MEDIATED ARCHITECTURE

VIVID, EFFERVESCENT AND NERVOUS

STÄDELSCHULE ARCHITECTURE CLASS

THE THEATRE OF IMMANENCE
DIGITAL BODIES
ORKHĒSTRA

SANFORD KWINTER
DANIEL BIRNBAUM
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**VIVID, EFFERVESCENT
AND NERVOUS**

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MEDIATED ARCHITECTURE

With the present, second issue of the SAC Journal - entitled *Mediated Architecture: Vivid, Effervescent and Nervous,* the Städelschule Architecture Class (SAC) presents three projects that have been undertaken in collaboration with partners over the last few years. The projects comprise two installations and one research project. Different in scale, duration and nature, they share one distinct feature: They all embrace the use of electronic technology in the form of computer-enabled design processes and - bar one - integrated media. Whereas this presently makes no architectural project spectacular, SAC is proud to present three projects that each respectively reach beyond the run-of-the-mill digitally enabled projects.

Specifically, the three projects are about architecture and not the technology that they engage. *Ben van Berkel and The Theatre of Immanence*, which opened as an exhibition in Städelschule's Portikus gallery late 2007, invited its visitors to an intricate and expansive architectural and urban space that the Canadian theorist and then Städelschule guest professor, Sanford Kwinter, referred to as an 'urban cerebellum.' *The Theatre of Immanence* enabled and regulated events and presences beyond what architecture generally does and beyond its own presence in Portikus through a deep integration of an advanced and interactive light installation, the hosting of a collection of architecture and art projects as well as an intelligent Internet application. In retrospect, it appears as current and interesting today as it did eight years ago.

Orkhēstra was sculptural installation on a public square in Frankfurt and part of the 7th *Luminale*, the Biennale of Lighting Culture, in spring 2014. It had an impressive, week-long presence in the city - attracting a large crowd every day and especially every evening. Conceived as a so-called "media architecture" project, it embodied a design strategy that is a fresh take on the integration of multiple and different kinds of modules at varying scales within a spatialised surface envelope. The envelope was developed with advanced mesh modelling, and its manufacture entailed the detailing and assembly of thousands of parts.

Finally, *Digital Bodies* was an experimental research project undertaken in 2014-15 by SAC's second-year thesis specialisation, *Architecture and Performative Design*, led by Stiftungs- and guest professor Mirco Becker. The project ended with a stunning, classical display of the results at the Städelschule *Rundgang*, the school's annual, open-house exhibition. *Digital Bodies* comprised a processual engagement with digital modelling based on *Maria Immaculata*, a 17th century sculpture held by the museum Liebieghaus in Frankfurt. The form of the sculpture was scanned and analysed with respect to curvature and the results processed by each student in the group to produce highly articulated versions of the same form. Facilitated by the mediation of electronic technology, the experimental research bridged historical and representative form with contemporary and non-representational form in an intriguing manner.

Insofar as these three projects are 'vivid, effervescent and nervous,' they present a vision of architecture that is evocative and dramatic, lively and animated. The projects join other architectural efforts to bring the discipline of architectural design to a point where decades of profound, speculative thinking and practice will result in an architecture that uses technology and philosophical insights in a liberated fashion to engender a new built environment. Its richness will be technologically enabled;

however, its qualities will be per se architectural. Meanwhile, until that day is here, architecture remains highly strung in its anticipation of a future.

The presentation of the three projects includes a series of exploratory essays by different authors as well as extensive visual portfolios.

Reflecting on *The Theatre of Immanence*, which was produced during his tenure as the dean of Städelschule, Daniel Birnbaum discusses Jean-François Lyotard's show, *Les Immatériaux* at the Centre Georges Pompidou in 1985, to shed light on the 'limitations of the virtual' and the extensive physical interface that the exhibition in Portikus formed. Birnbaum's rumination is accompanied by an interview that Johan Bettum did with Sanford Kwinter in 2007. Kwinter had a key role in informing the project and exhibition and gave a lecture at its opening whose manuscript is also published herein. Lastly, SAC faculty members, Mirco Becker and Johan Bettum, recently interviewed Sebastian Oschatz and Mathias Wollin of the Frankfurt-based firm, MESO, about their role in the project and their work in general. MESO provides services in media design and continuous to deliver state-of-the-art projects in the field. *The Theatre of Immanence* is presented with a photo documentation by Wolfgang Günzel.

Introducing *Digital Bodies*, Mirco Becker dwells on the digital methods that were employed to explore the form of the original *Maria Immaculata* in Liebieghaus and variably transform the sculpture in a series of subsequent modelling procedures. Becker critically contextualises these techniques within the contemporary discourse and practice of architectural design.

