concrete geometries
the relational in architecture
The idea that spaces and their form affect people seems an obvious statement to make especially by an architect, who’s primary role—one imagines—is to provide spaces for people. But over the last few years there has been surprisingly little discourse on this subject, which has been articulated and largely fragmentary. Architecture seems to be losing sight of those difficult to quantify social, societal, experiential and even human implications of its production.

Concrete Geometries is a research initiative at the Architectural Association School of Architecture. Over the past 18 months we have been focusing on collecting, evaluating and discussing work that critically explores the immediate relationship between architectural form and human processes. This ongoing research explores how geometric aspects of space such as size, shape or relative position of form and figures might be perceived by individuals or collectives and influence their not in an abstract sense but in ways that are real.

The title of this project is a work-in-progress term derived from the notion of concrete as ‘existing in reality or in actual experience’ and ‘capable of being perceived by the mind’. The term ‘geometries’ acting as a surrogate for architectural form or figure. Concrete Geometries is interested in the particular and immediate, and with actual use or practice. It practice shares concepts with Concrete Science (such as the focus on concrete things or in actual contexts). Concrete Poetry (with its emphasis on the visual form of things as producing meaning), Concrete Music (the idea of ‘live’ material) and Concrete Art (in particular its rejection of representation).

The work started with a series of questions, structuring the research into thematic areas which were adjusted and qualified throughout the project. The base assumption was simple and affirmative: architectural form has a direct impact on people’s behaviour such as...

...supporting or subverting space perception and orientation. The perception of depth, direction, volume, shapes, contours, figure/ground, angle relationships, symmetries etc, plays an important part in navigation, identification and orientation processes.

...stimulating psychological or behavioural responses in a viewer/user through particular aesthetic or sensory experiences. These experiences might include different scales (from individual to collective) and can be interpreted as a type of engagement.

...supporting or preventing, propping or triggering individual or collective acts of inhabitation, appropriation, use and other types of direct engagement allowing social situations to unfold, both planned and unplanned. The accurate dimensionalizing of the space in relation to the human body and the specific social situation are critical, the social act itself, however, completely unpredictable.

...representing specific social cultures and as such delineating or breaking down boundaries and hierarchies. A space or architectural form might be read as embracing or expelling, inviting or excluding, assembling, distributing or dividing.

In short, through this research, we started to link the question of architectural form to forms of appropriation, searching for an explicit relational potential in architecture.
or ‘anthropological space’ and ‘geometrical space’ (Merleau Ponty), between a defined form/figure and the dynamics of social and perceptual space, this ever-evolving field of activity, inhabitation and experience?

On page 9 of this guide, Matthias Ballestrem draws on Walter Benjamin, who identifies two ways of appropriating architecture: firstly, through use and habit, and secondly, through visual contemplation.

From the beginning the project was split into two interconnecting realms: A. Geometry and Perception and B. Geometry and Social Processes. These were then further divided into the thematic fields touched on above. Any of these divisions are of course totally artificial and rarely exist in reality.

At the core of this enquiry stands the user/viewer in his dual role: as someone who on the one hand is directly and physically engaged with a built reality through acts of appropriation and use; and on the other as someone who receives, perceives and contemplates—a more removed yet equally engaged relationship.

Recent art practices have managed to involve the user/viewer into their production in ways worth noting. Relational art or ‘relational aesthetics’ experiments with the lasting construction of social processes and sociabilities. Other more visual movements within the art scene are working with the sense perception of art as a collective experience with an implied social dimension.

One of the aims of this project from the very beginning was to expose these different professional practices to each other and allow cross-fertilisation. The projects presented here were collated through an open interdisciplinary call, a highly unpredictable process able to connect knowledge and people beyond one’s well-guarded domain and in the process contained a substantial element of risk—and one worth taking we felt.

The selection presented here provides a cross-section through current art, architecture and design practice preoccupied with relational spatial production.

