACSP gains from cross-disciplinary fertilisation through intensive collaboration with Städelschule's art department

and a vital interaction of the students.

In its approach to various contemporary topics, ACSP sees SAC's presence in the Städelschule as a privileged position since one aspect of contemporary production in the arts is to pose inquiries along the lines of how critical practices operate. In this context, architecture holds a particular promise since its relationship to spatial domains is inherent to its history and contemporary status. However, much contemporary production in architecture is void of its responsibilities in these terms and unaware of its consequences. ACSP aims to

provide a needed re-injection of a vital, critical discourse to the field.

Can social complexity, antagonistic encounter and critical content exchange be designed? What constitutes the productive transitions of physical scales and programmatic (in-)formalities when it comes to political encounters? When we stage discourse, when and how does the political emerge?

Critical Spatial Practice is understood as a means of rethinking one's professional practice, operation and codes of conduct. Consequently, the singular formal and often self-referential approach of

architecture is being enhanced by a complex field of interests, methods and lines of attack. These utilize a set of tools at various scales to deal with a situation at hand in the most productive yet critical manner.

Architectural history is dominated by publications as a site and test-ground for ideas: at some point, paper was the most radical architectural material of all. Architecture has a very specific history embedded in the production and dissemination of discursive platforms such as books, magazines and self-published fanzines. ACSP understands itself at the intersection of publishing as distribution of ideas – the production of a proactive and self-initiated (public) debate as a test-site for spatial speculation. Students will be involved in the formulation of questions, outlining of possible inquiries, researching and mapping those territories of concern, distributing ideas and content as a proposition.

Within Critical Spatial Practice, the question of feedback is crucial. Its pursuits no longer hinges on the belief in individual artistic production, but depends on often conflictual exchange with likeminded practitioners, collaborators, as well as potential adversaries. Publishing will become a

central tool for students to think their projects through a common format, which will help them to address their concerns to a specific and predefined audience. Within this, students will develop their individual or group projects that form part of a larger yearlong trajectory. Consequently, student work will focus not on a 'final design' but an inquiry and documentation of an experiment, a discursively argued thesis towards a 'spatial condition.' This may result in an architectural scale proposal, a social event, a policy document, an analysis of spatial typologies, or a critical documentation of an existing situation.

ACSP will consider 'space' without necessarily intervening in it physically - trying to sensitise, promote and foster an attitude towards contemporary spatial production, its triggers, driving forces, effects and affects. We will speculate on the modalities of production and potential benefits of the role of 'the outsider.'

The setting up of such borderlines is important as each contributor needs to take a position, which always has consequences. Only when a border is acknowledged, understood and recognised it can be broken, transgressed or (mis)used. By deliberately producing such antagonistic

fields of productive encounters, ACSP nurtures and exploits misunderstandings and a proactive outlook on the value of failure as the starting point of all experimentation. An annual thematic umbrella formulates the subject of our investigation which acts as a test ground on which individuals and groups can experiment.

## 2011-12: CULTURES OF ASSEMBLY

This year, ACSP will inquire the complex narratives around political congregation. What constitutes the space for/of politics? This yearlong project will investigate how to imagine, devise and design a space of politics, both through content-related curatorial questions as well as its potential physical counterpart, differentiating between that which is politics and that which is the political. ACSP will work on themes dealing with the question of how political congregation and struggle has been and is currently being staged, consciously or not, and how alternatives could be developed.

Using the productive conflict between consensual versus dissensual modes of practice as a driving force to develop individual projects, we will think

both through the terms of 'curating content' and 'staging conflict' in order to develop tools that help us define socio-spatial frameworks that can be tested against reality – ranging from transient and informal to highly structured and formal. These changes in scale (physical) and intention (in/formalities) will produce a fertile ground for speculation: if, sometimes, physical space (design) does not matter, what constitutes the elementary components of a political and/ or social forum?

Students will develop a set of comparative critical studies, mappings and individual projects around the notion of congregational zones and territories as well as the social and spatial dynamics of institutions versus transitory settings of debate. Does decision-making take place only within the designed rigidity of the courtroom and parliament or does it emerge in the informal corner of the corridor, between meetings, with a coffee and a cigarette? And if so, how can such processes or spaces be addressed through design?