His piece is complemented by Maraike Bückling's account of the history and splendour of the original sculpture. Bückling is a curator in the Liebieghaus. Ragunath Vasudevan provides the photo documentation of *Digital Bodies*.

Lastly, *Orkhēstra* is presented with respective texts by Mirco Becker and Peter Trummer. Becker again addresses the technical procedures and disciplinary context of the specific modelling technique employed, here a 3D topological mesh. Peter Trummer's text assesses *Orkhēstra* in relation to four key disciplinary problems in architecture, the figure/ground relation, the mass/void problem, the relationship between parts and whole, and, finally, the surface/volume relation. *Orkhēstra's* visual portfolio has various contributors, amongst other Wolfgang Leeb and Satish Kumar.
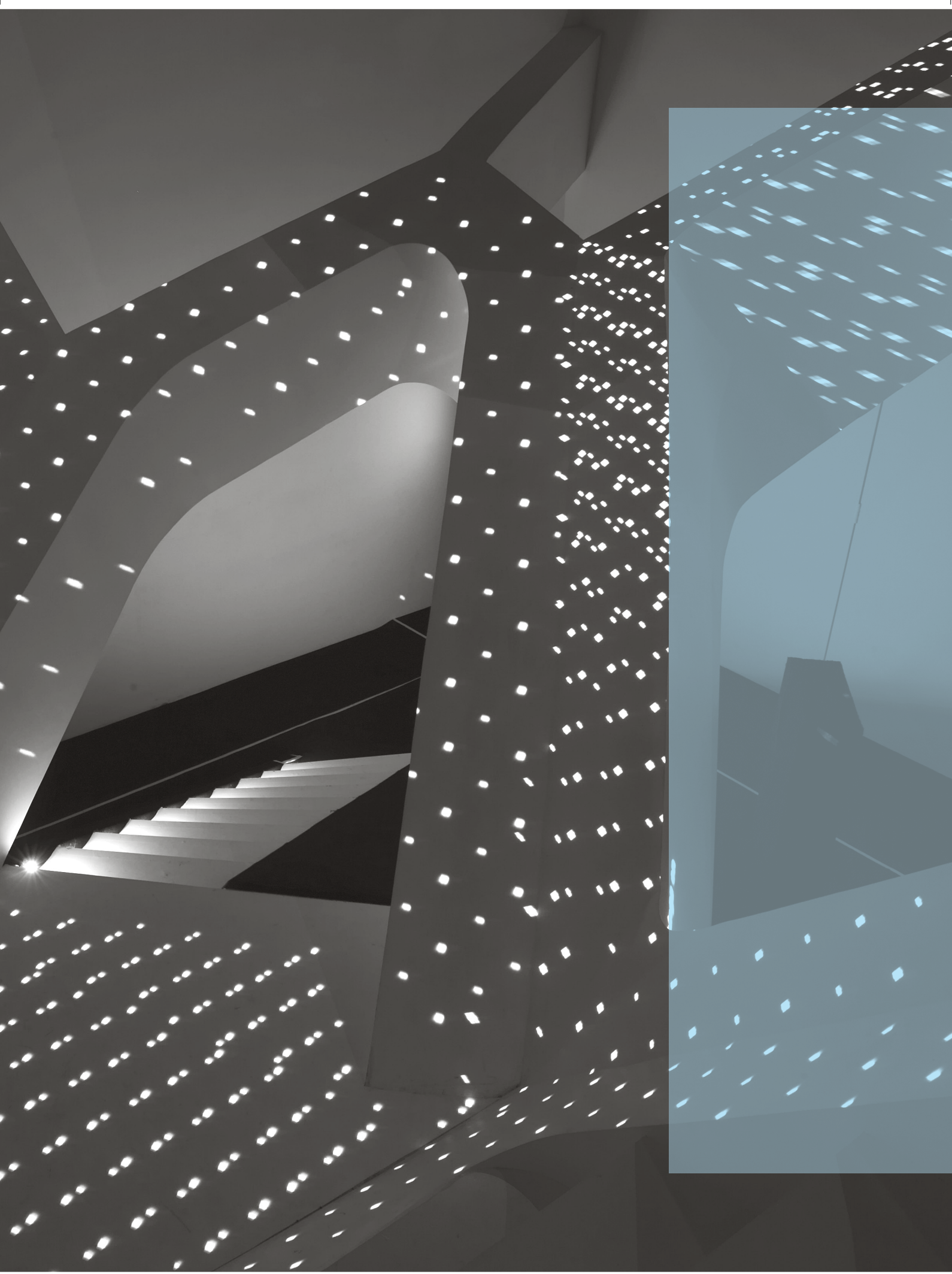
THE THEATRE OF IMMANENCE