Projects in the first category play with the perception of the viewer: they range from being perceptually manipulating (Tekuto choreography of the viewer’s gaze, Rusche initiating the viewer to move) to sensually engaging (Span’s erotic and Hofmann’s fantastical spaces, Hutton/Blackwell’s simple shift that changes a visual relationship into an sensual one). Sharing the belief that spaces are only complete when consumed by a viewer, these projects understand perception as an active form of engagement with a social dimension.

Projects in the second category work with socio-spatial forms and the relationships they produce: from social experiments (Cottell, Studio Vermijs) to the generation of social encounters and sociabilities (BARarchitekten, Schiemenz), from social contracts and commentaries (Brandlhuber’s built contract and SMAQs reworking of an iconic ideal) to direct and simple social support (Wittenberg). These projects prove the power of spatial form and its direct consequences on how we live together.

Throughout the research we have been looking for affirmative practice-based approaches rather than critiques. The selection of projects presented here is in no way conclusive, but opens up a debate around the social and experiential values of spatial form—their relational potential—an enquiry that is to be continued.

I would especially like to thank Kathrin Böhm/public works for lending us the title of this exhibition.

Marianne Mueller
Director,
Concrete Geometries Research Cluster
Social Contracts

Legal systems use spatial and territorial configurations to organize how we live together. The basis of this is a type of contract or agreement. Works in this category investigate how societies are organized through spatial and geometric means. This involves an aspect of aspiration—we are searching for utopian rather than dystopian interpretations.

Relational Space

Works in this category are exploring the notion of spatial form as providing literal and immediate support for the unfolding of social situations, the creation of human relations and their social contexts as a practice, the geometry of social environments and the production of intersubjective encounters.

Sensory Engagement

This thematic block includes works that explore immediate sensory experiences, involving the bodily senses, a type of immersion. Dealing with atmosphere and phenomenological presences, perception is here defined as a process of engagement, involving the user/viewer as a participant, a process that might involve a response or might develop a social dimension.

Perception & Cognition

Walter Benjamin argues that the interaction with architectural space happens in a state of distraction (‘Zerstreuung’) or low level of consciousness. For works in this category processes of perception and their relation to geometry are in the foreground. Being revealed to a user/viewer, these often reach a state of awareness.

A white platform takes its levels, pattern and configuration from the accommodation of two different sets of elements and activities: what is given — the site: an empty gallery/the architecture of a period room with its own features and decorations formally, structured through geometric elements: (astroid and ovals) and its definite and possible usages: the presentation, display and dissemination of work through viewing, circulating meetings and debate, and its use as an everyday social space requiring both stasis and movement, seats and steps. A site specific installation by Fran Cottell.
Spatial Production In Relation — or Relational Architecture

by Kathrin Böhm

When I refer to spatial production I mean the extended set of spatial realities, conditions and conceptualisations that are actively addressed, used and implemented through the project. This clearly extends from the immediate physical reality of objects or structures used in the project (such as a stage, a set of tables and chairs, a mobile kitchen or workshop, etc) and includes the social processes which evolve through the use of spatial settings that exist already (e.g., meeting rooms, offices, playgrounds, hanging out spots) and such which are introduced through the project (such as public events, workshops, open meetings, communication structures, etc).

The spatial production can’t be understood as one linear process, but as a conglomeration of socio-spatial aspects which over time generate the particular spatial quality of the project, including different levels of randomness and intentionality. The space is produced collectively but not necessarily communally, and includes different notions of authorship and ownership.

The extended field of such practices seems best represented through an extended terminology, which combines static terms with other attributes, in order to tie multiple aspects together. Extension is an architectural term and typology. To use it to describe not only a physical but also a programmatic and conceptual extension seems to capture what many relational practices do.

I like to think that one possibility is that architects can be involved in developing geometries or built forms that can respond and be generated through the actual complex socio-spatial realities of the everyday. Not necessarily by designing a building - which remains an option - but by thinking about the shaping of the physical alongside other dynamics, and to maybe develop new typologies that we haven’t yet think considered.

Kathrin Böhm is co-founder of public works, an art and architecture practice working within and towards public space.

