

**THE IMAGINARY SPACE AS
A FISSURE IN OUR THREE-
DIMENSIONAL WORLD**


IMAGINÁRNY PRIESTOR
AKO TRHLINA V NAŠOM
TROJROZMERNOM SVETE

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The Experiential Museum – Avant-Garde Spatial Experiments and the Reorganization of the Human Sensorium

Zážitkové múzeum – avantgardné priestorové experimenty a reorganizácia ľudského zmyslového vnímania

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Tento výskum spadá do špirálovitej komplexnosti fenoménu modernity, nedokončeného a neurčitého, ale teoreticky bohatého diskurzu o avantgardnom umení 20. storočia a o poznávacej a estetickú povahu architektonického priestoru ako pôsobiska avantgardných umeleckých snáh.

V protiklade s populárnymi a populistickými kritickými výpadmi voči múzeám v avantgardných manifestoch, ktoré považovali smrť múzea za nutný predpoklad skutočného a živého umenia, ktoré by odrážalo novú koncepciu života, múzeum všeobecne, a múzeum umenia obzvlášť, v skutočnosti predstavovalo plodné laboratórium na vytváranie nových režimov architektonického priestoru založených na organizácii a možnostiach reorganizácie celkového ľudského zmyslového vnímania ako apriórneho záujmu moderny.

Estetické stratégie avantgardy sú dobre známe; v umení k nim patria montáž a assembláž, v kinematografii zase montáž a zmena scény. Pokiaľ ide o architektonické experimenty, ich podstatou bolo predstavovanie si a konštruovanie nových priestorov ako dôsledkov novej konceptuálnej, materiálnej a technologickej reality.

Múzeum umenia tak bolo vzácnou príležitosťou previesť inak zdanlivo bezúčelné estetické koncepty do účelnej reality trojrozmerného priestoru a života. Stalo sa novým cvičiskom modernizácie ľudského zmyslového vnímania. Múzeum avantgardného umenia by sme preto mali chápať ako potenciálne nové médium samo osebe: analytický nástroj, zariadenie pre výcvik, premenu, prenos a spracovanie informácií o fyzikálnych, fyziologických a historických (vrátane sociálnych, technologických a estetických) určujúcich faktoroch, ktoré prostredníctvom vzájomnej interakcie vytvárajú špecifickú ekonomiku vnímania v ére moderny.

Historických predchodcov avantgardného múzea možno vystopovať už v 18. storočí vo fenoméne Grand Tour „vzdelávacej“ cesty a v priestorových inováciách divadla a iných efemérnych slávnostných foriem. Ich zárodok nachádzame v rôznych „strojoch na videnie“ – v eidofusikone, dioráme a panoráme – a v 20. storočí ich rozpoznávame už ako vyjasnené priestorové koncepty v dielach ruského konštruktivizmu, nemeckého Werkbundu a neskôr i Bauhausu. Sledujeme, ako sa avantgardné estetické experimenty po druhej svetovej vojne presunuli za Atlantický oceán do amerického kultúrneho kontextu predovšetkým pôsobením Nového Bauhausu. V Európe potom zažili

znovuoživenie prostredníctvom Situacionistickej internacionály, ktorá pokračovala v podkopávaní myšlienky umenia aj samotného konceptu múzea. Ďalej vidíme, že k téme nových múzejných priestorov jedinečným spôsobom prispeli konkrétne osobnosti, ako napríklad Frederick Kiesler a Charles a Ray Eamesovci. Ani jeden z týchto prípadov nepatrí do žiadneho lineárne riadeného diskurzu, napriek tomu produktívnym spôsobom vzniesli rôzne experimentálne postupy a technologické materialistické ideológie slúžiace ako konceptuálne platformy pre novú tvorbu priestoru.

Aby sme pochopili revolučný význam a povahu nasledujúcich projektov múzeí umenia, z ktorých každý predstavuje aj novú a jedinečnú koncepciu priestoru, musíme si uvedomiť, že taká technologická vymoženosť, ako je bodové osvetlenie, bola prvýkrát zavedená do múzejných expozícií až v dvadsiatych rokoch 20. storočia v Sociálnom a hospodárskom múzeu (GWM) vo Viedni. A až v tridsiatych rokoch začali múzeá všeobecne pociťovať potrebu umelého osvetlenia vo svojich expozíciách. Najmä spoločenské povedomie upozornilo múzeá na dôležitosť osvetlenia, uvedomili si, že pracujúci človek má na návštevu múzea čas len v neskorších a večerných hodinách. Len cez rekonštrukciu tohto páľčivého momentu, kedy bolo do múzeí zavedené elektrické osvetlenie ako úplne nový aspekt a prvok, môžeme pochopiť, aké skutočne revolučné a anticipačné boli už predstavené avantgardné expozície a dizajny múzeí. Ako uvádza Michelle Henning, „boli tvarované potenciálom technológií, ktoré ešte neexistovali, a formované chápaním tohto potenciálu, ktoré bolo v niektorých ohľadoch pružnejšie a bohatšie ako súčasné chápanie významu a spoločenskej úlohy múzeí aj nových médií“. Mary Anne Staniszewski v súvislosti s dizajnom výstav európskej avantgardy prvej tretiny 20. storočia zase podotýka, že tiež „prezentovali dizajnové prototypy, architektonické modely a inovatívne inštaláčnne techniky, ktoré boli často jedinou realizáciou projektov a myšlienok inak príliš radikálnych, utopických, nákladných alebo technologicky náročných“.

Príspevok popisuje hlavné typy modernistického priestoru, ktoré uzreli svetlo sveta prostredníctvom experimentov v rámci avantgardného umenia a v umeleckých múzeách. Usporiadáva ich do týchto kategórií: imaginárny priestor, expresionistický priestor, korelačný priestor, multimediálny priestor a situacionistický priestor. Zároveň ich chápe ako päť odlišných prostriedkov reorganizácie zmyslového vnímania. Hlavné koncepty

priestoru sú ďalej rozpracované prostredníctvom teórií ich tvorcov a ilustrované priestorovými realizáciami v múzejnej oblasti s osobitným dôrazom na ich architektonické stvárnenia, ktoré samotné svedčia o rozšírení ľudského zmyslového vnímania smerom k vyšším úrovniam vnímania reality.

Tento príspevok vytvára jedinečný slovník experimentálnych priestorov a jednotlivých techník ich konceptuálnej tvorby, ktorý predstavuje akúsi genealógiu moderného priestoru. Prnáša tak novo zostavenú stručnú teóriu rôznych priestorových režimov v ére moderny.

Podčiarkuje tiež dôležitú pozíciu, ktorú by moderna mala priznať múzeám umenia; sú totiž jej najprirodzenejšími spójencami v úsilí o absolútnu slobodu predstavivosti a sociálnu hodnotu experimentálneho myslenia.

Všetky uvedené priestory sú ponímané ako zážitkové platformy pre divákov a domnievame sa, že práve prostredníctvom tohto dynamického vzťahu medzi divákom a prostredím sa utvára architektonický význam. Všetky predstavené priestory sú postavené na myšlienke interaktivity zúčastneného tela, divák je tu vnímaný a rešpektovaný ako aktívny účastník, a tak sa stáva hlavným cieľom a príjemcom dizajnu. Ten, kto sa má stať novým moderným človekom, si má budovať vlastný vzťah k novému umeleckému priestoru. Táto interaktivita sa rozvíja prostredníctvom vytvárania *vzorcov vnemových informácií*, ktoré predstavujú spôsoby, akými sú vizuálne, zvukové, hmatové a kinestetické informácie vedome navrhované tak, aby vytvárali intenzívne vnemové prostredie.

Aby sa vzorce vnemových informácií vedome plánovali v podobe celkového prostredia s cieľom posilniť vnímanie v reálnom čase, osobitá pozornosť sa venovala obvyklým úkonom a vnemom ľudských tiel a zároveň sa skúmali možnosti ich rozšírenia. To sú spoločné aspekty, ktoré boli ohniskom záujmu jednotlivých štúdií realizovaných rôznymi protagonistami,

o ktorých sa píše v tomto príspevku. Ich experimentálne prístupy boli založené predovšetkým na presnom uznaní fyziologických limitov v protiklade s psychologickou imaginárnou nekonečnosťou vnímania, ktorú možno dosiahnuť prostredníctvom vyspelých technológií, či už je to výroba nových materiálov ako predpokladov pre nové miery a účinky, ako v prípade imaginárneho a expresionistického priestoru, vyspelá automatizácia, ako v prípade korelačného a multimediálneho priestoru, alebo mestské štúdie poetiky každodennosti, ako v prípade situacionistického priestoru.