INTRODUCTION – JOHAN BETTUM

Ben van Berkel and The Theatre of Immanence was an exhibition by the Städelschule Architecture Class (SAC), a small group of invited artist and architects and MESO - a Frankfurt-based media design firm, at Städelschule's Portikus gallery in Frankfurt from November 25th, 2007 to January 13th, 2008. The exhibition was the conclusion of the one-year long, exploratory research project, *The Space of Communication*, which had been undertaken in collaboration with Deutsche Telekom. *The Theatre of Immanence* comprised of an architectural installation that filled the inside of Portikus and provided a small theatre for various events, a dynamic and interactive shape projection design that embellished the upper side of the architectural installation, a web application that facilitated real-time interactivity between the virtual and physical. It extended the exhibition space of Portikus to the Internet, and, finally, a series of projects and installations by the invited artists and architects. Throughout the duration of the exhibition various events took place in the theatre: Lectures, symposia and hosted talks, art performances, parties and film screenings.

Panorama view from opening in Portikus

THE SPACE OF COMMUNICATION

The background for *The Theatre of Immanence* was *The Space of Communication*,[1] a one year long exploratory project in the arts and architecture that investigated select aspects of communication in the context of communication technology's saturation of society. The project's interest was not technology per se but the conditions for and nature of human communication in its broadest sense. It was conceived in response to how the ubiquity of new electronic media has come to influence the spaces that we inhabit and the ways that we communicate with one another. Already eight years ago, when *The Theatre of Immanence* took place, electronic devices and digital technologies had a strong impact on all forms of communication, for the sharing and exchange of information, goods and artefacts - in short, how we experience and engage with the world.

The Space of Communication commenced in autumn 2006 with a group of invited, young artists and architects from various countries and ended with a curated selection of existing and new works by members of this group being included in the exhibition, *The Theatre of Immanence*. The exhibiting participants were the architects Asterios Agkathidis, Brennan Buck and Igor Kebel, Jonas Runberger and Gabi Schillig and the artists, Florencia Colombo and Dani Gal.[2]

The core activity in *The Space of Communication* consisted of the participating artists and architects meeting in a series of seminars hosted by SAC. Practical work comprised contributions to two issues of the project's three Internet journals, as well as the project participants' respective preparations for the final exhibition. The seminars entertained a keen interest in significant historical projects and achievements within the arts and architecture that related to communication and technology, and it was Sanford Kwinter, the renowned Canadian architectural theorist, who brought these kind of references and topics to the discussions. At the time, Kwinter was a guest professor in the Städelschule[3] and a key consultant to the project. Kwinter guided the discussions in *The Space of Communication* and helped to conceptualise the project around

an understanding of art and architecture as inherent to the production and mediation of social and cultural values through different forms of communication. In the last instance, Kwinter also provided vital theoretical input and ideas for the conceptualisation, planning and design of *The Theatre of Immanence*.

As *The Space of Communication* went into its final phase with preparations for the exhibition in Portikus, Kwinter together with the artist and then professor Peter Hagdahl of The Royal Institute of Art in Stockholm, Mathias Wollin of MESO and SAC faculty members formed the curatorial group for the project's contribution to *The Theatre of Immanence*. By this time, the respective contributions by project members were highly diverse. While some of the projects explicitly engaged with new electronic technology, others took it for granted or merely reflected upon it in indirect or also metaphorical terms. All the projects, however, addressed social and interrelational aspects of communication or spaces of communication. In this manner, the work by project members insisted on art and architecture's contributions to the formation of 'spaces of communication' as well as the human relations through and with which we engage with one another and are embedded in a meshwork that channels information and matter.

THE SPACE OF COMMUNICATION'S JOURNALS

As part of the agenda and output of *The Space of Communication*, the project presented three Internet-based journals to the public. *Journal 1* was published at the end of the third project month; *Journal 2* was launched at the end of the half-term; *Journal 3* was made public to coincide with the exhibition opening in Portikus.[4]

