

# ERIKA FÁM: Light-Based Art at the Frontiers of Spatial Experience

Translated by: Eszter Nagy

Visual artist László Zsolt Bordos is a Hungarian artist born in 1977 in Braşov, Transilvania / Romania. He studied to become a painter at the University of Fine Arts in Budapest, then continued his studies at the University of Art and Design / New Media Center: Medialab Helsinki. 3d animation, panoramic and stereoscopic projections brought him worldfame.

## Painting with light

It is increasingly difficult to determine whom we can consider a painter, in the non-classical sense of the word, as today it is not only the brush we can paint with.<sup>1</sup> Visual creators have a considerable number of computing devices and projection technology tools at their disposal that completely redefine the concept of painting. But perhaps we should rather talk about the overlapping of media, transmediality, totalmediality: media live together and complement each other, artworks exist in reversal roles and medium exchange. In his book, *What Do Pictures Want?: The Lives and Loves of Images*, W. J. T. Mitchell emphasizes that media usually live together, more precisely, there are no pure media. The projector as brush enables the creation of such visual works that reach the viewer with the aid of the dispositives of 21st century art (Michel Foucault), the most important matter of which is light. These dispositives basically build on the presence and usability of light. In the works of László Zsolt Bordos light is present as a basic tool, the condition for the creation of the projected image. As the choreographer of the projected image, László experiments constantly with the questioning and reinterpreting of our sensory experiences and visual patterns, rewriting such mental and visual schemas that are based on centuries of cultural history and art history experience. Stepping out of

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<sup>1</sup> The concept of light-painting is often used for photos with long exposure, when the imprint of a moving light source is recorded, but light-painting/ building-painting is also a common Hungarian term for videomapping. In the present case, I use the notion of light painting primarily to draw a parallel between the projected image and the painted image, referring to the extension of the act of painting, to the broadening of its meaning, as well as to the new connotations of the concept. Painting means more than just using the brush to create a painted image.— The term light-painting has already been used to denote film - as motion picture and light-based visual art, Mediawave Festival, for instance, defining itself as „Fényírók fesztiválja” (The Festival of Lightwriters). Even in the 1960s and 1970s, film was regarded as being much closer to literature and writing, than to painting, as evidenced by the fact that theorists were speaking of film language and were seeking for grammatical structures within motion picture works. Today it has become increasingly clear – although the camp of analysts examining the relationship between film-literature, film-language has not completely disappeared –, that film represents primarily a form of visual art, and even though in many cases it builds also on narrative structures, in nature it doesn't follow the same rules as language or verballity.

schemas is not a newfangled mission in the context of visual art, respectively, fine art. Vexierbild (picture-puzzle) or trompe l'oil tried to dislocate us from our visual frameworks, but the same was the aim of op-art, the two-dimensional creations of which conjured up the sense of the third dimension, just like the all-time perspective representation, which is also the visual instrument of this extended spatiality. György Kepes' light walls and László Moholy-Nagy's experiments with light and photography were in a sense the forerunners of Bordos' motion picture experiments. The majority of his works are constituted by building projections, 3d mapping, but he often elaborates visual backgrounds for stage productions and presents his light-based installations, objects in the framework of individual and group exhibitions.

### **Motion picture architecture**



2015 Reverb – ZKM, Karlsruhe / Photo by: ZKM

László Zsolt Bordos represents one of those experimenting artists - in international context, as well –, who have been testing the frontiers of the projected image. The light-painted surfaces that are filled with visual content by Bordos' artworks are diverse: during the architectural projections<sup>2</sup> non-homogeneous building façades of different magnitude<sup>3</sup> constitute the starting point to which the sight, the projected work is adapted. The manifold façades function as 3d frameworks that technically speaking mark the thresholds for the creative work. The conditions are also quite diverse, since a Baroque church offers a completely different structure, than a Bauhaus building. The frame here is nothing like the standard picture frame, namely, the four-square/ rectangular surface

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2 In Gábor Bódy's film *Narcissus and Psyche* (1980), as a quasi-precursor of videomapping, he created a projected motion picture scene, that recorded the façade of a building, capturing and speeding up the imprint of changing clouds and shadows.