Walter Benjamin argues that we mostly perceive architecture in a distracted state of mind. Moving through architectural settings, our mind is often busy with something other than the spaces surrounding us. According to Benjamin, of the two possible ways to appropriate architecture, the appropriation through use and habit prevails over visual contemplation… while contemporary cognitive research increasingly seems to imply that although a large part of our interaction with the environment may be going on unconsciously, it will still affect our behaviour. Even if we cannot remember, it matters where we read a book…

…Robert Vischer developed the concept of ‘empathy’ (Einfühlung) in order to describe how by projecting one’s own bodily form into a perceived object, we are at the same time projecting our own soul and emotions. He differentiates between simple dreamlike, relatively unconscious and undifferentiated ‘seeing’ and active, conscious ‘scanning’. Vischer is interested in showing the origins of emotional identification with objects. In this, the unconscious processing of information forms the blurry basis of intense identification…

…Thinkers like Vischer, Wölfflin and Arnheim emphasize the importance of the physical presence of the things we perceive. Independent from our conscious reflection of their mediated meaning our senses will process the available information. Even in a state of distraction the geometry, colour, material and texture of our environment will affect us significantly. Architecture immediately appeals to our senses and is therefore a sensuous experience prior to an aesthetic one.

Matthias Ballestrem is a Berlin based architect researching the relationship of architectural space and the nervous system.
Perception & Cognition

42 Mineral House
Atelier Tekuto

The volume of this small urban house is trimmed from various directions, to distract one’s gaze from the restrictiveness of a tight site near the centre of Tokyo. By shaping the volume into polyhedrons and entangling them in a three-dimensional way, a set of ambiguous spaces are produced, both internally and externally, directing one’s line of vision along divers surfaces, lines and openings. Material variations from opaque/matte to transparent/reflective distributed over the facades of the house act as a further layer of visual deviations, as the light moves over these surfaces.

Atelier Tekuto is a Japanese architecture studio. Photographs: Makoto Yoshida.

Diamante de las semillitas
Jaime Gili

There was a tradition in 1930s Venezuela of visual arts interacting with architecture and the urban space. Vivid geometric patterns along motorways and on public buildings were part of the visual public unconscious and still radiate a sense of optimism. Gili’s intervention in a changing neighbourhood of Caracas builds on this. Painted metal plates are placed around the area of newly built park in a seemingly random way. The work connects the new park physically and psychically to its surroundings and this tradition, aiming to create a positive identification within the collective, affecting how residents perceive their own community.

Jaime Gili is a visual artist based in London. Photographs: Carlos G Rojas.

Safety Yellow
Bettina Gerhold

This intervention aims to transform the spatial experience of an inhospitable underpass in Zurich through the use of colour and geometry. Around the entrances, a colour field allocates space for two user groups, pedestrians and cyclists, splitting the tunnel into half. This field expands, slowly taking over the entire space, when reaching the centre of the tunnel before declining again. The interplay of tunnel and colour introduces a rhythm to the transition. The accentuated movement and the focus onto the center of the tunnel aim to facilitate orientation and ultimately security.

Bettina Gerhold is a colour designer based in Zurich.

Towards Perceptive Geometry
Toni Kotnik

Contemporary digital architectural design is characterized by an understanding of geometry as logico-algebraic text out of which architectural form emerges through the manipulation of data. By looking at the etymological roots of mathematics, this text relates geometry back to bodily experience and the question of spatial orientation. This allows for a perspective onto contemporary methods of quantification as simple forms of measurement and its nonverbal level, on the other a more didactic model of education, practice and research.

Toni Kotnik is a mathematician, researcher and architect.

Sensory Engagement

195 Voussoir Cloud
IwamotoScott Architecture + Buro Happold

This project attempts to defamiliarise and create conflicted readings of normative architectural typologies. Voussoirs — wedge-shaped masonry blocks that form an arch — were created by folding paper-thin wood laminate along curved seams. A digital design and fabrication process enabled the exploration of the spatial consequences of mathematical relationships, such as curvature, number, size and relative position of components. The result has a strong sensorial presence: a light, porous surface of luminous wood pieces. Voussoir Cloud manages to engage its viewer on both a cognitive and sensual level.