V úsilí zobrazit nové koncepcie priestoru vyvinuli experimentálne postupy širokú škálu architektonických reprezentačných techník, ako napríklad zrkadlovú axonometriu s ľudskou postavou Ela Lissitzkého, Miesove koláže, Kieslerove štúdie pohybu a času, montážne grafy Eamesovcov, kartografie situacionistov atď. Zároveň však ponechávajú otvorenú možnosť uvažovať o rôznorodých spôsoboch, akými bolo, je a bude možné reprezentovať „samostatné emanácie“ architektúry, a o rozmanitých spôsoboch, akými by vizuálne reprezentácie samotné mohli byť silným modusom operandi, t. j. produktívnym spôsobom fungovania v skúmaní a rozvíjaní stále nových priestorových koncepcií založených na celostných ľudských schopnostiach z fyziologického, psychologického a kultúrneho hľadiska.

Otázky, či a ako sa avantgardné priestorové experimenty pokúšali o modernizáciu ako takú, v zmysle zámernej reorganizácie a zlepšovania ľudského vnímania, tento výskum nepochybne a jednoznačne zodpovedal. Či úspech – tohto jedinečného slovníka priestorov, tohto svedka významného ponímania modernej architektúry a kultúry vnímania nového – mal niekedy dôstojného súpera v podobe náležito modernej ľudskej psychiky a spoločnosti, je znepokojivá otázka, na ktorú ešte musíme hľadať odpovede.

Introduction: The Art Museum and Modernity

The present research is broadly positioned within the spiraling complexity of the phenomenon of modernity, the unfinished and unclear yet theoretically rich discourse on 20th century avant-garde art, and the cognitive and aesthetic character of architectural space as the locus of this art's endeavors.

Contrary to the popular and populist outbursts of “museum-bashing” in avant-garde manifestoes, which saw the death of the museum as a precondition for a true and living art that reflects a new conception of life,¹ the museum in general, and the art museum in particular, in fact represented a fruitful laboratory for the production of new modes of architectural space based upon the organization, and possibilities for reorganization, of the overall human sensorium as an a priori modern preoccupation.

The aesthetic strategies of the avant-garde are well known; they include montage and assemblage in art, and montage and change of scene in cinematography. In terms of architectural experimentation, at its very heart was the imagination and construction of new spaces resulting from a new conceptual, material, and technological reality.

As a consequence, the art museum formed a rare opportunity to translate otherwise seemingly purposeless aesthetic concepts into a purposeful reality of three-dimensional space and life. The museum thus became a new training ground for the modernization of the human sensorium. Hence the avant-garde art museum should be observed as a potential new medium in its own right: an analytical tool, a device for training, changing, transmitting and processing information about the physical, physiological and historical (including the social, technological and aesthetic)

determinants that, through mutual interaction, generate a specific economy of perception in the epoch of modernity.²

The historical predecessors of the avant-garde museum can be traced back as early as the 18th century, in the phenomenon of the Grand Tour as an “educational” voyage, and in spatial innovations in the theatre and other ephemeral festive structures. We can follow them in their infancy through various “vision-machines” – the Eidophusikon, the Diorama and the Panorama – and subsequently recognize them as clarified spatial concepts in the work of the Russian Constructivists, German Werkbund and later the Bauhaus School in the 20th century. And we note how after WWII, avant-garde aesthetic experiments moved across the Atlantic into the American cultural context primarily through the influence of the New Bauhaus.

From this point, they experienced a resurgence in Europe through the European Situationist International, which continued to dislocate both the idea of art and the concept of the museum itself. We can further note that particular individuals, such as Frederick Kiesler and Charles and Ray Eames, made unique contributions to the theme of new museum spaces. None of these cases belong to any linearly directed discourse, but they have nevertheless productively opened up various experimental practices and technological materialist ideologies as conceptual platforms for a new spatial production.

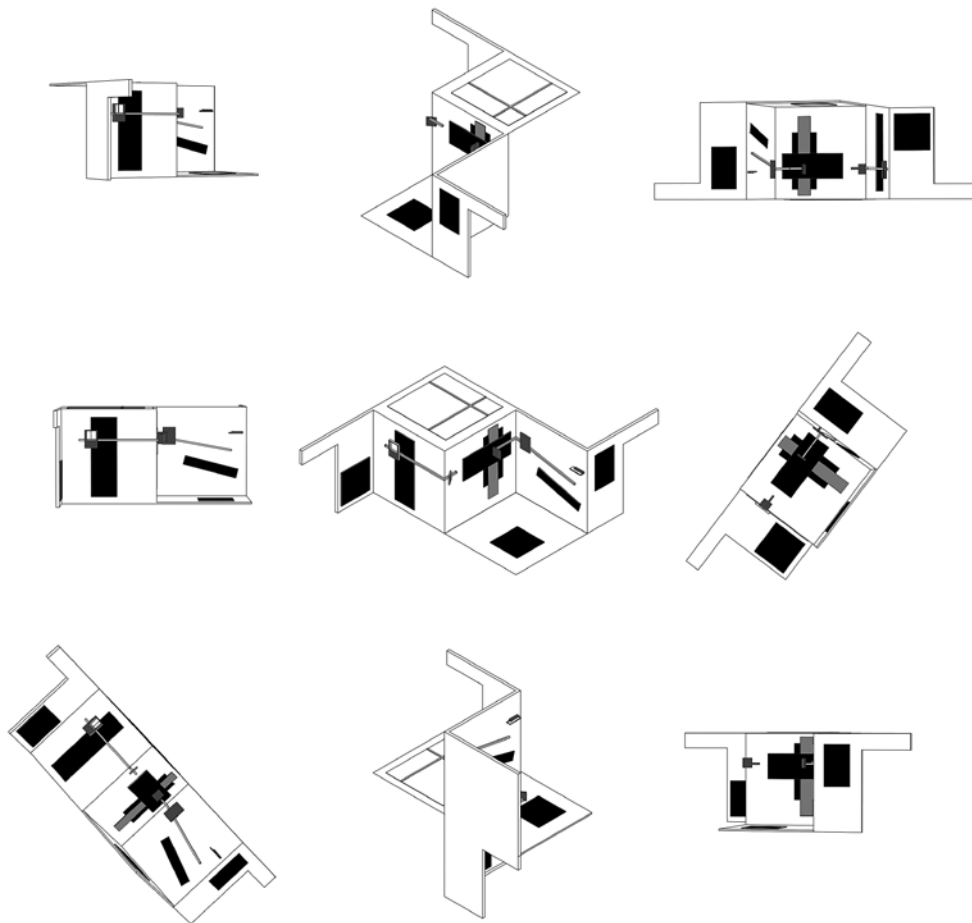
In order to understand the revolutionary scope and nature of the art museum projects discussed below – each of which also represents a new and unique concept of space – we must bear in mind that it was only in the 1920s, in the Museum of Society and Economy (GWM) in Vienna, that spotlights were first introduced as a technological provision to museum displays. And it was only in the 1930s that museums first gained a broad recognition the need for artificial lighting in their displays. Primarily, it was social awareness that drew attention to its importance, in the realization that the working man has time to visit a museum only at later hours and after dark.³ Only by reconstructing that poignant moment when electric light was introduced to museums as a brand-new aspect and component can we understand how truly revolutionary and anticipatory were the already introduced avant-garde exhibitions and museum designs. As Michelle Henning says, they “were shaped by the potential of technologies which did not yet exist, and they were informed by an understanding of that potential, which was in some ways more supple and rich than present understandings of the significance and social role of both museums and new media.”⁴ Mary Anne Staniszewski, meanwhile, in referring to the exhibition designs of the European avant-garde of the first third of the 20th century, highlights that they also “presented design prototypes, architectural models, and innovative installation techniques which were often the only realizations of projects and ideas which were otherwise too radical, utopian, costly, or technologically difficult.”⁵

This paper aims to elaborate the main types of modernist space that were brought to light through experimentation in avant-garde art and art museums. We propose to organize them into the following categories: the imaginary space, the expressionist space, the correlational space, the multimedia space and the situationist space, recognizing them simultaneously as five distinct devices for perceptual reorganization. These main spatial concepts are further elaborated through the theories of their creators and exemplified by their spatial realizations in the museum field, with a special focus on their architectural representations, which in and of themselves demonstrate the extension of the human sensorium towards higher levels of the perception of reality.