3 László Zsolt Bordos is an exponent of monumental visual art: in the case of projections on buildings, the projected image may as well cover a surface up to thousands of square meters. In 2006, there was a paradigm-shifting screening at Sziget Festival, during the Radiohead concert, where Bordos projected onto nearly 40,000 people standing on 800 square meters.

demarcating the shape of the picture/ painting/ photo on the wall or that of the monitor/ cinema screen. The wide variety of building façades represent a particular frame pattern, that is to say, a two-dimensional surface. Most of the time, Bordos' projections appear on non-homogenous, divided, disjointed, three-dimensional surfaces, that always have their specific topography. Building façades provide a basic structure to which the creator needs to adapt. László Zsolt Bordos elaborates, in fact, a visual/ motion picture architecture, as he redesigns the existing visual structure of the building, conferring a new visual experience. On the one hand, he brings to life the building façades, on the other hand he faces us with a structure in constant change and motion, which is all the more enthralling in terms of reception and our experience as viewers, as we conventionally postulate - setting off from our practical experience -, that a building is a stable, permanent construction. The visual experience of the motion picture on the façade reinvents the building for the duration of the projection, which thus receives a new ontic structure and becomes – as the subject of animation - an enlivened monumental artwork. In most cases, the surface used for projection is constituted by renowned architectural structures, that are themselves significant pieces of art. The intersection of architecture with the projected image results in the coexistence of two specific visual forms, creating a collaborative system of a passive and an active visual medium.

With his architectural<sup>4</sup> - and panoramic projections, Bordos has reached all the way from Los Angeles to New York, from Dubai to Paris, from Geneva to Cologne, from Shanghai to Moscow and of course Budapest. Bordos was also credited in 2012 with the world's first stereoscopic building projection at the *Mapping Festival* from Geneva. To him can be attributed, at the same time, Europe's first permanent outdoor 3d mapping onto the walls of Bréda Mansion from Lőkösháza, which since 2013 onwards would recommence every night at sunset.

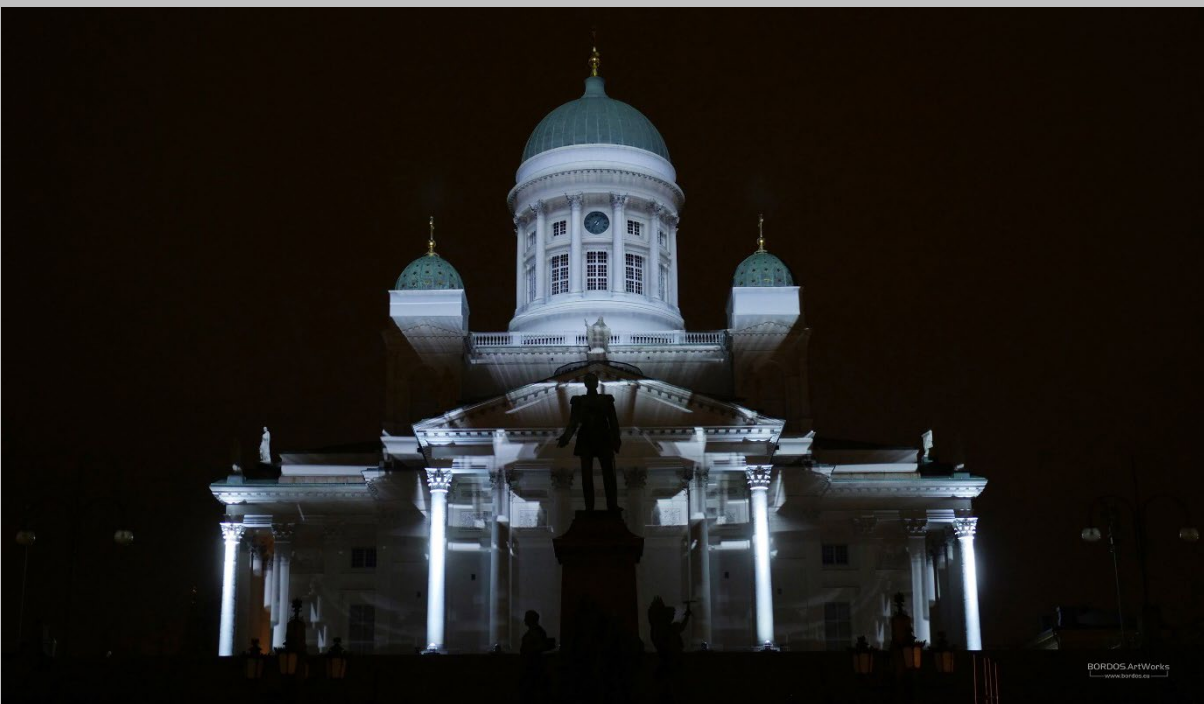
The most significant projections over the past years are the following: in Rome (2018) he resorted to the building of Colosseo Quadrato in the context of the *Lux Formae Festival*, in Helsinki (2018) he presented his work *Konstellatio* at the *Lux Festival*, whereas at the *Schlosslichtspiele* from Karlsruhe he displayed his creation called *Memories*. In Aix en Provence (2016), the production *IO* was shown as the closing event of the Victor Vasarely year. Bordos considers that the most accurate formulation of his ars poetica is his work *Escape*, the projection of which participants could follow in 2015 on the façade of St. Ludmilla Church in Prague.