IwamotoScott Architecture is a San Francisco based architecture and design practice. Photographs: Judson Terry.
Lux Nova

Easton+Combs

‘Lux Nova’ or ‘new light’ refers to the Gothic invention of polychromatic dyed glass and the emotive potential of coloured light. This proposal for a structure at the MoMa P.S.1 in New York uses arrays of multi-hued polycarbonate blades to enclose spaces of multiple scales of habitation, from collective to intimate. Walking through it, these multi-hued spaces offer luminous atmospheres, drifting dynamically with daylight—a landscape of light and colour—creating temporary atmospheres for contemplation and collective occupation. The project aims at reinforcing the link between collective experiences and social practice.

Easton+Combs are an architectural practice based in New York.

Relational Space

Spatial Production in Relation
Kathrin Böhm/public works

See page 8.

Connecting Corridor
Studio Elmo Vermijs

Connecting Corridor is a temporary architectural intervention between two buildings in the Gerrit Rietveld Academy. The project plays with the notion of personal space and the fear people experience of one another in public places such as subways or tunnels. The new connecting space first gathers, then bifurcates before its two strands unite again. Its cross-section is dimensioned to cause unexpected encounters.

Studio Elmo Vermijs works on the intersection of visual art, architecture and design.

Photographs: Gemma van Linden.

Communal Cinema within the Rings of Splendor
Kai Schiemenz

This walk-in-sculpture for the Pori Art Museum in Finland contained a video archive showing Finnish visual art, architecture and design. As a ‘social experiment’ to see which prevails—visitor functioning spaces; bringing into play conflicting and unusual proximities, manipulating the comparative levels of display of ‘the museum’ content. Occupants and visitors discuss their relative status, within the still functioning spaces; bringing into play conflicting and contradictory power relations. The installation serves as a ‘social experiment’ to see which prevails—visitor or intruder.

Anthony Coleman is a photographer based at Camberwell College of Arts.

Photographs: Terry Watts.

Sports Hall, North London, Canary Wharf
Anthony Coleman

Anthony Coleman’s photographs explore social clusterings in everyday spaces, whether in an infants gym where the protagonists ‘find a space’ to operate independently of each other or in the urban setting of Canary Wharf. The processes that structure these geometries can be practical such as a need to function unhindered or be based on the desire to maintain a personal space. Space and people are rendered entirely dependent upon each other—people’s behaviour is determined by their shifting surroundings but space, too, is provisional: it is human activity that defines, informs and qualifies space, i.e. that articulates it.

Anthony Coleman is a photographer based in London.

Architecture’s Engagement with the Real:
What About the Idiots?
Isabelle Doucet

This text discusses architecture’s critical engagement with the real in the light of recent architectural practice. While critical practice often suffers from ‘design deficits’ and digital practice remains primarily locked within design processes, Doucet introduces the ‘concerned practice’ as possible mode of operation. Thinking architecture through the notion of agency, this leads to an argument for an ‘idiotic architecture’ which enables the emergence not just of events but unexpected events, disturbing events, and surprising events.

Isabelle Doucet is a lecturer in architecture and urbanism at the Manchester Architecture Research Centre.

Social Contracts

Familiar Site
Vincent Wittenberg

The project uses the familiar typology of the garden fence, not to exclude or defend but to enable and announce. In 2009 volunteers from the neighbourhood built an 18m white picket fence around a closed-off demolition site left by a major urban renewal scheme in a working-class neighbourhood of Eindhoven.

Replacing the existing construction fence by an enlarged copy of one of the demolished garden fences changed the appearance of both the terrain and the street and turned an anonymous gap into a familiar site. This simple intervention literally returned the space to the neighbourhood. The act of enclosing it opened it up as temporary neighbourhood park, a new public space for the community.

Vincent Wittenberg is a Dutch designer working with the latent potential of locations.