Journal 1: The Atlas presented various content, including an interview with Sanford Kwinter[5] and entries by the project participants for an atlas of spaces of communication. *Journal 2: The Database* was developed by MESO Web Scapes and comprised of an edited and limited database to Internet-pages that directly or indirectly addressed the thematic interests of *The Space of Communication.* Finally, *Journal 3: On Things*
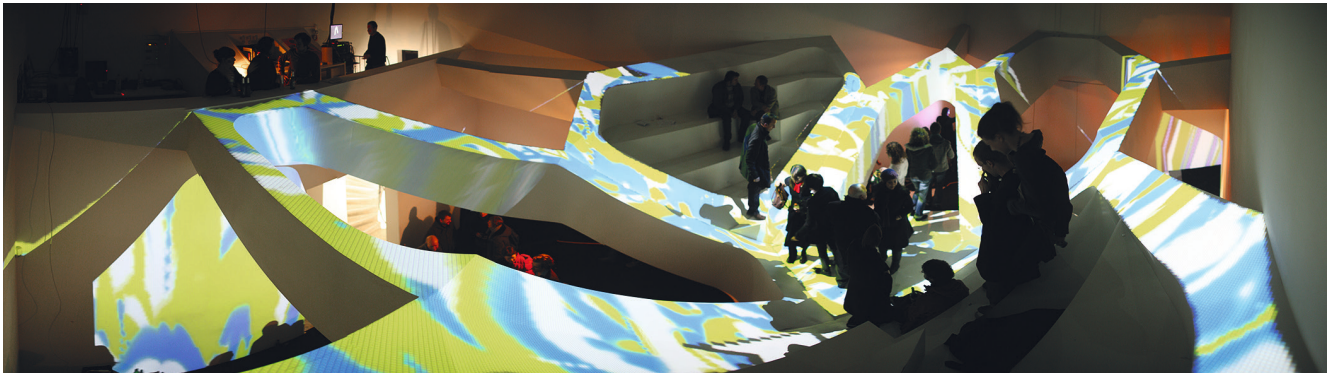
Off Things On was adopted as an integral part of *The Theatre of Immanence.* It was also designed by MESO Web Scapes and comprised one half of MESO's total contribution to the exhibition.[6] *Journal 3* was designed as a web-application that documented and extended the contents of the show in real-time to the Internet. Thus, it added a virtual dimension to the physical space of the Portikus exhibition and offered at the same time a unique and direct medium for interactivity and manipulation of the lighting and sound systems in the physical exhibition space.

MESO Web Scapes' design of *Journal 3* was conceived with respect to an idea of information flow and communication that extended the space of *The Theatre of Immanence* to the virtual realm by offering an Internet location for the exhibition while not presenting a literal documentation or archive of it. Being an integral part of the exhibition project, it formed the virtual node in a continuum with the physical and actual nodes of Portikus and *The Theatre of Immanence*. Computerised technology and electronic media intimately connected these spaces and allowed for interaction between the virtual and physical realms. The integrated, virtual and interactive extension of *The Theatre of Immanence* offered Internet connected visitors to enjoy live visual and auditory feeds from the gallery. By interacting with the visual representation of Portikus' gallery space on the their screen, they could influence the dynamics of the shape projections and leave text messages that were relayed audibly albeit distorted in the gallery. Likewise, through the web-feed - a chat-line so to speak - they could hear the sounds from the gallery, including the live, auditory rendering of their text messages. Hence, the physical, virtual and ambient parts of the exhibition arose from a concerted effort to synthesise different forms of design and artistic expressions.

THE THEATRE OF IMMANENCE

Communication in the widest sense framed the ambitions and scope for *The Theatre of Immanence*. It was conceived as an event-scape, a theatre and a gallery space all at once and aimed to transform Portikus into an interface, a stage or a hub that in turn would offer an infrastructure for public and artistic uses. In this way, the architecture, the theatre itself, would become a piece of infrastructure that was supplied with artistic and technical plug-in components.

In Kwinter's words, *The Theatre of Immanence* would transform the Portikus into an 'urban cerebellum' or 'plane of immanence.' In other words, the theatre were to stimulate, give rise to, generously host and thus coordinate the many events and exchanges that would take place during the exhibition period. The exhibition were to become a theatre-like installation offering itself as an interface to the public for various types of mediated and staged events. This vision for Portikus also made reference to other important, previous events staged by the Städelschule, such as the highly successful *Gasthof*, a weeklong symposium in 2002. In line with this tradition, *The Theatre of Immanence* continued and extended the idea that art and architecture mediate productive and social performances and, by extension, that they become a productive and social operation. At the same time, *The Theatre of Immanence* were to form an interface between the virtual and the real; between the inside of Portikus as well as the inside of Städelschule as a small institution and, on the other side, the city. It were to be an interface between art, architecture and the public.

To achieve these goals, *The Theatre of Immanence* comprised of five integrated parts:

- The physical, architectural installation which was designed by Ben van Berkel, Johan Bettum and Luis Etchegorry;

- The dynamic and interactive shape projection design, named *On Things Off Things On*, by MESO Digital Interiors;