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4 His first 3d projection mapping took place in 2007, at the *Heavent* international projection technology exhibition from Paris.



ESCAPE, Signal Prague 2015 – Photo by: Alexander Dobrovodsky



KONSTELLATIO – Lux Festival Helsinki 2018 – Photo by: Weronika Tylec

A special occasion for him was attending the Adelaide Festival of Arts with his work *A-Synchron*, where he performed alongside such artists as Bill Viola, Tony Oursler, Ryoichi Kurokawa. One of his major works was presented in Mexico City (2015) at the *Festival de*



*las Luces*.<sup>5</sup> In addition to stereoscopic<sup>6</sup> video mapping, he also experimented with holographic<sup>7</sup> projection.



FRAGMENTS – Filux Festival Mexico City 2015, Photo by: Filux



LUX FORMAE, Solid Light Festival Róma 2018 – Photo by: Weronika Tylec

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- 5 The imprints of projections are preserved as video documentation, recorded mostly from a central perspective, - while during a projection there are as many viewpoints and visual experiences, as there are viewers.
  - 6 Stereoscopy comprises such imaging techniques that create the illusion of depth perception when looking at an image. Spatial awareness is achieved on a daily basis in such a way, that our brain processes and puts together in real time two slightly offset images perceived by our eyes. Thus if we present to the respective eye two images captured from two slightly displaced points, a virtual sense of depth is created.
  - 7 Holography represents an image recording procedure based on the wavelike nature of light, which enables the creation of three-dimensional pictures.



FORM & SUBSTANCE, Art Basel Miami 2015, Photo by: Brian Blessinger

## Visuality, rhythm, dynamics

"Architecture is frozen music" – The reason I consider it important to integrate Friedrich Schlegel's clichéd statement in the analysis of Bodos' artworks is due to the motion pictures projected onto the buildings counterpoint the two centuries-old aforismatic finding. Bodos' visual artworks melt the buildings - at visual level. The immobile façades come to life, the constructions gain vitality, the frozen rhythm lives its own life, it becomes reorganizable, reinterpretable and reshapeable. Architecture conceived as frozen musicality is animated by motion, of course, just for a short time, while the video mapping lasts. However, when it comes to Bodos' artworks, we are not only perceiving images, but a continuous acoustic/ musical background, as well. The latter<sup>8</sup> is selected by the artist himself and comprises specific musical collages, which often represent a mere rearrangement of parts extracted from the works of contemporary composers. The musical background is in a consistent rhythmic and structural relationship with the visual context. Audience experience is based on the coherence of musical and visual information, the proper dovetailing of sound and image events being an essential criterion during the creation process. The role of music is particularly important in those cases when László Bodos elaborates visual, projected materials for theatrical or opera productions, where the room for creative manoeuvre is more restricted, since he has to adapt to his concept and musical frameworks received well in advance.

<sup>8</sup> László Zsolt Bodos creates audio-reactive animations. He listens to hundreds of pieces of music during the working process, until he finds the musical composition that inspires him. If he comes across something he likes, he immediately contacts the composer, initiating a dialog and eventually cooperation. With Johann Johannsson he got in touch in connection with his work *Escape*, with Amon Tobin he collaborated on the creation *Reverb*, with Mika Vainio in the context of *Konstellatio*, while with Ondrej Skala he worked together on several audio-visual pieces.