The Imaginary Space

In his essay “A. and Pangeometry” (where “A” stands for “Art”), El Lissitzky offers four conceptions of space defined according to the geometrical devices and techniques used in their construction: *planimetric space*, *perspective space*, *irrational space* and *imaginary space*.

The *planimetric space*, according to El Lissitzky, is made up of two-dimensional, flat surfaces. It is represented as a sort of sculptural relief, where the front is read as the main figures hiding other figures behind them and thus signifying the rear parts as imaginary depths. The *perspective space* is an extension of our optical system into another system of flat surfaces. As El Lissitzky explains: “The world is put into a cubic box and transformed within the picture plane into something resembling a pyramidal form.”⁶ It is a closed and finite space, limited to the visual cone that constructs it. The *irrational space*, on the other hand, as a new spatial conception, is the one evident in Kazimir Malevich’s painting of a white square on a white background⁷ and is therefore recognized as the *suprematist space*. It is based on the plastic quality of 0 (zero) belonging to the picture



**THE MULTIPLE IMAGINARY SPACES
WITHIN A SINGLE PROUM**

VIACERÉ IMAGINÁRNE PRIESTORY
V RÁMCI JEDNÉHO PROUNU

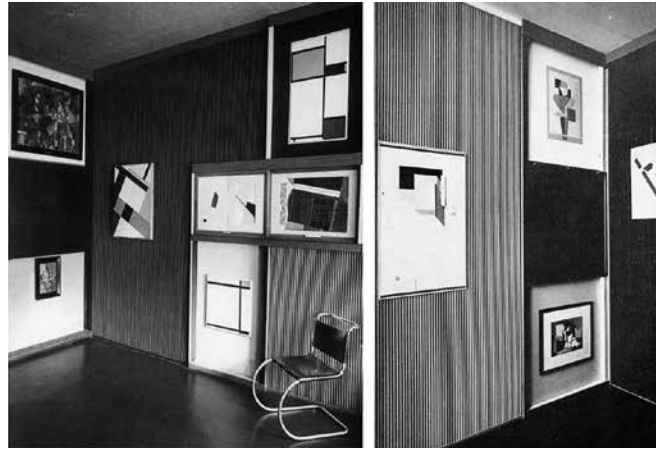
Authors Autori: Spatial concept
illustrated by the Meri Batakoja,
Karin Šerman

surface, as the total body of Art, constructed by the intensity and the position of color planes. In this irrational space, the finite visual cone of perspective is extended into infinity, and hence it can stretch endlessly in front of the picture surface as a positive direction, yet similarly into its depths as a negative direction. This irrational space is white because it consists of the whole spectrum of colors – i.e., the white. The irrational space requests the process of ultimate abstraction in our thinking; it is on the very border of our capacity to comprehend, and represent, space as an abstract and infinite category.

El Lissitzky is aware of our cognitive and perceptual limitations when it comes to understanding notions beyond this irrational space. The multidimensional spaces⁸ that human thought discovered through mathematics but still could not visualize or visually represent are evidence of our limitation and confinement within our three-dimensional existence. All existing conceptions of space are in tune only with our world's Newtonian physical laws and the medium of our five physical senses. We cannot evade and circumvent this, El Lissitzky claims, but we can nevertheless begin by imagining an illusion, a mirage of multidimensionality and of the *ad infinitum*. We cannot physically grasp the fissures in our three-dimensional world, but we can theoretically and imaginatively acknowledge them. This is what El Lissitzky conceptualized as the new *imaginary space*.

His fascination with the imaginary space was realized for the first time in the design for the *Proum Room* at the Berlin Art Exhibition in 1923.⁹ He created objects that interfered with the existing boundaries of the space – the walls themselves – destabilizing them and turning them into “ever-changing forms” depending on the motion and mental capacity of the observer.

El Lissitzky adopted axonometric projection as his experimental tool because of its abolition of the vanishing point. In this way, a new infinite space is represented that can introduce further axes of depth to a two-dimensional surface. He then introduced to axonometric projection a new theory of color perception to underline the disjunction between geometrical and perceptual features, thus destabilizing our habitual cognition.¹⁰ Later, he advanced his architectural



EL LISSITZKY. THE KABINETT DER ABSTRAKTEN (ABSTRACT CABINET) AS RECONSTRUCTED IN THE LANDESGALLERIE, HANOVER, GERMANY, 1968

EL LISSITZKY. KABINET ABSTRAKTOV (KABINETT DER ABSTRAKTEN) ZREKONŠTRUOVANÝ V LANDESGALLERIE, HANNOVER, NEMEČKO, 1968

Source Zdroj: El Lissitzky. [online] 2021 [Accessed 1. 4. 2021] Available at https://monoskop.org/El_Lissitzky/#Abstract_Cabinet

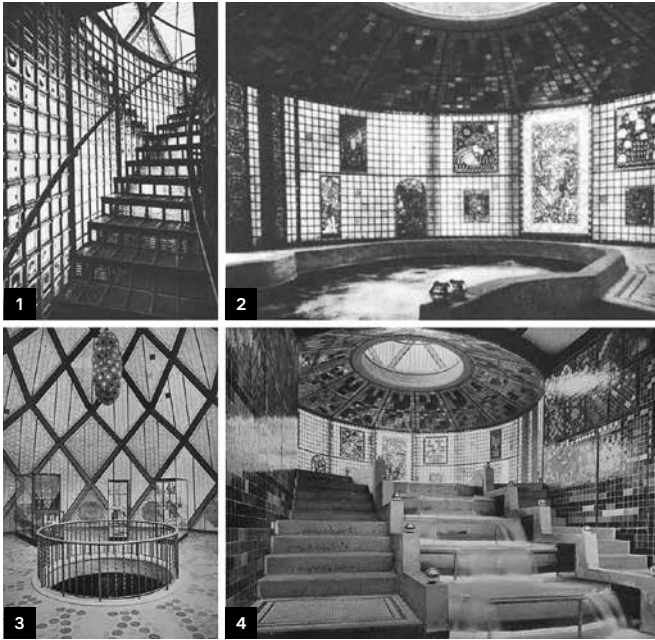
representation of this concept by introducing mirrored axonometry with a human figure. This is a technique involving a simple but substantial deconstruction of the otherwise complete axonometric view, achieved by taking two vertical surfaces and mirroring them in relation to a horizontal surface. In this way, according to the observer's point of view, something that was at one point closest to us suddenly becomes the furthest, when viewed inversely in the mirror-like projection. The human figure – often present in his presentations – underlines our relative presence within a seemingly stable three-dimensional fragment of the world.

The *Kabinett der Abstrakten* (Abstract Cabinet), constructed in the Landesmuseum in Hanover from 1926 to 1928 is the greatest realization of El Lissitzky's experiments and his obsession with possible new conceptions of imaginary space. It is generally accepted as the first permanent gallery of abstract art and another version of his *Raum für konstruktive Kunst* (Room for Constructivist Art) installed at the "Internationale Kunstausstellung" (International Art Exhibition) in Dresden in 1926. El Lissitzky designed gray walls lined with metal slats that were white on one side and black on the other to achieve a shimmering effect and the illusion of changing color within the spectrum of white to gray to black as the visitor moved through the room. Sliding frames were installed in parts of the walls containing artworks which could be viewed two at a time. On the wall beneath the window, there were table-showcases containing four-sided drums that could be rotated according to the visitor's will. El Lissitzky had the idea of installing a "periodically changing electric light system to achieve the white-grey-black effect, but unfortunately no electric conduits were available in the new exhibition complex,"¹¹ so he could not realize that particular aspect. We can conclude that El Lissitzky's *Abstract Cabinet* was the first permanent gallery of abstract art installed in a museum, completely disengaged from the architectural container of the museum itself and conceptualized as a dynamic, viewer-interactive environment with movable parts and innovative color effects. Moreover, the *Abstract Cabinet* was a courageous construction of imaginary space, a real illusion, a fissure in our three-dimensional world, a mirage of multidimensionality and of the *ad infinitum*, which for the first time ever could be entered in physical reality.

The Expressionist Space Bruno Taut and Museum Architecture as a Multisensory Installation

Changing the focus from visual objects to multisensory experiences was an idea introduced into the architectural context by Bruno Taut, who transposed the principles from Expressionist painting to architecture.

