14th International Architecture Exhibition – Venice 2014
Freeport Croatia

New Tendencies and Architecture: Abstraction, Ambience, Algorithm

Panel, documentary film, exhibition

Arsenale, Stage E, Friday,
August 8th, 10:00 am – 2:00 pm
Program

10:00 — 10:15
Opening of the exhibition Experimental Art and Architectural Work of Vjenceslav Richter

10:15 — 10:30
Karin Šerman
Words of welcome and opening of the panel

10:30 — 11:00
Jerko Denegri
The (New) Tendencies Exhibitions in Zagreb between 1961 and 1973

11:00 — 11:30
Francesco Poli
Gianni Colombo. Programmed Ambiences and Architectural Problematics

11:30 — 12:00
Margit Rosen

12:00 — 12:30
Ivan Rupnik
The Cyclograph, the Relief-meter and the Critical Path Network: Three Computational Instruments for Projecting in Space-time, 1961–1979

12:30 — 13:00
Discussion

13:00 — 14:00
Projection of the documentary film New Tendencies
Croatian Radiotelevision, 2011
Panel
New Tendencies and Architecture:
Abstraction, Ambience, Algorithm

Panelists: Jerko Denegri (art historian and art critic, University of Belgrade), Francesco Poli (art historian, Brera Academy of Fine Arts, Milan), Maïgret Rosen (art historian, Zentrum für Kunst und Medientechnologie Karlsruhe), Ivan Rupnik (architect and architectural historian, Northeastern University Boston)

Moderators: Karin Šerman (architectural theorist, University of Zagreb), Ivo Čović (architect, Politecnico di Milano), Igor Ekštajn (architect, Harvard University PhD Student)

Documentary film
New Tendencies
Croatian Radiotelevision, 2011

Screenplay: Ana Marija Habjan, Directed by: Vladislav Knežević, Language: Croatian with English subtitles, Filmed in Zagreb, Croatia, and Karlsruhe, Germany, Duration: 60.20 minutes

Exhibition
‘Pop-up’ exhibition on the experimental art and architectural work of the Croatian architect Vjenceslav Richter, member of EXAT 51 and protagonist of New Tendencies

Author: Vesna Meštrić (senior curator, Museum of Contemporary Art Zagreb, Richter Collection)

New Tendencies was an international art movement that developed its dynamic activity and intense experimental research in Zagreb in the 1960s. The movement assembled artists, architects, and theorists from various European countries whose work relied mainly on concrete and constructive art, on an objective language of form, and on examination of visual effects in a wide variety of materials and media. The movement’s agenda was to exhibit and discuss future directions of comprehensive artistic research and experiment, and to examine the theory and practice of connecting art with society. Along with its strongly pronounced social concerns, and demands for a socially responsible artistic and architectural engagement, New Tendencies had a pioneering role in the introduction of the computer as a tool and a generator of thinking and practice in visual arts.

Looking back at these intense artistic experiments and locating their productive resonances in the sphere of architecture is especially interesting today: with the extensive and frequently superficial application of computational and parametric design, architecture’s social agenda is often compromised. The case of New Tendencies might open up new avenues towards understanding the position of architecture in an ambiguous relationship of a creative and socially engaged discourse, and the computer as its expedient tool.
New Tendencies and Architecture: Abstraction, Ambience, Algorithm

New Tendencies was an international art movement that started its activity and intense experimental research in Zagreb in 1961. The work of New Tendencies relied mainly on neo-constructivism, on objective language of form, and on examination of visual effects in a wide variety of materials and media. It was one of the first channels of introducing computer as a tool and generator of artistic thinking and practice. Assembled around Zagreb Gallery of Contemporary Art (today the Museum of Contemporary Art), artists from various countries gathered five times in Zagreb from 1961 to 1973, to exhibit their work and discuss possible directions of future artistic research and experiment, and to examine the theory and practice of connecting art with society.

New Tendencies continued working on the ideas already raised by the group EXAT 51 during the early 1950s. EXAT 51 was a Croatian group of artists and architects that radically changed the position and perspective of art and architecture in Yugoslavia in the immediate postwar years and opened up the way for all future radical visual experiments. Working in the ideologically intense conditions of a young communist country, with socialist realism as the normative aesthetics of the ruling socialist system, the group fought for abstraction and absolute freedom of pure geometrical research. Their aim was to eliminate the traditional boundaries between different spheres of art and their integration into a new ‘total plastic reality’, meant to house and accommodate a new, strong, modern socialist society. Within the period of a few years, EXAT 51 initiated research into possibilities of new visual language in relation to new technologies and media, and opened up horizons of overall new visual experience.