## **Non-figurative animations in the age of technical reproduction**

The projected images provided by Bordos' artworks are mostly non-figurative, building on the dynamics of geometric shapes and peculiar figures. The shapes come to life by means of the motion picture, in many cases anthropomorphiseable configurations appear on the projected surface, the abstract context providing a fairly free interpretative field for the audience. In fact, László Zsolt Bordos creates abstract, animated short films - if we were to categorize his works very precisely in terms of genre. The animations - representing visual rhythm exercises - are displayed in front of the viewers on a three-dimensional surface, the musical component contributing to a large extent to the creation of the audience's experience.

The projected image dates back several centuries, which – with the appearance of *laterna magica* and *camera obscura* – has made its way from the still image to the motion picture. With the advent of film, the multitude of reviewable narrative contents has become part of our daily lives. It was mostly due to the figurative and narrative elements that film was able to captivate large crowds. With the emergence of video art, the nonfigurative, abstract and plot-free motion picture could only reach a very privileged, narrow - often only professional - public. The appearance of VJ (Video Jockey) has given the projected image the opportunity to reach a wider audience with its experimental, abstract, exigent motion picture contents. As an experimental artist, in the first phase of his career László Zsolt Bordos has often tried his hand at video jockeying, bringing unique artworks to the public. The spreading of the projected image began with building projections, which in fact is a peculiar form of street art, where due to the musical background the audience (in some cases thousands of viewers) does not require or search for a coherent story behind the visual material. László Zsolt Bordos' artworks do not aim to meet the tastes and expectations of popular culture, on most occasions the artist rather trying to push the boundaries of the genre.

Between 2006 – 2014 Bordos invited his artist friends: Ivó Kovács, Viktor Vicsek, Dániel Szalkó to participate in the projects, but later on, having a vision of his artistic approaches, he started to work alone in the art projects, since 2015.

The majority of his creations operate with black-and-white image material.

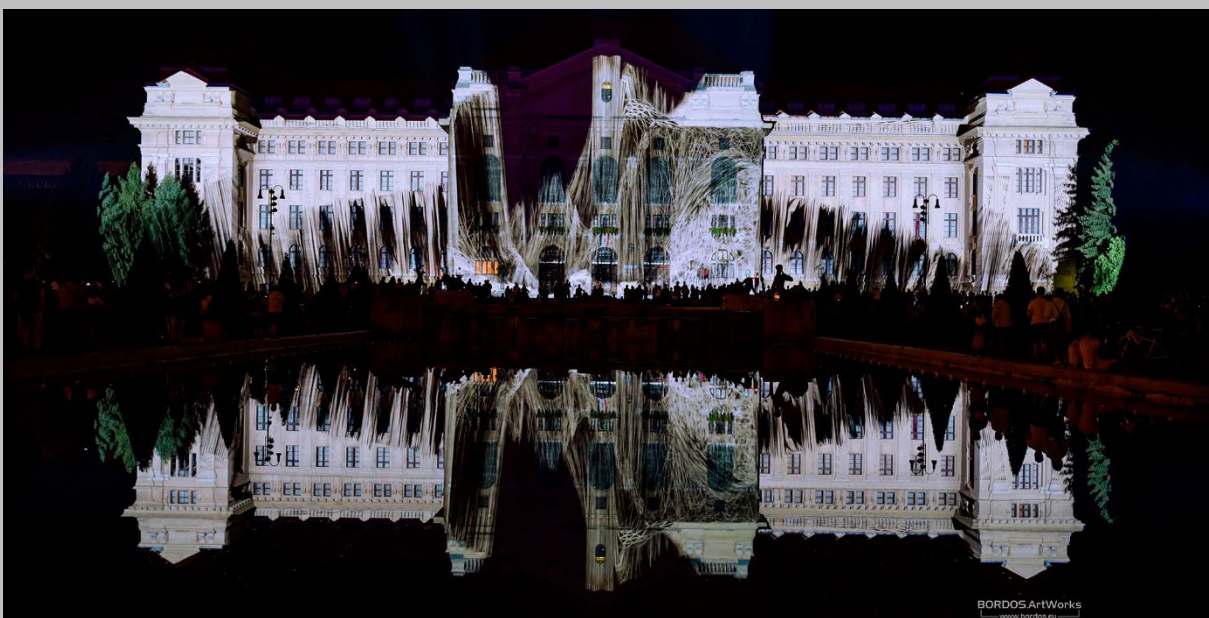
Architectural projections are unique occasions, because they are adapted to the characteristics of the respective building, to the spirit of the place, to the concept of the event, while giving also way to the specific laws of creative freedom. These fairly