Inspired by Paul Scheerbart's writings and through his close collaboration with Adolf Behne, Taut managed to extract from glass, as a material, an expressive force that they believed had the power to transform culture.¹² Taut's *Glass Pavilion*, built for the Werkbund exhibition in Cologne in 1914, was an answer to the glass industry's demand for an art space. Taut conceptualized it as the first museum of Expressionism, designed to exhibit expressionist art in an expressionist manner.¹³ The architecture of the *Glass Pavilion* was based on two coexisting themes: the controlled gradation of light forming various effects in terms of its intensity and color patterns, as well as the parallel filtering of perceptual information gained by one sense at a time. The visitor's path began in



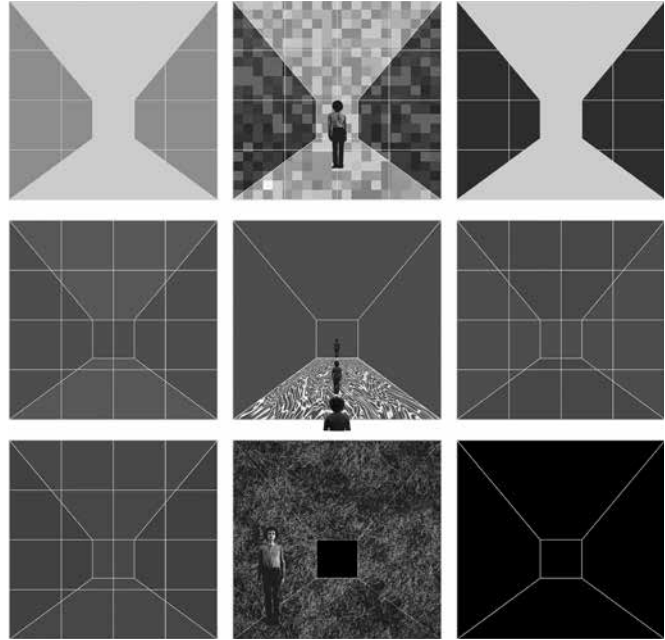
BRUNO TAUT'S GLASHAUS (GLASS PAVILION) INTERIOR, COLOGNE, GERMANY, 1914

- 1 – ONE OF THE OUTER STAIRWAYS OF THE GLASS HOUSE
 2 – THE FOUNTAIN ROOM OF THE GLASS HOUSE
 3 – VIEW OF THE INTERIOR OF THE UPPER LEVEL
 4 – VIEW OF THE INTERIOR OF THE LOWER LEVEL

INTERIÉR SKLENENÉHO DOMU (GLASHAUS) BRUNA TAUTA, KOLÍN
 1 – JEDNO Z VONKAJŠÍCH
 2 – NMIESTNOSŤ S FONTÁNOU V SKLENENOM DOME
 3 – POHLAD DO INTERIÉRU HORNÉHO PODLAŽIA
 4 – POHLAD DO INTERIÉRU DOLNÉHO PODLAŽIA

Source Zdroj (1 – 2):
 Bletter, R. H., 1981,
 pp. 33 – 34.

Source Zdroj (3 – 4):
 Gutschow, K., 2006, p. 67



THE EXPRESSIONIST SPACE: ARCHITECTURE AS A MULTISENSORY INSTALLATION

EXPRESIONISTICKÝ PRIESTOR:
 ARCHITEKTÚRA AKO
 MULTISENZORICKÁ INŠTALÁCIA

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a blinding yellow natural light, which was then pixelated into blue and green patterns by means of a multi-faceted polygonal rhombic glass mosaic envelope. The path then progressed through the violet hues of a cascading waterfall and its inserted underwater lighting, down to a dark reddish purple with a kaleidoscope effect, and finally into complete darkness. At the start of the visitor's path, the visual effects were dominant (multiple blinking reflections, colors), then the kinesthetic and haptic sensations slowly merged and took over via the set of glass stairs, accompanied by the sound of the waterfall, and ending in an almost tactile velvet corridor. (These are all aspects that are hard to perceive in the existing black and white photographs of the *Glass Pavilion* that we possess today, but they can be imagined nevertheless.) The flickering effects of this new communal and public structure that evoked the new cathedral of modernity (or just a reworked version of the old one) underlined the transition of the concept of architectural space from an iconic object to an experiential installation.

Mies Van der Rohe's Collage Museums

Mies' collages originated in the 1930s, in his *Court House* studies, in which – as Detlef Mertins explains – Mies gradually developed the distinctive idea of combining painting, sculpture, architecture and landscape, aimed at the reunification of art and life as a new environmental paradigm.¹⁴

The first realization of this idea in the museum context is Mies' *German Pavilion* at the International Exhibition held in Barcelona in 1929, for which Michael Brawne suggests that it is "in effect a museum building"¹⁵ Although it was nominally a display of Germany as a modern, progressive, industrial nation, this pavilion was in fact built upon an older idea of Bruno Taut's, which approached architectural work as an installation for multisensory experiences expressed through the integral properties of architectural materials in a kind of new poetics of surfaces. This intriguing poetics of surfaces would, interestingly, be reappraised and theorized many years later by Alison and Peter Smithson in what they dubbed *treillage'd space*, i.e., space built by layers, using the operative principle of "layering over" and therefore creating assemblages of juxtaposed contexts – of



GEORG KOLBE'S SCULPTURE DER MORGEN AS A "SLOWING-DOWN POINT"

SOCHA GEORGA KOLBEHO DER MORGEN AKO „BOD SPOMALENIA“

Photo Foto: Meri Batakoja



SPATIAL EXPERIMENTS WITH THE BOUNDARIES OF SPACE

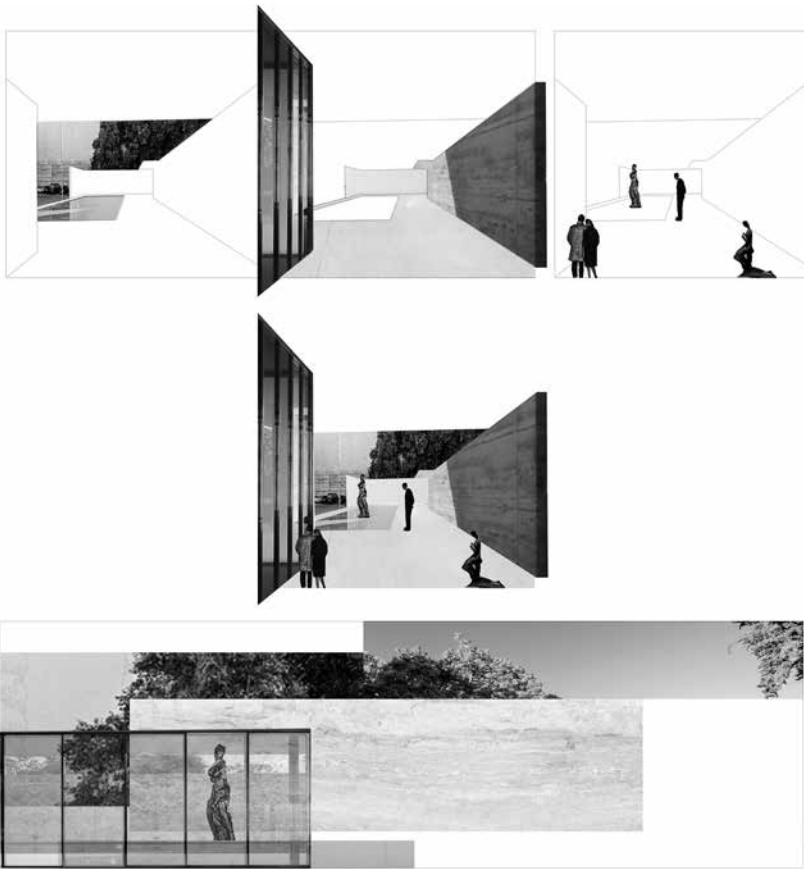
PRIESTOROVÉ EXPERIMENTY S HRANICAMI PRIESTORU

Photo Foto: Meri Batakoja

places and people, of different materialities and multiple natural phenomena that we recognize as a new dialogical environment.¹⁶

In Mies' *German Pavilion*, the "free plan," as an unstoppable continuous flow between various collaged ambiances, is fully realized. Mies used expensive materials like chromium, polished onyx, Tinian green marble, travertine, and gray, green, and etched glass. He also included two reflecting pools, one of which was lined with black glass. The dynamics of movement, inherent to this Pavilion, is channeled through curious site-specific elements designed for contemplation, which work as "slowing-down points" that prolong the visitor's presence in the space. One of them is the most famous liminal scene with Georg Kolbe's sculpture *Der Morgen* rising from the water like a haunting phantasm.