The many moments of an M85 —
Zenon’s arrow retraced
Lukas Einsle

M85 are ground-launched bomblets which can be dispensed from a variety of cluster munitions, including artillery cargo projectiles, mortars and rockets. The project documents the trajectory of M85 bomblets: from a spot where they exploded (or not) back to their origins. Who are the individuals behind, besides, and in front of it, and what is their relation to M85 and to each other? There is the farmer, the surgeon, the deminer, as well as the engineer, the factory worker, the politician and the soldier. All of them are trying to (re)organise their relation to M85 as well as they possibly can.

Lukas Einsle is a German artist working in the medium of photography.

Anti-Homeless Ramp
Graziela Kunsch & Rafi Segal

The anti-homeless ramp is a jarring intervention in the landscape of Sao Paulo. Designed by Andrea Matarazzo, then Sao Paulo’s Secretary of Services, the ramp was first implemented in 2005. The Inter-American Development Bank, as part of the Central American Rehabilitation Program, funded its design and development. Made out of concrete, the ramp covers the area between the sidewalk and the cover of tunnels/viaducts where people found shelter before. Its surface is sufficiently angled and rough so that no one can sleep on it. The anti-homeless ramp is deliberately practical: it evicts homeless people from the city’s centre. This project was supported by the Programa Brasil Arte Contemporânea, the Fundação Bienal de Sao Paulo and the Brazilian Ministry of Culture.

Graziela Kunsch is a Brazilian artist and Rafi Segal is a US based architect and writer.

Charter of Dubai
SMAQ architecture

Changes in urban form will lead to changes in urbanity. This bold thesis is challenged by re-adjusting the geometry of the Palm Jumeirah, the built diagram of an exclusive luxury refuge, now the basis to imagine a socially integrated urbanity. ‘Reform’ and ‘Reblock’ open up, connect and make permeable, ‘Replug’ open up, connect and make permeable, ‘Reuse’ turns the villas inside out to provide shaded courtyards. If the question is whether social cultures can be patterned through formal configurations of space, the Palm’s straightforward answer is yes.

SMAQ is a collaborative studio that operates in the field of architecture, urbanism and research.

Oderberger Strasse 56
BAR Architekten

This mixed-use building in Berlin uses spatial complexity to encourage social interaction at various levels. Densely packed interlocking living, office and commercial units create a socially mixed community of tenants and owner-occupiers sharing one single
staircase. The building acts as a place of social exchange and contact. Internally, the spatially highly articulated units offer open living and work fields, organised as three-dimensional zones rather than closed rooms. The unusual spaces challenge processes of inhabitation and communication. A ‘second architecture’ of stairs, ramps, sliding walls and cabinetry initiates their appropriation. Access from half-landings allows for small units to be split from the main apartment, accommodating the changing circumstances of its inhabitants.

BAR Berlin (Base for Architecture and Research) is an architecture and research practice based in Berlin. Photographs: Jan Bitter.

326 Brunnstrasse 9

Branderhuber & ERA, Emde, Schneider

This atelier building in Berlin is shaped by legal conditions and their negotiations: it builds on the existing foundations and cell of a “building ruin” that was the result of a bad investment. The found structure is not only included but developed into the new building, setting out its basic plan. A legal document defines boundaries, passages and volumes. This leads to the radical shaping of the attic floor in order to satisfy rights of light of neighboring property. The staggered floors visible in the main facade are a result of their literal alignment to the corners of the neighboring residential buildings. A legal document defines boundaries, passages and volumes. The found structure is not only included but developed into the new building, setting out its basic plan. A legal document defines boundaries, passages and volumes. This leads to the radical shaping of the attic floor in order to satisfy rights of light of neighboring property. The staggered floors visible in the main facade are a result of their literal alignment to the corners of the neighboring residential buildings.

BAR Berlin (Base for Architecture and Research) is an architecture and research practice based in Berlin. Photographs: Jan Bitter.

Private view

Friday 6 May 2011
6.30-8.30pm

Curators private talk and brunch

Saturday 21 May 2011
11am (tbc)

For additional events (tbc) please visit: www.concrete-geometries.net/talks
Concrete Geometries
Research Cluster:
The Relational in Architecture

AA Front Members Room
7–27th May 2011
Mon–Fri 10am–7pm
Sat 10am–3pm

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