In that way, EXAT 51 enabled New Tendencies to appear as a broad and fully grounded international experimental art movement. Artists around New Tendencies developed programmed and kinetic art, and initiated a series of experiments in visual perception, rendering such artistic explorations a veritable scientific dimension. By the third exhibition in 1965, artists were examining the relations between cybernetics and art, and in the following 1968/69 edition – called ‘Computers and Visual Research’ – dealt further with ideas of information theory and aesthetics.
New Tendencies thus elaborated the topics of objectivity, instability, interactivity, participation, ambience, computer science, incorporating the ideas of an artist as a researcher, and of a viewer as an active participant and creator. Regardless of their intense focus on form, New Tendencies never abandoned their ethical stance and ideas of a close connection between art and society, in their ultimate striving to develop a sort of democratic art. Precisely by evaluating New Tendencies’ pioneering role in the introduction of computers in visual arts, and its manifest demand for socially responsible artistic and architectural engagement, the panel looks back to these intense artistic experiments and locate their significance and productive resonances in the sphere of architecture up until present time. The fact that many of today’s architectural procedures and processes rely on often superficial and vain use of algorithm and parametrically generated design raises questions about the role of the architect and of architecture’s social agency in general. The case of New Tendencies’ might open up new avenues towards understanding of this crucial problematic.

Abstracts of the presentations:

Jerko Denegri / The (New) Tendencies Exhibitions in Zagreb between 1961 and 1973

In the period between 1961 and 1973, five international biennial exhibitions were set up in Zagreb, organized by the Gallery of Contemporary Art: New Tendencies in 1961, New Tendencies 2 in 1962, New Tendency 3 in 1965, Tendencies 4 in 1968/69, and Tendencies 5 in 1973. Each of the exhibitions possessed its specific thematic identity and agenda, and as such was the exponent of specific artistic preoccupations of its own moment. Through more than a decade, New Tendencies exhibitions displayed works in various stylistic typologies: neoconstructivism, neoconcretism, optical and kinetic art, computer generated art, and conceptual art. The work of New Tendencies was often emphasized not only as an innovative artistic practice, but also as a progressive social and political orientation and activity. Considering that, one of the questions that often emerges is: how come that the ground for international promotion of this kind of art occurred precisely in Zagreb, in Croatia, by then a part of the socialist, non-aligned Yugoslavia? No matter how unquestionable and essential was the role of numerous international organizers and participants in the preparation of Zagreb (New) Tendencies exhibitions, the indisputable fact remains that all those initiatives developed on the fertile ground of specific local cultural situation and artistic condition. And within it, along with the distant historical origins in the artistic journals of the 1920s, the immediate predecessors were the art groups EXAT 51 (1951–1956) and Gorgona (1959–1966), whose members were among the organizers and participants of the first three (New) Tendencies exhibitions. Yet, all Zagreb exhibitions owe evenly to the particularly vigorous spiritual climate of the time of their launching – the climate in which it was possible, only there and then, to gather together the artistically and politically progressive circles from both west and east of Europe. Therefore the contributions of the Zagreb (New) Tendencies exhibitions are rightfully
considered as especially valuable European artistic legacy and evidence of a specific and unique historical moment.

Francesco Poli / Gianni Colombo. Programmed Ambiences and Architectural Problematics

Gianni Colombo was the most important artist of Gruppo T from Milan – including Gabriele De Vecchi, Davide Boriani, Luciano Anceschi, Gianni Colombo, and Grazia Varisco – which together with Gruppo N from Padua, and artists such as Bruno Munari, Enzo Mari, and Getulio Alviani were main representatives of the Italian branch of New Tendencies and delivered significant contribution to this important international movement.

Since this panel is a part of the Venice Architecture Biennale, in this presentation I will address precisely the fundamental aspect of Colombo’s artistic research – the one that focuses on the design of unsettling spaces and paradoxical ambiences, by using either optical-kinetic devices or else elementary architectural structures elaborated in such a way to disturb and put in crisis the ubiquitous rational design criteria, relying on a specific ironic approach. Colombo’s research thus goes far beyond the ubiquitous and often too generic definition of the programmed art.


Around 1965 the artists and theorists of the New Tendencies admitted that their project ‘Art as research’ had failed. They didn’t succeed in establishing an economic alternative to the capitalist art market, and instead of getting research results through scientific experiments they had only staged an imitation of scientific methods, and in addition the audience had started to consume their ‘research examples’ as a form of decoration or entertainment. In 1968, after a phase of perplexity, the Croatian organizers of the fourth Tendencies exhibition in Zagreb detected a way out: the programmatic integration of the computer as a means of ‘visual research’.