But there are also mirages that are formed between the tactile presence of real material surfaces and the visual presence of their reflections. In this way, Mies experimented with the existing boundaries of space, dissolving and dematerializing them, and turning them into pure reflections. The dense visual effect of overlapping architectural and natural textures that renders them a unified aesthetic element, and the participation of each human body in the finalization of the visual impression, can be compared only to an encounter with a gigantic ever-changing easel painting of the much later abstract expressionism.



**THE EXPRESSIONIST SPACE:
PERSPECTIVAL AND TWO-
DIMENSIONAL COLLAGES**

EXPRESIONISTICKÝ PRIESTOR:
PERSPEKTÍVNE A DVOJROZMERNÉ
KOLÁŽE

Authors Autori: Spatial concept
illustrated by Meri Batakoja,
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Along these very same lines, in his *Museum for a Small City* from 1943, Mies later establishes a grid of columns and interplay of free-standing walls in which seven programmed volumes are incorporated.¹⁷ The resulting space, enclosed by a transparent glass wall, is what Mies imagined as a brand-new typology of exhibition space conceptualized as a spatially montaged collage of art. Art, as this concept announced, was no longer detached and autonomous within the safe boundaries of perspectival space, but is instead exposed to intense dialogical relationships with the environment and open to the power of perceptual juxtapositions in order to produce new visual meaning. One of the driving ideas of the design, as Neil Levine points out, is to create a space for Picasso's *Guernica* where "it can be shown to greatest advantage," becoming 'an element in space against a changing background'.¹⁸

The Spatial Mode of Abstract Expressionist Painting

With the dissolving of the "easel painting into the realm of architecture,"¹⁹ abstract expressionist painting started to become an element of space, and thereby an intriguing architectural issue. Large canvases not only possessed a new physical size and specific material density of their own; they also imposed a new relational quality by erasing the frame and stepping outside their own finite painting surface into the real space of the living viewer.

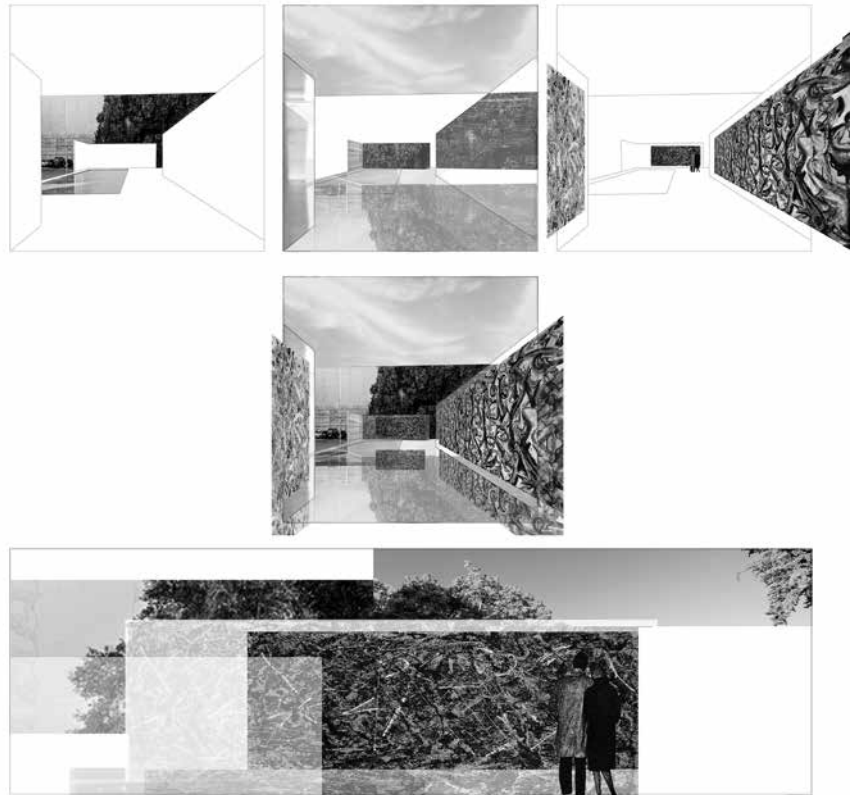
This new phenomenon of a painting that emanates and creates real space in our real three-dimensional world was acknowledged as early as Jackson Pollock's first monumental painting, *Mural* (approximately 2.5 meters high and 6 meters long), which was commissioned by Peggy Guggenheim in 1943 for the foyer of her New York townhouse. By choosing the narrow hallway for its display, Pollock affected the physical encounter of the viewer: he/she was, on the one hand, claustrophobically overwhelmed by the painting, and on the other hand, was forced to feel the boundaries of the whole space while trying to see the painting in its entirety.²⁰

The architect Peter Blake, fascinated by Pollock's studio, designed a spatial model titled *Ideal Museum* for Pollock in 1949. This was an environment in which Pollock's paintings were to be placed as autonomous surfaces between other reflective architectural planes. This made the unframed paintings virtually limitless, extending into infinity. Their overwhelming material density

**THE EXPRESSIONIST SPACE: THE
SPATIAL MODE OF ABSTRACT
EXPRESSIONIST PAINTING**

EXPRESIONISTICKÝ PRIESTOR:
PRIESTOROVÝ REŽIM ABSTRAKTNEJ
EXPRESIONISTICKEJ MALBY

Authors Autori: Spatial concept
illustrated by Meri Batakoja,
Karin Šerman



was collaged upon the landscape of Long Island, which was drawn deep into the interior, as the exterior walls and the remaining interior walls were made entirely of glass and mirrors. It could, of course, not pass unobserved that the Ideal Pollock Museum was based on the museum works of Mies van der Rohe. The model consisted of eight miniaturized Pollock paintings that stood either as freestanding walls or were supported from the ceiling, making the architecture and exhibition inseparable from one another.²¹ Unfortunately, the model for Pollock's *Ideal Museum* is all that remains of this original spatial idea.

A painting that physically awoke a sense of place and a sense of *being there* as embodied experience, as opposed to the disembodied eye of the mere visual encounter, would foreshadow the gradual transition from Abstract Expressionism to Minimalism a decade later.

The Correlational Space

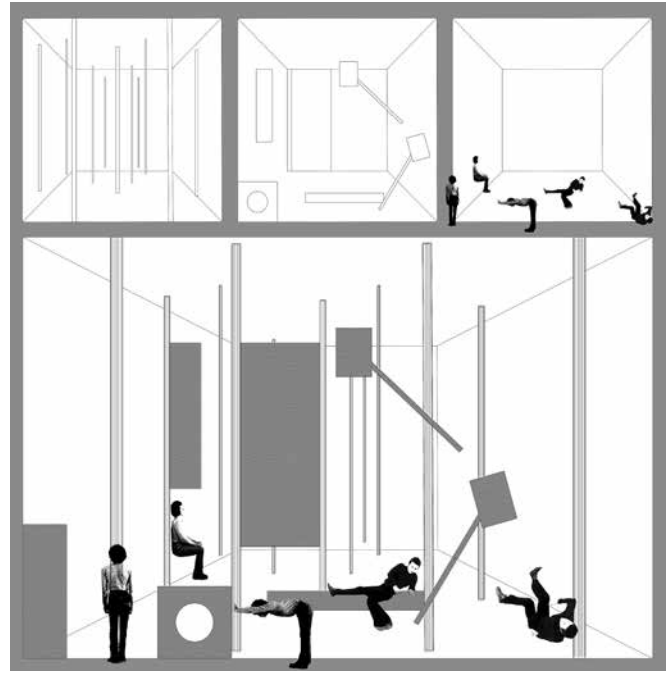
Several professional experiences influenced Frederick Kiesler's famous Correlation theory.²² In the short-lived Brooklyn International Theatre Arts Institute, where he taught artistic stage practices from 1926 to 1927, he collaborated with Norina Matchabelli and Dr. Bess Mensendieck, both of whom greatly influenced and shaped his preoccupations. Norina Matchabelli worked on an acting method called "co-relation" (co-relation between the brain, soul and body) supported by a range of theories, from psychoanalysis, autosuggestion and perception, all the way through to magnetism, cyclical theories, space-time, etc. Dr. Bess Mensendieck worked toward developing therapeutic movement techniques that involved a series of bodily exercises to revitalize the human body from harmful habits and to preserve its ability to perform optimized and advanced motions.²³ Kiesler accepted these theories and tried to apply them primarily in the context of the theatrical arts, but he investigated them further in his Design-Correlation Laboratory at Columbia University, which he directed between 1936 and 1942. Within his Laboratory, he examined various aspects intrinsic to exhibition and museum design, i.e., the problem of the most suitable architectural environment for exhibiting the arts. One of the aspects addressed was "psycho-physiological succession" from "optical tactilism to manual tactilism," i.e., the detected need to establish contact with an art object in the general progression from vision to touch.²⁴ Along that line, he initiated experiments called