expensive productions represent a great responsibility for the creator and the limitations of the one-off event context refer also to the burden of the unrepeatable creation. It is paradoxical that in an era of ever more efficient technical reproduction (Walter Benjamin), building projection - for material and technical reasons - is usually possible for a short period of time. Preparations therefore imply a very precise, technically accurate work, but this does not necessarily represent a constraint for the visual artist, as in many cases it can be interpreted as a challenge.

### **Time-based paintings**

László Zsolt Bordos' artworks are creations that exist in a certain time horizon, they might as well be called time-based paintings. The average duration of the projections is between 7-10 minutes, the time span of the outdoor video mappings being much shorter, than that of a feature-length film. While we can gain cinematic experience in comfortable chairs, the audience of building projections will stand through these visual events, in which music is more of an accompanying phenomenon, than a central element. Compared to an average movie or motion picture, 3d projections are condensed contents, visual concentrates. Architectural projections are dominated by, attention is primarily focused on visuality. Music underpins visuality. 3d projections therefore have not just a physical frame (the surface and topography of the building), but a time frame, too, the difficulty of repeating them setting also a reproductive limit on these artworks.



KONTRASZT – Debrecen 2016 / Photo by: Bódis Krisztián



## Projected images in stage productions

In many cases, the projected image allies with other art forms, in an intermedial context creators building their artworks on the principle of complementarity. László Zsolt Bordos has elaborated 3d visual material for theatrical and opera performances on several occasions, the most outstanding of which were the productions of: the Hungarian National Philharmonic Orchestra (2016) performing Béla Bartók's *Bluebeard's Castle* and *The Miraculous Mandarin* in Budapest and Shanghai, the Moscow Philharmonic Orchestra (2015) performing Rubinstein's *Daemon*, the Sopron Ballet Company (2014) performing *Pan-European Picnic*, the Bárka Theatre (2014) performing *Meanwhile in Kansas*, the Szeged Contemporary Dance Company (2010) performing *Atlantis*, the Atmodance team performing *Legend of the Light*. Bordos has also made the intro to a music concert in 2013, and has worked with Jean Paul Gaultier and Marc Fisher (set designer of Pink Floyd, U2 etc.) as the visual supervisor of a Mylène Farmer production. He is currently working on the background projection of Georg Friedrich Haas's opera, *Coma*, presented at Stadttheater Klagenfurt.

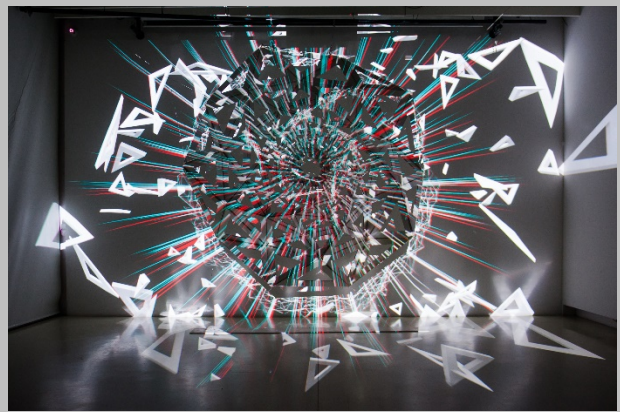
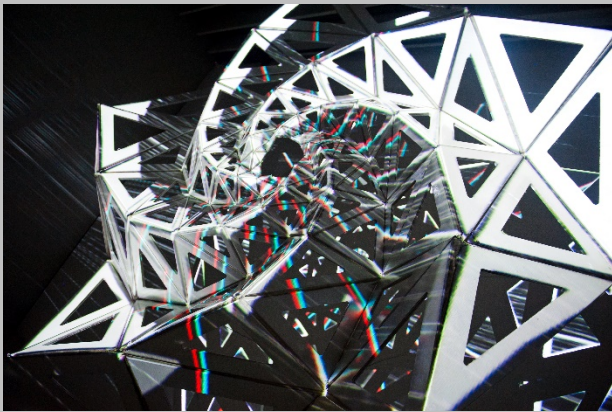


KOMA 2019 – opera, rendező: Immo Karaman / Photo by: Gilles Abbegg

Projections appearing in theatrical productions mostly function as insertions, whereas those used in opera performances are utilised throughout the show, constituting artworks of longer duration. On the stage, the projected image is more than a simple scenery, its

vividness becomes of equal value in visual terms to the actors' work and presense. It is important to note that while architectural projections represent unique occasions, theatre performance reproductivity is determined by the number of productions.

