

NEW FUNCTIONS OF THE SURFACE

Pushing the Urban Envelope

#materials&products #resilience&sustainability
#naturalresources #infrastructure #mobility #climatechange
#designprocess #connectivity #digitaltools

An Enquiry Programme examining new functions of surfaces, shells,
skins and façades in the urban context

INTRODUCTION AND AIMS

New Functions of the Surface: Pushing the Urban Envelope considers the city as a sequence of layers and conducts investigations using ANCB's cross-sectoral enquiry methodology. This research on the cities' envelope, surfaces and spheres includes and goes beyond façades, roofs and pavements. It serves as a starting point for a societal, technological, cultural and infrastructural analysis as well as a projection into the future.

To display the full potential of the city's surface, innovation and experimentation need to connect to social, environmental and political relevance. Surfaces have brought many new aspects and questions into the conversation on urbanism in terms of comparisons and examples. Resembling the immune system's ability to recognize and change according to a virus or other invasion, we might be able to train a surface design process to adapt. The surface can also negotiate what is needed for human comfort and help finding out if it is something that all people have in common. Furthermore, surfaces tend to be flexible on various levels, therefore the dynamics and aspect of time and temporality are important. Space will always be branded by a group, a function or a possibility: Street art for example is an approach to reconfigure the urban surface.

What implications does this have? Who is the buildings' and therefore the surfaces' user? Can the surface be a zone of friction and interaction between private and public? Can there be a niche for specific tools for maintenance, a so called 'façade cosmetics'? As a means for interaction, we may ask what the façade can do for the city?

PROJECTS SO FAR

ALL GOOD(S) - CIRCULAR FASHION. New Materials in Architecture, Design and Fashion for a Future Circular Economy with the Netherlands Embassy in Berlin

Policy Dialogue: 1 October 2020

ALL GOOD(S). New Materials in Architecture, Design and Fashion for a Future Circular Economy with the Netherlands Embassy in Berlin

Lab Talk: 9 September 2020

Beijing Institute of Fashion Technology: Folding Berlin

University Design Studio: 23 July – 3 August 2018

New Functions of the Surface. Pushing the Urban Envelope with Schüco, Bielefeld

Lab Talk and Round Table: 9 September 2017

From a Vertical Forest to a Forest City. Almut Grüntuch-Ernst in conversation with Stefano Boeri

Book Presentation: 16 March 2016

Materialien für smartes Licht with TSB Technologiestiftung Berlin and Haute Innovation, Berlin

Lab Talk: 29 October 2013

Innovative Werkstoffe für die Energiewende: Energy Materials in Design und Architecture with TSB Technologiestiftung Berlin and Haute Innovation, Berlin

Lab Talk: 13 March 2013

Design and Politics: the next phase #2 On the Surface of Architecture? with Henk Ovink, The Netherlands Ministry of Infrastructure and the Environment, The Hague

Collaborative Project: 28 July 2011

More Than Green! The Added Value of Cradle to Cradle in Architecture and Urban Planning with William McDonough, William McDonough + Partners / MBDC, Virginia/USA

Lecture: 9 March 2011

TouchHouse. Smart Living - Communicating Surfaces with Busch-Jaeger, Lüdenscheid

Metro Lab: 3–6 February 2011

DOCUMENTATION

- Video recordings documenting the events

BACKGROUND

The city of today and its inhabitants are faced with constantly changing challenges by urban densification, digital control, mobility networks, growing infrastructure requirements, new materials, products, social diversity, new working environments and new knowledge. In order to keep pace, intersections between the different disciplines need to be continually redefined, coordinated and renegotiated.

In response to rapid developments, visionary approaches must be formulated and tested on urban elements to create a robust living environment. The city's surface represents, in many ways and through multiple functions, just such an interdisciplinary testing space and area of intersection. This surface encompasses façades and roofs as well as pavements, roads, open spaces, its air and its climate. In architecture, terms like façade and shell designate complex relationships.

Michel Serres' idea of "the house as a second skin" considers the cover or shell of a building as an extension of our "clothing", as a means of interacting with our surroundings. This connection develops in relation to the state of technology, culture and nature, and therefore offers the potential for an interdisciplinary discourse aimed at exploring innovative and new functions for the city. It encompasses areas such as geography and politics, public and private spaces, infrastructures, science and not least digital user interfaces as well as interfaces of technology and the physical world.

Part of the ANCB Theme

RESPONSIVE CITY: Combining Local Knowledge with Digital Systems

The climate emergency, rapid population fluctuations and the increasing social segregation require a behaviour-changing responsiveness based on awareness and responsibility rather than on convenience. We need to reduce the impact of everyday urban life on resources, from the scale of the individual home to the global network of connectivity.

If the use of space, services and resources are to be modified, value sets need to change. Human behaviour and knowledge need to inform digital tools to achieve an integrated approach.

How can digital tools support the design of new living and working typologies that limit material wastage and are more affordable? What role can prototyping play in digitally fabricating efficient building components? How can traditional materials and knowledge be transformed into the digital age?

PARTICIPANTS

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