FREDERICK KIESLER'S "THE ART OF THIS CENTURY" MUSEUM-GALLERY'S FOUR CONSTITUENT PARTS: THE ABSTRACT, KINETIC, SURREALIST AND DAYLIGHT GALLERIES, NEW YORK, 1942
 1 – THE ABSTRACT GALLERY
 2 – THE SURREALIST GALLERY
 3 – THE KINETIC GALLERY
 4 – THE DAYLIGHT GALLERY

ŠTYRI ZLOŽKY MÚZEA-GALÉRIE „UMENIA TOHTO STOROČIA“
 FREDERICKA KIESLERA:
 ABSTRAKTNÁ, KINETICKÁ
 A SURREALISTICKÁ GALÉRIA
 A GALÉRIA DENNÉHO SVETLA, NEW YORK, 1942
 1 – ABSTRAKTNÁ GALÉRIA
 2 – SURREALISTICKÁ GALÉRIA
 3 – KINETICKÁ GALÉRIA
 4 – GALÉRIA DENNÉHO SVETLA

Source Zdroj: (1 – 2) HATTON, Brian, 2006. *Peggy Guggenheim & Frederick Kiesler. The Story of Art of This Century* by Susan Davidson; Philip Rylands. AA Files, no. 53, p. 83; (3) SAFRAN, Yehuda, 1990. *Frederick Kiesler 1890 – 1965. AA EXHIBITION GALLERY, MEMBERS' ROOM & BAR 8 NOVEMBER – 9 DECEMBER 1989*. AA Files, no. 20, p. 84; (4) Unknown Internet Source



THE CORRELATIONAL SPACE
 KORELAČNÝ PRIESTOR

Authors Autori: Spatial concept
 illustrated by Meri Batakoja,
 Karin Šerman

“contact-cycle studies” in which students imagined and recorded the experience of intellectual attainment of an art object from historical case studies. They also imagined moving around the space in various scenarios, registering different experiences and charting time-motion diagrams of virtual and habitual perceptions of space through human motions.²⁵ He taught students about the habits of everyday life and how our bodies and minds easily become slaves to habits, which he perceived as the major inhibitors of innovation. In contrast, when a spatial situation is such that the users are put into unhabitual relations, they are necessarily disrupted and start developing changes in their habits; in other words, the immediate environment prompts innovation and adaptation in uses and human relations. Kiesler included in his spatial experiments various electrical instruments as a more extreme method, aiming at designing his own bioelectric systems for studying sensory reactions: central and motor nerve impulses.

Frederick Kiesler's installation design, called *Leger und Trager* or *L and T*, was introduced at the International Exhibition of New Theatre Techniques held at the Vienna Konzerthaus in 1924. *Leger* means “lying element”: anything that lies in one place, and remains in that place. *Trager* means bearer, holder, supporter.²⁶ *Leger und Trager* thus presented a new language of form composed of free-standing demountable display units of horizontal and vertical beams that supported vertical and horizontal rectangular panels. The exhibition materials themselves (drawings, posters, marionettes, photographs, designs and models) were placed on these “L” and “T” elements unframed. *Trager elements* were all about a new interactivity, about engaging the viewer in a new participatory experience of observation and intensified perception through the multiple heights and angles that the objects were displayed at, or else cantilevers that allowed adjustment of display objects to the eye level of the viewer and according to the individual's viewing pleasure, as well as benches to rest on or to focus, etc.

The lighting system was also an innovation here. Kiesler incorporated electric light bulbs that could be arranged to highlight groups of artworks or to spotlight individual works. The installation's color was also to vary to suit each exhibition specifically.

In 1942, Peggy Guggenheim rented two lofts in Manhattan with the idea of adapting them for the purposes of her new museum-gallery, which she named *The Art of This Century*.²⁷ Frederick

Kiesler was Peggy Guggenheim's choice as architect, whom she entrusted with the task of the spatial organizing and displaying of her collection. He conceptualized four different spatial enclaves inside one continuous free-plan space with four totally different atmospheres dedicated to four distinctive artistic themes: the *Abstract Gallery*, the *Kinetic Gallery*, the *Surrealist Gallery* and the *Daylight Gallery*.

The *Abstract Gallery* consisted of "weightless" abstract paintings that levitated in the air suspended on triangular wire holders, set against a dark background in an anti-gravitational atmosphere. The visitor who stood between the levitating paintings had a chance to observe them three-dimensionally as sculptures in space. Some of them were positioned far too high, some of them far too low, for the body to change positions to actively absorb them. The *Kinetic Gallery*, in turn, consisted of "vision machines." One machine was dedicated to the small formats of Paul Klee's artworks, the other to the "portable museum" of Marcel Duchamp. Both were "put into motion" by mechanical rotation of a spiral wheel and a long handle and absorbed by the individual concentrated gaze and appreciation of the artworks. The *Surreal Gallery*, in addition to an overtly surreal gesture – hands penetrating the walls and holding the surrealist artworks – was inventive in that it used a selection of special effects. Every two minutes the lights went out and, in the complete darkness of the gallery space, a sound effect of an "invisible" approaching train was emitted, thus greatly distracting the visitor. In the *Daylight Gallery*, conceptualized as a sort of art library or a specific study area, the artworks could be touched and rearranged by the visitor himself/herself in the same manner in which he/she would touch and survey books in a library.²⁸

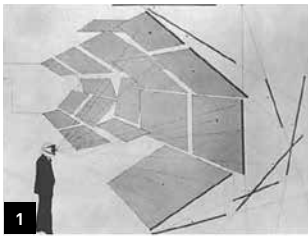
The approach that Kiesler used to achieve these various manifestations of *correlational space* for art is slightly experimental in his earlier work, and indeed highly experimental and intuitive in his later work, starting from shattering our bodily limitations in relation to customary spatial habits, over certain basic experiments with the human body and exploration of the mechanical functioning of its parts, all the way down to the phenomenology of perception and dream phenomena resulting from Kiesler's personal affinity for surrealism.

The Multimedia Space

In roughly the same period, and likewise in an American cultural context, Charles and Ray Eames were working on the concept of unified spatial and technological products for the presentation of multimedia information.²⁹ They demonstrated their ideas for multimedia architecture at a show in Moscow in 1959, where America chose to present itself in a 7500-square-meter exhibition space consisting of a glass pavilion by Welton Beckett and a golden dome by Buckminster Fuller, with a diameter of 76.5 meters. A multimedia installation designed by Charles and Ray Eames was placed within the golden dome, which consisted of seven large screens, each of which was 6 by 9 meters in size, by means of which 2200 static and moving pictures were projected in front of thousands of people within the space of just three minutes.

The Eameses' project was the result of ten years' worth of experimental research on multimedia and the ways in which the public reacts when exposed to multiple sensations: static and moving pictures, smells, noises, sounds whose frequencies are sometimes so high that vibrations are felt. As early as 1952, the Department of Fine Arts at the University of Georgia in Athens began undertaking a study of art as a kind of communication, as presented in the *Communication Primer* by George Nelson, Ray and Charles Eames and Alexander Girard, informally known to its authors as *Art X* or *A Rough Sketch of a Sample Lesson for a Hypothetical Course*. The final report of the study, which included decisive conclusions, was submitted in the form of a performance that included a live narrator, multiple still and moving images, smells and sounds (music and narration). This experiment showed that momentary concentration and consciousness are strengthened when distraction techniques are being used (as contradictory as this might sound). By creating an intense sensory environment with various distractions, a sort of sensory overload is produced, and the public is forced into intensified perception. This experiment also showed the potential of intense sensory environments in the process of education: the idea of educating people not through passively receiving an already determined single message, but actively trying to establish connections between seemingly unrelated phenomena.