- *Journal 3* of *The Space of Communication*, which was also part of *On Things Off Things On*. The journal was an Internet application which enabled a two-way and interactive connection via the shape projection design and the sound system in the gallery and the world wide web. This was dsigned by MESO Web Spaces;
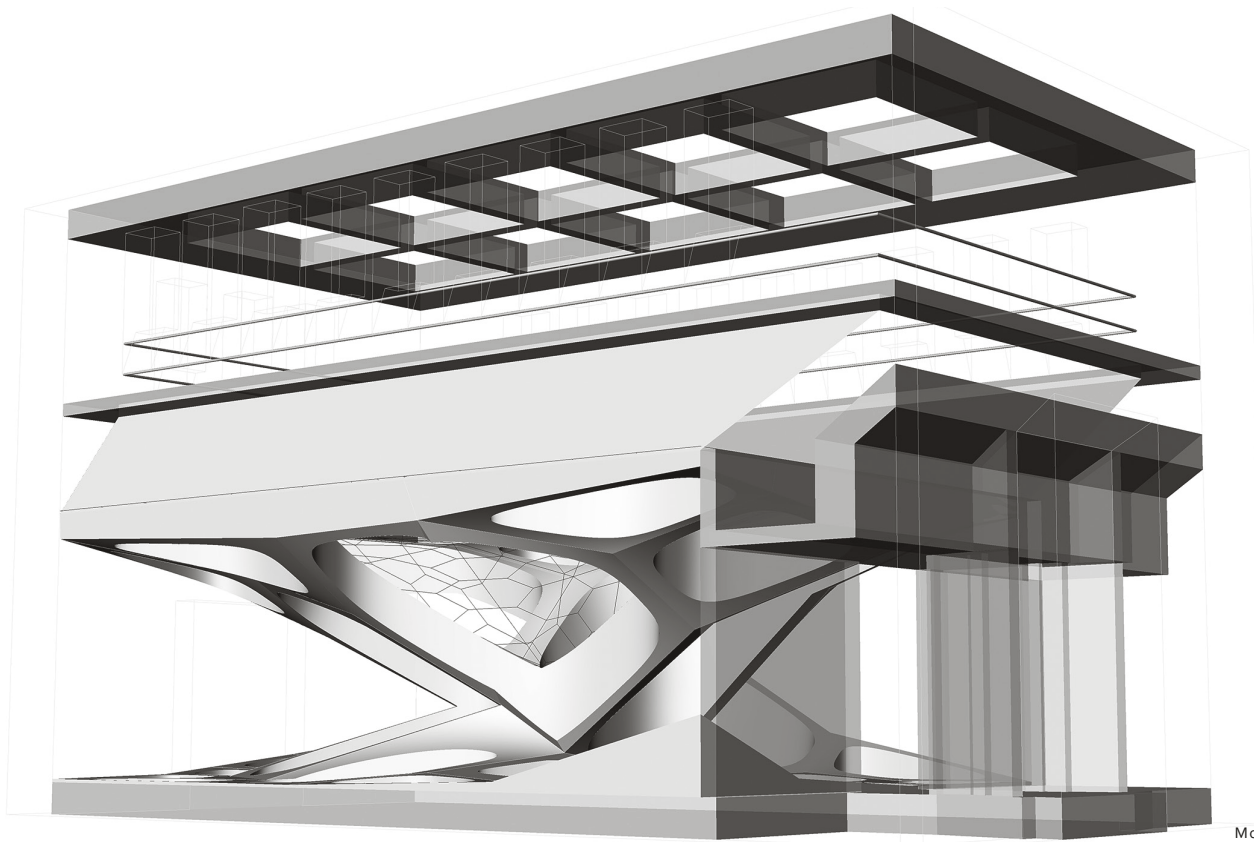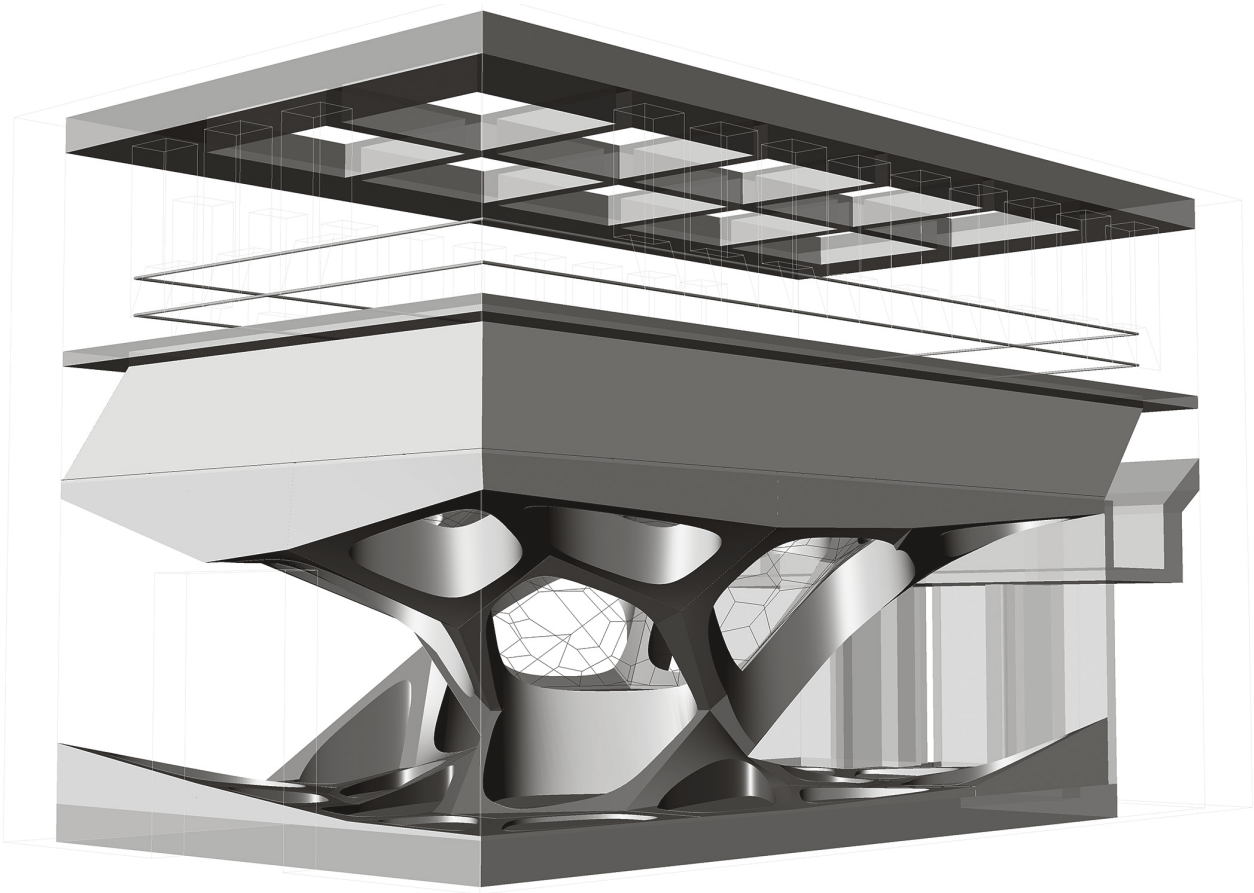
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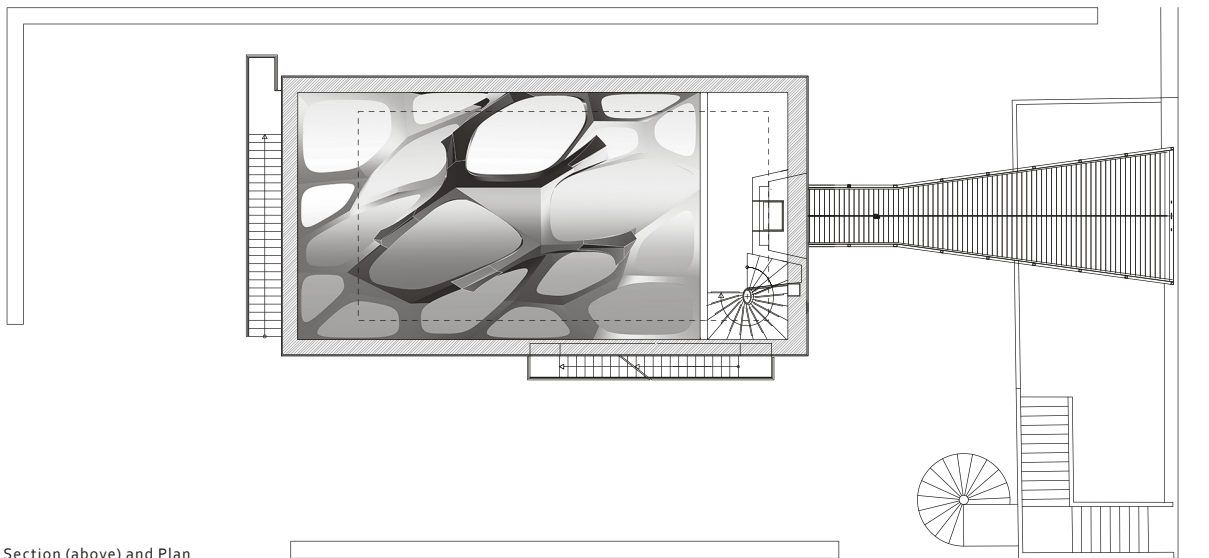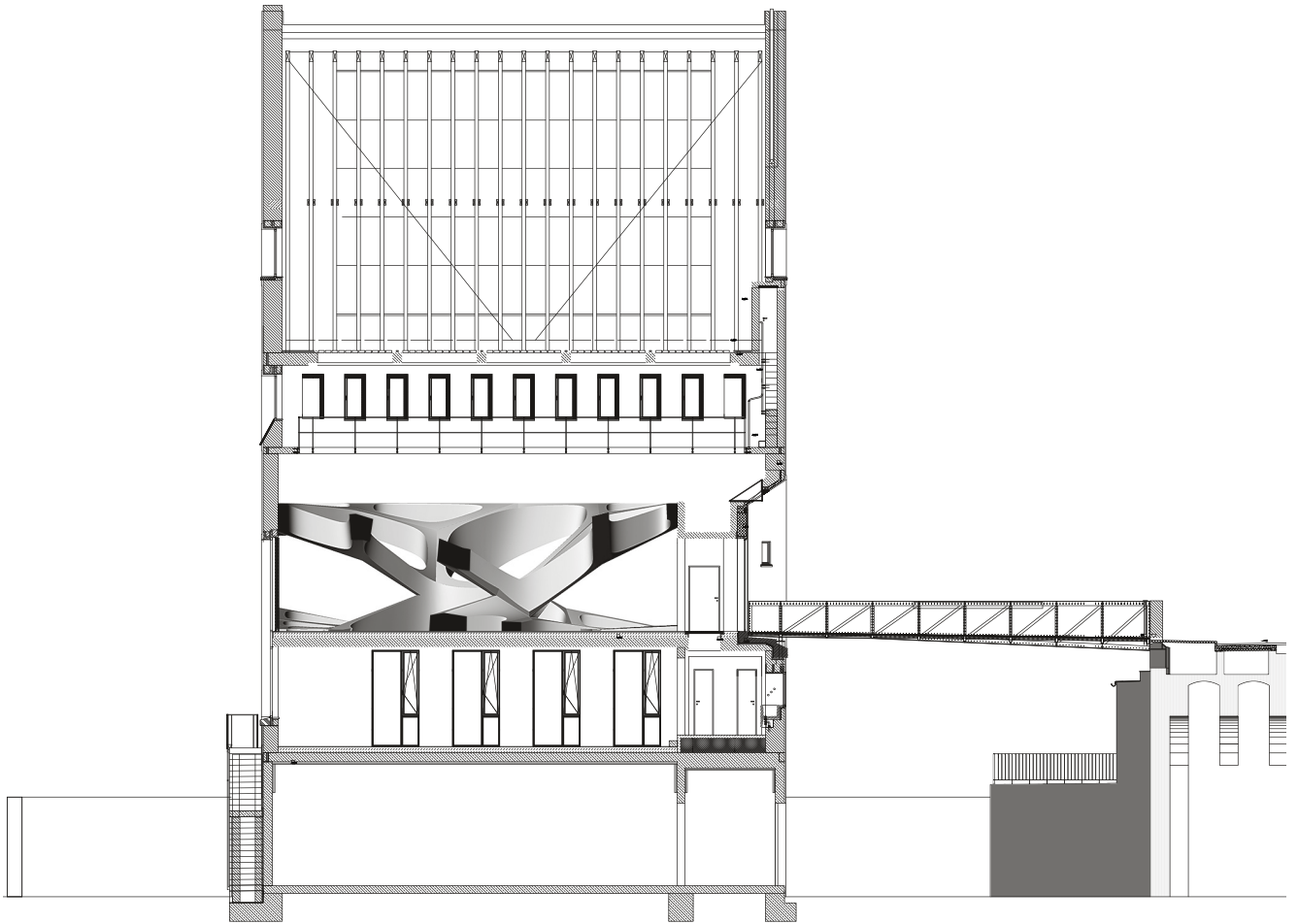
Section (above) and Plan