### **Spidron. Object mapping.**



SPIDRON -Bordos László Zsolt vetítése Erdély Dániel szobrára, 2014, Photo by: Erdélyi Gábor



SPIDRON -Bordos László Zsolt vetítése Erdély Dániel szobrára, 2014, Photo by: Bódis Krisztián

In 1979 Dániel Erdély (the son of visual artist Miklós Erdély) created a new geometric shape, the Spidron, then László Zsolt Bordos has elaborated a spatial projection on the Spidron, which provided a three-dimensional, fragmented surface for stereoscopic projection. The installation is performative, viewers seeing a 3d animation, a visual production with musical component. Bordos brings innovation in many ways, the surface on which the projected content appears this time is that of an uncommon geometric element, the spidron, the artwork generating an audio-visual spatial experience. The formal peculiarity of the Spidron, as well as the specific use of light and shadows result in a space modulation. It is only through our actual presence that we can gain the visual

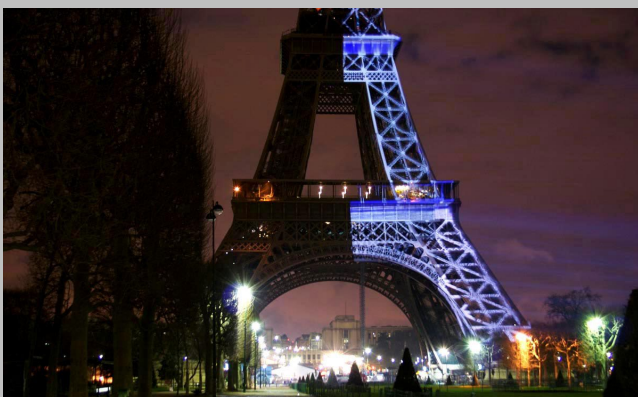
experience of the manipulated space, provided by the 3D glasses during the stereoscopic projection. The viewer has the possibility to move around in the exhibition room, to experience in motion, from different perspectives the visual information conveyed by the projected image, living the illusion of being able to shape the projected image as an interactive part of the artwork. This is all a false impression, because we have come to the limit of our sensory experience, when we need to complete our visual perception on the basis of our existing visual patterns. The spidron-adventure offered by Bordos can be interpreted in concrete terms as a practical manifestation of the *iconic difference*<sup>9</sup> (Gottfried Boehm - *ikonische Differenz*) and the *abstract machine* (Gilles Deleuze - *machine abstrait*), more precisely our visual knowledge and experiences constantly equalise and complement our new pieces of visual information and experiences. Thus, we become part of a space-modulated, augmented reality.

We humans are used to generally understanding what we see. In the case of the Spidron, the viewer is deprived of his usual spatial experience. Our own movement also becomes an interactive part of the spatial adventure we undergo. Security is taken away from the viewer, we are confused, because our real, everyday, space-related experiences do not match with what we now perceive. The viewer is compelled to redefine his spatial experience, because he cannot resort to his visual and cognitive schemas anymore.

László Moholy-Nagy claimed that space manipulation becomes possible through the use of directional light. György Kepes talked about the emergence of a new art form, mediated by computers, projectors and light. These theoretical statements are now present in visual arts as tangible reality due to technical capabilities, and László Zsolt Bordos is one of those creators who enable us, in the context of intermediality, to

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9 In 2009 Bordos video mapped on the non-homogeneous and discontinuous surface of the Eiffel Tower, but experience has shown that the brain fills in the gaps, which confirms now and again the theoretical thesis of Boehm and Deleuze.