The Eameses based their later *IBM Pavilion*, built for the World's Fair in New York in 1964, on precisely this research – on ideas about the ways the brain best understands information: in visual fragments, through sensory overload and by canalized intensification of perception through



1



2



3



4



THE GENEALOGY OF THE
"EXTENDED FIELD OF VISION"
1 – BAYER, HERBERT. EXTENDED
VISION, FROM THE CATALOGUE
OF THE WERKBUND EXHIBITION,
PARIS, 1930

2 – BAYER, HERBERT. DISPLAY OF
ARCHITECTURE AND STANDARD
FURNITURE, WERKBUND
EXHIBITION, PARIS, 1930

3 – EAMES, CHARLES AND RAY.
GLIMPSES OF THE USA, 1959,
MULTISCREEN PROJECTION
SHOWING IN THE INTERIOR OF
THE MOSCOW WORLD'S FAIR
AUDITORIUM

4 – EAMES, CHARLES AND RAY.
THINK, 1965, MULTISCREEN
PROJECTION

GENEALÓGIA „ROZŠÍRENÉHO
ZORNÉHO POĽA“

1 – BAYER, HERBERT. ROZŠÍRENÉ
VIDENIE, Z KATALÓGU VÝSTAVY
WERKBUNDU, PARÍŽ, 1930

2 – BAYER, HERBERT. EXPOZÍCIA
ARCHITEKTÚRY A ŠTANDARDNÉHO
NÁBYTKU, VÝSTAVA WERKBUNDU,
PARÍŽ, 1930

3 – EAMES, CHARLES A RAY. LETMÉ
POHLADY NA USA, 1959, PROJEKČIA
NA VIACERÝCH OBRAZOVKÁCH
V INTERIÉRI AUDITÓRIA SVETOVEJ
VÝSTAVY V MOSKVE

4 – EAMES, CHARLES A RAY. THINK,
1965, PROJEKČIA NA VIACERÝCH
OBRAZOVKÁCH

Source Zdroj: BAYER, Herbert, 1961.
Aspects of Design of Exhibitions and
Museums. Curator, p. 277;
COLOMINA, Beatriz, 2001. Enclosed
by Images: The Eames's Multimedia
Architecture. Grey Room, (2), pp. 6, 21

EAMES, CHARLES AND RAY.
GLIMPSES OF THE USA AND THE
NOTATION OF TIME OF SEQUENCES
FOR GLIMPSES OF THE USA, 1959

EAMES, CHARLES A RAY. LETMÉ
POHLADY NA USA A ZÁZNAM
ČASOV SEKVENCÍ PRE LETMÉ
POHLADY NA USA, 1959

Source Zdroj: COLOMINA, Beatriz,
2001. Enclosed by Images: The Eames's
Multimedia Architecture. Grey Room,
no. 2, p. 18.

distractions. The visitors in the *Golden Dome* and in the *IBM Pavilion* were exposed to a new mode of perception and a new way of learning through immediacy and experience, precisely the same ideas that the new art forms after the 1960s would invent and promote: the happening, the performance and the situation.³⁰

The Situationist Space

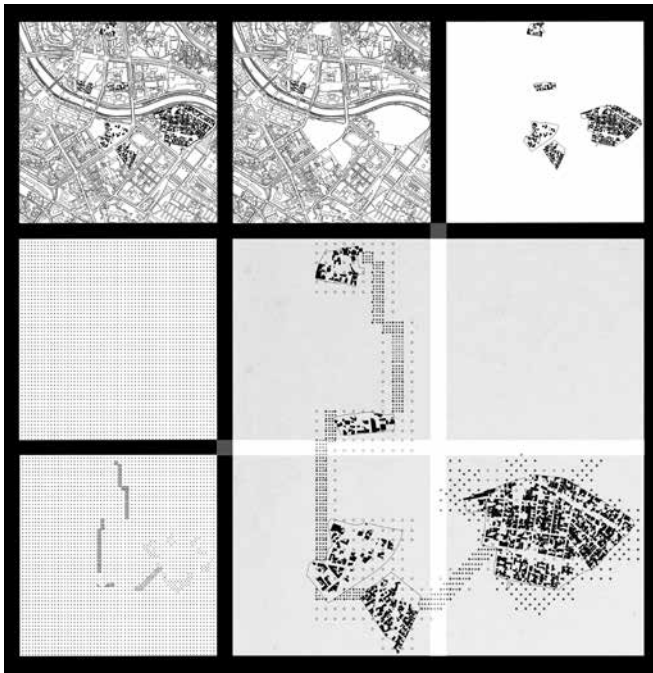
The Situationist International invented in turn their own new paradigm. They positioned the power of change within the new collective avant-garde that was roughly similar to the Dadaist style of denunciation and revolt and Surrealist-type psychological games, in both programmatic and aesthetic ways. Yet, unlike them, the Situationists' approach was informed by real organizational methods from revolutionary politics and the "militant aspects" they implied, aiming not just to follow this coherent revolutionary program but to struggle against the forces that would impede its constant change and development.³¹

Their artistic experimental research was therefore based upon four concepts: *situation construction*, *psychogeography*, the *dérive* and the *détournement*.

The *situation* was poetically defined as a total creation, a need to play with architecture, time and space. "On the basis of this mobile civilization, architecture will, at least initially, be a means of experimenting with a thousand ways of modifying life, with a view to an ultimate mythic synthesis."³² In a more pragmatic sense, a situation meant using all of the arts and techniques integrally at the level of urbanism, in order to encourage emotionally charged and moving behaviors.

Toward this end, *psychogeography* was defined as the study of the specific effects of geographical environments, both consciously and unconsciously, a study of the emotions and behaviors of individuals. Psychogeography would use maps on which particular locations within one city, which were designated for the arousal of certain affective responses, would be marked.

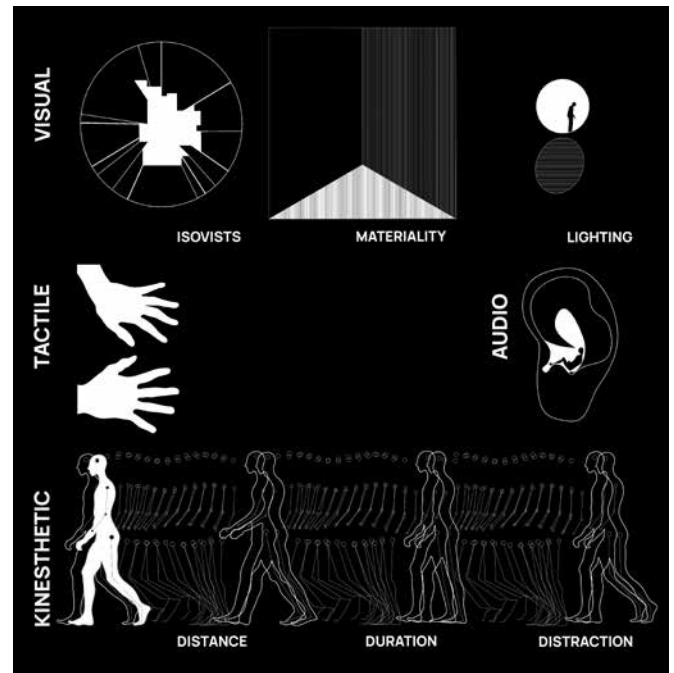
A direct technique for studying and mapping psychogeography was the *dérive* (drift, drifting), which consisted of an unplanned tour by an everyday user of the city through its urban landscape, directed solely by the feelings evoked by an interaction with the surroundings. The *dérive* thus



**THE SITUATIONIST SPACE:
APPLYING THE NAKED CITY MAP
CONCEPT TO SKOPJE (MUSEUM OF
EVERYDAY LIFE REMNANTS)**

SITUACIONISTICKÝ PRIESTOR:
POUŽITIE KONCEPTU NAHEJ MAPY
MESTA NA MESTO SKOPJE (MÚZEUM
POZOSTATKOV KAŽDODENNÉHO
ŽIVOTA)

Authors Autori: Spatial concept
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**LEGEND AND PATTERNS OF
PERCEPTUAL INFORMATION**
LEGENDA A VZORCE VNEMOVÝCH
INFORMÁCIÍ

Authors Autori: Illustrated by
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included intentional avoidance of the conventional order of the city, and instead promoted deliberate recognition of varied and unexpected ambiances and invitations to enter and explore tabooed zones, the uncanny and even forbidden locations.