- The series of projects by the artists and architects who had participated in *The Space of Communication*;

- And, finally, a series of different events that took place in the theatre throughout the exhibition period.

The success of a project as multifaceted and complex as *The Theatre of Immanence* depends a lot on the degree to which its different elements are integrated with one another. The integration of elements rendered *The Theatre of Immanence* a mesh of interrelated and mutually dependent parts, and yet, as a mothership and central hub, the architectural installation was the part around and in which everything revolved. In this sense, Kwinter's 'urban cerebellum' or 'plane of immanence' referred as much to the architectural installation as to the exhibition in general. The architecture facilitated and coordinated the other activities and presented the surfaces around, in and on which the theatre became 'immanent.' In turn, events as well as other elements of the exhibition brought the architecture to life, exemplified by the interactive illumination scheme on the architectural installation's top surface - an example of so-called 'augmented architecture.'[7]

THE ARCHITECTURE OF THE THEATRE

Pending one's referential preference, the form of the architectural installation could be likened to a mushroom, a cup or a tree with the base of its trunk planted at the centre of the floor in Portikus. Regardless of metaphor, the architecture presented a miniature agora or amphitheatre. Writing for Frankfurter Allgemeine Zeitung, praising contemporary design at the end of 2007, the newspaper's art and architectural editor, Niklas Maak, referred to *The Theatre of Immanence* as the nuclear core of a possible new educational architecture. He wrote: 'As a landscape for thinking, the theatre appears as a modern-day amphitheatre.'[8]