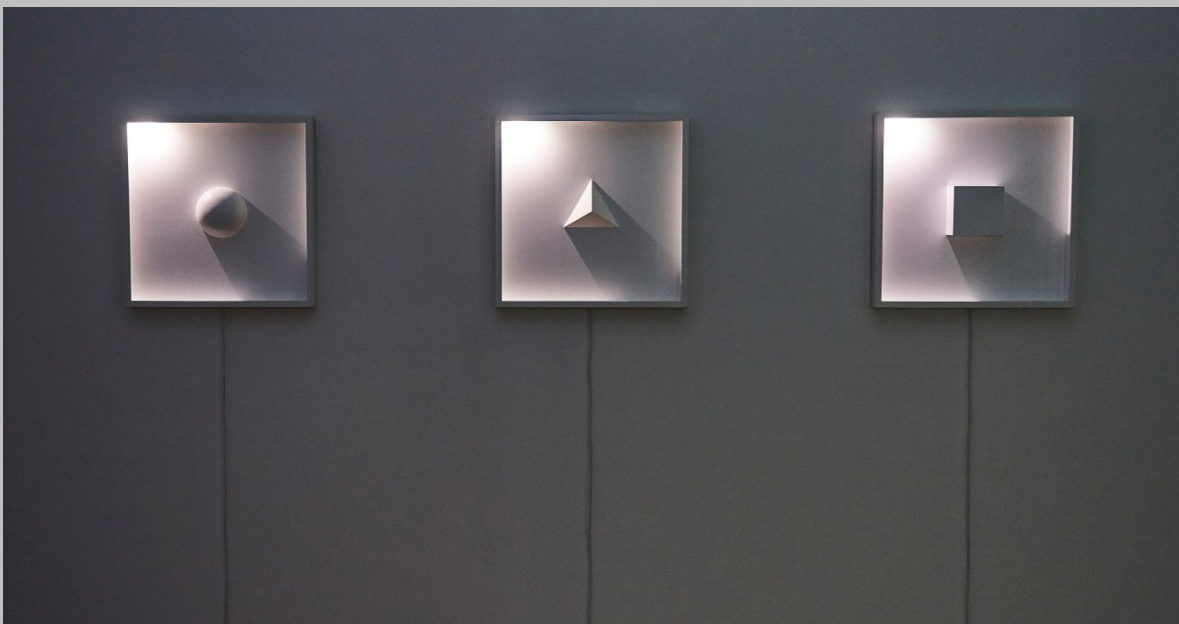


Eiffel torony tesztvetítés, Párizs 2009, Fotó: VLS



experience as real when space unfolds in an unusual, unknown manner. Thus, a trap situation occurs, because the viewer carries space, carries the creation with him. The Spidron is an installation in which the geometric form is not a restrictive framework, as the projected contents are present on the surrounding walls, on the ceiling and on the floor, as well as on the air molecules, on our shoes, clothes, hands and faces, since we can move freely between the light source and the target-surface, thus we ourselves become surfaces, too, participating in the projection as elements of the installation and being both creators and spectators.

Bordos' 2018 exhibition at the Art Museum in Braşov included works created in the contingency sphere of object mapping, alongside the Spidron images with surface relief, geometric shapes and objects having served as surfaces for projection. Viewers were thus able to undergo the natural and manipulated visual experience of light and shadows. The artist went further with the principle of László Moholy-Nagy's light-space-modulator, supplementing it with computer imaging and projected images. At the exhibition we see a triptych, with three compact solids on the framed white surfaces: a hemisphere, a half-cube and a tetrahedron, which are compassed by a directional light beam, creating thus a light-shadow animation, a real-time-based painting, a sequence of light-paintings, since at every moment a different still image is displayed in front of us.