The embrace of computing technology and its theoretical models by the New Tendencies led to a temporary dissolution of the exclusive concept of art. The differences between art and non-art faded away and allowed for a technically induced unity, a transient alliance of artists, designers, architects, sociologists, philosophers, scientists and engineers. They began discussions that haven’t ended since: about the consequences of a machine that seemed to make the world completely malleable by freeing the creative act of all constraints of material and mechanical skills, about a technology that could transform any object or building in a dynamic, observing and communicating entity, and what is more, to allow for analyzing, simulating, predicting and thereby controlling the behavior of individuals as well as of communities.

Next to introducing the few architectural projects that were exhibited by New Tendencies between 1968 and 1973, the lecture will give a resume of these discussions and show how historical claims of the movement relevant for architecture were reanimated and transformed by the introduction of the computer – the demystification and intellectualization of the creative act, the ‘open work’, the liberation of the alienated individual from passivity and the abolition of aesthetic privileges of the wealthy classes.

Ivan Rupnik / The Cyclograph, the Relief-meter and the Critical Path Network: Three Computational Instruments for Projecting in Space-time, 1961–1979

In 1950, Norbert Wiener, in his book The Human Use of Human Beings, suggested an alternative historical lineage for the computer, by arguing that, rather than evolving from a smaller, mechanical computing device, it could alternatively be understood as a miniaturized factory. In this lineage, organization, and not simply mechanization or electrification, was the key factor in the development of computers and, more importantly, a new kind of computational thinking. The very ‘notion of programing’ had been developed ‘in the factory... through the work of Taylor and
the Gilbreths’ before it was ‘transferred to the machine’. Utilizing this particular understanding of computation, I will analyze three computational instruments developed in Zagreb, Croatia, by two architects and one artist, affiliated, to a greater or lesser extent, with the New Tendencies movement. I will start with Bogdan Budimirov’s cyclograph (1961–62), then move to Vjenceslav Richter’s relief-meter (1963–64), before closing with a variation of a critical path network used by Tomislav Gotovac in 1979. Instead of seeking alternative histories of contemporary computational architecture in these works, I will analyze them as continuations of industrial organizational practices developed by Frank and Lillian Gilbreth on American and European construction sites and factories at the turn of the last century.

PANELISTS

**Jenko Denegri** is an art historian and art critic. He was a curator for the Museum of Contemporary Art in Belgrade from 1965 to 1991, and a professor of art history at the Belgrade University Faculty of Philosophy, Department of Art History, from 1991 to 2007. He was the author and curator of many Yugoslav visual art exhibitions, and wrote monographs for most of their leading protagonists. He was a commissioner of the Yugoslav Biennial of Young Artists in Paris and commissioner of the Yugoslav entry at Venice Biennale. He initiated and was the editor of several professional journals. He is a member of the International Association of Art Critics (AICA).

**Francesco Poli** is a professor of History of Contemporary Art at Brera Academy of Fine Arts in Milan. He also teaches at Université Paris 8 and at the School of Communication Sciences, University of Turin. He has been a curator of numerous exhibitions. He collaborates with specialized art magazines and is a correspondent for the daily newspaper La Stampa. His publications include: La Metafisica, Laterza, 2004; Minimalismo, Arte Povera, Arte Concettuale, Laterza, 2011; Il sistema dell’arte contemporanea, Laterza, 2013; Arte moderna. Dal postimpressionismo all’informale, Electa, 2007; Arte contemporanea. Le ricerche internazionali dalla fine degli anni’50 ad oggi, Electa, II ed. 2011; La Scultura del Novecento, Laterza, 2006; Postmodern Art 1945-Now, Harper Collins Publishers, New York 2008.
Margit Rosen is a researcher and curator for ZKM Center for Art and Media Technology, Karlsruhe. She worked as curator for the lothringer13/halle, Munich, taught at the Department for Digital Media at the HfG, at the State Academy for Art and Design Karlsruhe, and was a visiting professor at the Academy of Fine Arts Muenster. She has published on the history of photography, contemporary arts and computer-based arts. She is the author of the book A Little-Known Story about a Movement, a Magazine, and the Computer’s Arrival in Art: New Tendencies and Bit International, 1961–1973 (MIT Press, 2011).