From its base, the architecture branched out in all directions, touched the walls of Portikus and horizontally split the gallery in a lower and an upper level. This produced at once the paradoxical effect of dividing Portikus' gallery space in two distinct zones, the lower for the gallery exhibition and the upper as a theatre, yet maintaining a visual, auditory and physical continuity between these. This was accomplished by perforating the volumetric surface whose central, lower part curved down to release its load onto the floor in Portikus. The perforations, twelve in total and produced in a digital model with a 3D Voronoi mesh, rendered the volumetric surface a connective tissue between the two functional zones and provided the stage, the entrance to the theatre from below as well as two openings that were filled with staggered boxes to furnish the theater with auditorium seating.

Nowhere in Portikus was the architecture of the exhibition as evident as with a view from the gallery's balcony above the entrance from the bridge running across the river Main outside. Here, with the architectural installation's volumetric
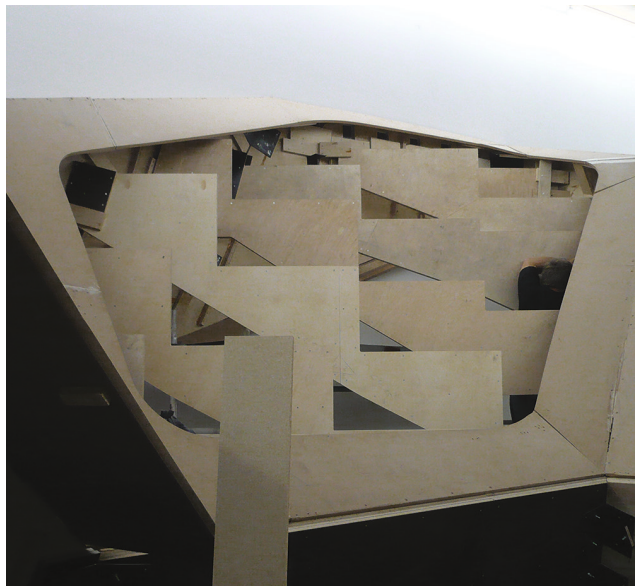
Views from construction in Portikus. Photos: Luis Etchegorry

surface meeting the edge of balcony's balustrade, the visitor's gaze fell on the upper face of *The Theatre of Immanence* which beckoned with teeming life. One were provided with a grand-stand view of events, projection views as well as glimpses down into the gallery space below. Within Portikus, the theatre itself appeared to be floating.

LIVE SURFACES

Conjoint with the development of *The Space of Communication*'s *Journal 3*, MESO Digital Interiors designed a light projection system that elaborated on the architectural installation by dynamically embellishing it with moving and variably coloured image patterns. The combined result of this and *Journal 3* was named *On Things Off Things On* and, as already mentioned, was a case study in augmented architecture that attempted to create a reactive, multiple-mode experiential surface of extraordinary spatial complexity.

Whereas *On Things Off Things On* washed *The Theatre of Immanence*'s white, wooden CNC-produced top surface with multiple, beautiful image sets, the initial idea was to animate the inside of its openings with the shape projections. This idea were to render the architectural surface with a metaphorical, inner life and echo with a specific architectural interest in the depth of surfaces and the minutely scaled, three-dimensionality of textile material systems. The goal was to make *The Theatre of Immanence* appear a more organic, live entity than a piece of traditional architecture. However, this scheme would have required a massive and unrealistic number of projectors to be mounted above the architectural installation and was impossible.

Yet, *On Things Off Things On* was everything but static and made up a synthesis of the time-based and dynamic projection of light and images with the complex outline of a static but curvaceous architectural form. The geometrical congruence between these two was nearly perfect although, admittedly, certain leakages of projected light beyond the surface's edges occurred. However, the result was an impressive relationship between architecture and the dynamic image sets, between architectural form and its decorative or ornamental element. The architecture moulded the silhouettes of the image sets, and the dynamic image sets moulded the detail of the architectural surface by transforming one's impression of it from being an illuminated surface with fixed boundaries to a flowing and undulating area of pulsing light. In doing so, it also called it to life, not only metaphorically but by imbuing it with a temporal, visual rhythm, as if invisible surface folds and inner energy erupted and cascaded across the architecture, making its existence visual in fluent and convulsive muscular spasms.

The activation of the architecture by the uppermost surface being a live, visual datum with an extended life on the Internet, spatialised anew not only *The Theatre of Immanence* but Portikus gallery as well. The relation and interchange be-