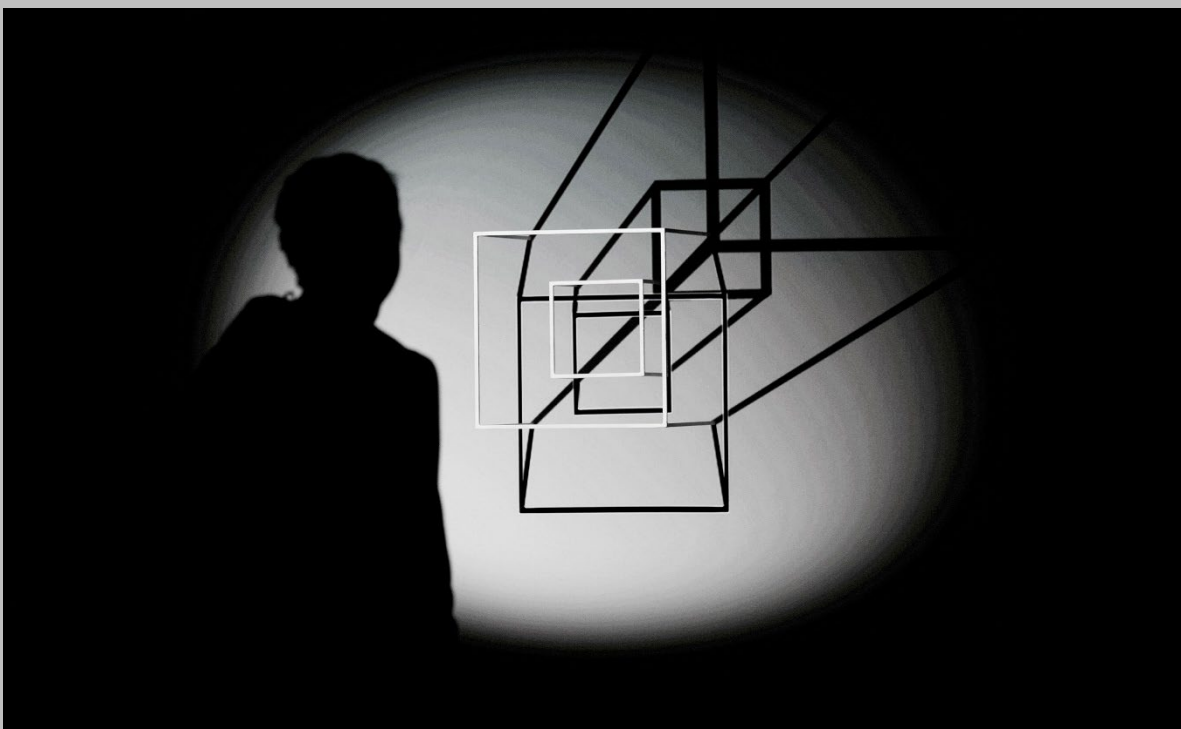
LIGHTFORMS 2018 / Photo by: Andreas Sporn



**Lightforms** are studies of the behavior of primary geometric shapes within a lumino-kinetic environment. The moving light source creates a continuous variable of the visual experience. Due to the movement of light and shadows, the geometric shapes are always brought into new light situations. By showing the ever-changing aspects and patterns of the same forms, the artwork offers the possibility of a continuous sampling. The light source moves clockwise and revolves in exactly 1 minute. The triad of the three shapes inevitably evokes the association of a sundial, reminiscent of the motion of the planets. (description of the artist).

Bordos 'work invites visitors to a meditative experience of three-dimensional Space and Time.

**Umbra Triplicata:** with the aid of a moving light projected onto a double square metal grid, peculiar spatial configurations come into existence, developing into a shadow animation, while the construction used for object mapping is constantly placed in a new context.



UMBRA TRIPLICATA 2014-2015 / ZKM Karlsruhe permanent collection, Photo by: Felix Grünschloss

*The artwork deals with the unique power of light and shadows to modulate space, showing how the relation between the real and the virtual content – combined with 3D*

*mapping techniques – can affect the way we see and perceive the visual experience. The re-projection of the virtual 3D animation onto the real three-dimensional scene, and the interplay that results from the combination of the two components (real-virtual), results in a novel and perplexing visual experience. By changing the position of the virtual light and shadows, viewers can no longer interpret their visual impressions using their accustomed methods, because the projected image modifies the surface and the space it is projected to, overriding our logical schemes of understanding. The projection derails the viewer's customary schemes of perception and urges them to create new processes of interpretation. (description of the artist).*

This artwork\* will next be on display in the exhibition space of Zentrum für Kunst und Medien from Karlsruhe, in the context of the group exhibition *Negative Space. Trajektorien of Sculptures* (April 2019), alongside the creations of Duchamp, Warhol, Hans Arp, Dieter Jung and Otto Piene.

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\* In September 2019 ZKM (Zentrum für Kunst und Media), Karlsruhe purchased the artwork for the permanent collection of ZKM.

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