Ivan Rupnik is an architect and architectural historian, Assistant Professor of Architecture at the Northeastern University in Boston. As part of his doctoral work at Harvard University he researches the transatlantic and trans-disciplinary translation of American industrial engineering methods and media to European architectural design practice during two particularly unstable periods, post-World War I and post-World War II. His books include Project Zagreb: Transition as Condition, Strategy, Practice (Actar, 2007), coauthored with Eve Blau, and A Peripheral Moment: Experiments in Architectural Agency (Actar, 2010).

Theory and Practice. He recently organized, together with Alessandro De Magistris, the international conference Nove Tendencije – Art and Architecture in the ’60s: Zagreb – Milano.

Igor Ekštajn is an architect and researcher, currently pursuing his PhD in architecture at Harvard University Graduate School of Design. He is the deputy curator of the Croatian Pavilion at the 2014 Venice Architecture Biennale.

Ivo Ćović is an architect and assistant professor at the Politecnico di Milano, where he teaches Architectural

MODERATORS

Karin Šerman is an architectural historian and theorist, Professor of Architectural Theory at the University of Zagreb Faculty of Architecture. Her work focuses on modern and contemporary architecture and culture. She is the curator of the Croatian Pavilion at the 2014 Venice Architecture Biennale.

Igor Ekštajn is an architect and researcher, currently pursuing his PhD in architecture at Harvard University Graduate School of Design. He is the deputy curator of the Croatian Pavilion at the 2014 Venice Architecture Biennale.
New Tendencies

The film presents the phenomenon of New Tendencies and examines its historical and contemporary meaning and resonances. It was produced on the occasion of a retrospective exhibition of New Tendencies that took place in ZKM Karlsruhe in 2011. That retrospective brought together some of the protagonists of the movement – artists, theorists and historians – who then reflect on their ideas, intentions and artistic preoccupations, and discuss the overall social, ideological and political context in which they operated. The documentary was filmed in Zagreb, Croatia, and Karlsruhe, Germany. Screenplay: Ana Marija Habjan. Directed by: Vladislav Knežević. Production: Croatian Radiotelevision, Zagreb, 2011. Participating artists and theorists include: Peter Weibel, Ivan Picelj, Jerko Denegri, Marija Gattin, Matko Meštrović, Uli Pohl, Julio Le Parc, Karl Gerstner, Getulio Alviani, Darko Fritz, Margit Rosen, Frieder Nake, Herbert Franke, Zdenko Šternberg, Miro Cimerman.

Experimental art and architectural work of Vjenceslav Richter

The Croatian architect Vjenceslav Richter (1917–2002) was one of the founding members of the art group EXAT 51 and a prominent protagonist of New Tendencies. He was also the author of a number of awarded architectural projects and exhibition pavilions, among others the famous pavilion for the World Exhibition in Brussels in 1958, pavilion in Torino 1961, and pavilion for the 13th Triennial in Milan in 1963/1964. Pursuing his engaged social ideals Richter was infatuated with the idea of a synthetic approach to art, architecture and environment. He was led with the idea of bringing together a wide range of design disciplines, including applied arts, industrial design, and fine arts. His efforts in researching the new possibilities for architecture led him to intense explorations in the field of visual and plastic arts, resulting in a fascinating series of systemic graphics and structures. In 1964 he published his intriguing work Synthurbanism – a theoretical project and essay on the overall synthesis of architecture and environment.
Exhibition shows two important points in Richter’s work: one is the Synthurbanism project – the project approaching urbanism as a synthesizing polyfunctional urban environment comprising a multitude of units in form of a ziggurat. The author presented this project in the late 1960s on four rectangular panels, which are today kept in the Documentation Department of the Museum of Contemporary Art in Zagreb, and which are exhibited here. Alongside his Synthurbanism project, in the 1960s and 1970s Richter developed a series of experimental works in the sphere of visual arts. They were all results of his research on the possibilities deriving from the multiplication of a single basic unit – the square. With this work, Richter participated in Tendencies 5 exhibition in 1973, where he presented a fascinating series called Systemic Graphics, which transposed his researches of the three-dimensional space – including that on Synthurbanism – into a two-dimensional plane. The system was made of 3,600 square units that formed a full larger square. Individual units were manipulated using specific algorithms that would each result in a different visual iteration. Four works from the Systemic Graphics are here exhibited.

The entire oeuvre of Vjenceslav Richter, from the EXAT 51 period to New Tendencies and afterwards, constitutes an intriguing example of experimentation in the spheres of architecture, urbanism, and visual arts.