Particular districts of the city, rediscovered through the technique of the *dérive*, instead of being classified by their common functions as working zones, recreational zones, etc., “would correspond to the whole spectrum of diverse feelings that one encounters by chance in everyday life”: bizarre quarter, happy quarter, noble and tragic quarter, useful quarter, death quarter, etc.³³

One of the first significant products owed to the SI (Situationist International) – although it was published by MIBI (Mouvement international pour un Bauhaus imaginiste) in 1957 – is a map of Paris called *The Naked City*. *The Naked City* was composed of nineteen cut-out sections of a map of Paris printed in black ink, interlinked with directional arrows in red. Each of these cut-out sections, or fragments, represented a different “unity of atmosphere.” The red arrows represented “the spontaneous turns of direction taken by a subject moving through these surroundings in disregard of the useful connections that ordinarily govern his conduct.”³⁴ It is a subjective experiential map, a retouched version of what used to be an objective representation of a particular city.

To read the map of *The Naked City* is not to read Paris at all. The totality of Paris disappears at the expense of the unities of atmospheres discovered by a procedure called *synecdoche*. The unities of atmospheres are positioned in such a way that it becomes impossible for *The Naked City* to function as a conventional map, because it lacks accurate orientation in relation to the cardinal directions and relative distances between the unities of atmospheres. The linkages between the unities of atmospheres are represented only by abstract red arrows existing in a totally white, blank, in-between space, an erased space. The Situationists called this procedure *asyndeton*, a process of opening gaps in the spatial continuum, keeping as valid only selected fragments of it.³⁵ The *situationist space* is therefore about the directly lived space as an attack on the preconceived and perceived space as merely abstract categories.

Another technique used to construct such a pregnant situation is the *détournement*, meaning re-functioning, re-contextualization, or else an intentional plagiarism, inserting parts from one text into another in order to change their meaning and create a totally new and unexpected

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significance. In the context of architecture we equalize détournement with the power of montage of multiple pre-existing aesthetic, plastic and emotional elements into new situations or events. It can also mean turning aside or diverting from the standard pedestrian trajectory or else from the expected purpose of a pre-existing object.

In the museum context, the influence of the SI is underestimated. There is, however, a loud voice behind various art tendencies after the 1960s, which created new kinds of museum spaces for themselves: the alternative spaces movement and the idea of the anti/extra museum, the minimal art and the environmental museum, the land art and the dispersed site museum, etc.

Conclusions

In this paper, a unique dictionary of experimental spaces and particular techniques for their conceptual production has been developed as a kind of genealogy of modern space. The paper therefore constructs a newly compiled brief theory of various modes of space in the epoch of modernity.

It also underlines the important place that modernity should reserve for art museums; they are, in fact, modernity's most natural partners in the quest for the ultimate freedom of imagination and the social value of experimental thought.

All of the spaces presented above have been treated as experiential platforms for viewers, and it is through this dynamic interrelation between the viewer and the environment that the architectural meaning is presumed to be created. All of the spaces presented are based on the idea of the interactivity of the participating body, where the viewer is treated and respected as an active participant and hence becomes the design's key target and recipient. The new modern man to become is encouraged to build his/her own relationship with the new art space. This interactivity is developed by designing *the patterns of perceptual information* that refer to the ways in which visual, audio, tactile and kinesthetic information is consciously planned to form an intensive sensory environment.

For the patterns of perceptual information to be consciously planned in the manner of a total environment for empowering perception in real time, particular attention has been paid to the habitual actions and perceptions of human bodies, and the possibilities for their extension surveyed. These are the common aspects that were at the center of all the particular studies carried out by the various protagonists discussed in this paper. Their experimental approaches were based predominantly on the precise acknowledgement of physiological limits versus a psychological imaginary infinity of perception, achieved by way of advanced technologies, be it the production of new materials as prerequisites for new scales and effects as in the case of the imaginary and expressionist space; or advanced automations as in the case of correlational and multimedia space; or else the urban studies poetics of the everyday, as in the case of situationist space.

Although experimental practices developed a wide range of architectural representation techniques in order to depict new concepts of space, such as mirrored axonometry with a human figure by El Lissitzky, Mies' collages, Kiesler's time-motion studies, the Eameses' montage charts, the Situationists' cartographies, etc., they also leave open the possibility of thinking about the many different ways the "autonomous emanations" of architecture could, can and will be represented, and of the many different ways visual representations by themselves could be a potent *modus operandi*, i.e., productive methods of operation for the exploration and development of ever new spatial concepts based upon holistic human capacities in physiological, psychological and cultural terms.

Therefore, the questions of if and how avant-garde spatial experiments aimed at modernization as such, in terms of the deliberate reorganization and advancement of the human sensorium, have undoubtedly and unequivocally been answered with this research. Whether the success – of this unique dictionary of spaces, this witness to the substantial understanding of modern architecture and culture of perception of the new – has ever had a worthy rival in the form of a corresponding modern human psyche and society, is a worrisome question that we still need to address.

- 1** MARINETTI, Filippo Tommaso Emilio, 1908. *Futurist Manifesto. We will destroy the museums, libraries, academies of every kind, will fight moralism, feminism, every opportunistic or utilitarian cowardice...* There is no doubt that traditional museums represented one of the icons of the past, remnants of the old social order that paralyzed the new processes of education and culture. On the other hand, as Charles Jencks writes, this “irresistible display of violence and strength” makes the manifesto memorable and psychologically impressive, and represents one of the most evident characteristics of this literary genre. But as statements so memorable and psychologically impressive, excerpts like this one from the *Futurist Manifesto* suspended the idea that an art museum could be read as the ground floor for the new, experimental, creative, democratic and participatory new media.
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- 2** WILKE, Tobias, 2010. Tacti(cal)ity Reclaimed: Benjamin’s Medium, the Avant-Garde, and the Politics of the Senses. In: *Grey Room*, (39), Walter Benjamin’s Media Tactics: Optics, Perception, and the Work of Art. pp. 39 – 56.
- 3** HENNING, Michelle, 2007. Legibility and Affect: Museums as New Media. In: Macdonald, S. and Basu, P. (eds.). *Exhibition Experiments*, Blackwell Publishing, pp. 25 – 46
- 4** Henning, M., 2007, p. 43.
- 5** STANISZEWSKI, Mary Anne, 2001. Framing Installation Design: The International Avant-Gardes. In: Staniszewski, M.A. *The Power of Display: A History of Exhibition Installations at the Museum of Modern Art*. Cambridge, Massachusetts: MIT Press, pp. 1 – 59.
- 6** LISSITZKY, El, 1925. A. and Pangeometry. In: Harrison, Ch. and Wood, P. (eds.), 1992. *Art in Theory – An Anthology of Changing Ideas*. Blackwell Publishing, pp. 303 – 307.
- 7** Referring to Kazimir Malevich’s *Suprematist Composition: White on White* from 1918.
- 8** Lissitzky, E., 1925, p. 305.
- 9** In 1920, Lissitzky announced a new type of artwork that he called a “Proun” – an acronym of the Russian phrase meaning “project for the affirmation of the new,” “proekt unovisa” (a project by UNOVIS – a short lived and influential artistic group within the Vitebsk Art School in 1919 under the leadership of Kazimir Malevich) or “proekt utverzhdaniya novogo” (meaning design for the confirmation of the new). In conceptual terms, Lissitzky referred to Proun as “the station where one changes from painting to architecture.”
- Official website of the Museum of Modern Art in New York. [online] 2021 [Accessed 1. Apr. 2021], Available at www.moma.org/collection/object.php?object_id=79040
- 10** DIFFORD, Richard J., 1997. Proun: An Exercise in the Illusion of Four-Dimensional Space. *The Journal of Architecture*. **2**, pp. 113 – 144.
- 11** Staniszewski, M. A., 2001.
- 12** GUTSCHOW, Kai, 2006. From Object to Intallation in Bruno Taut’s Exhibit Pavilions. *JAE – Journal of Architectural Education*. **59**(4), pp. 63 – 70.
- 13** Gutschow, K., 2006; STUART, John, 1999. Unweaving Narrative Fabric: Bruno Taut, Walter Benjamin, and Paul Scheerbart’s “The gray cloth”. *Journal of Architectural Education*, **53**(2), pp. 61 – 73.
- BLETTER, Rosemarie Haag, 1975. Paul Scheerbart’s Architectural Fantasies. *Journal of the Society of Architectural Historians*. **34**(2), pp. 83 – 97; BLETTER, Rosemarie Haag, 1981. The Interpretation of the Glass Dream – Expressionist Architecture and the History of the Crystal Metaphor. *Journal of the Society of Architectural Historians*. **40**(1), pp. 20 – 43.
- 14** Tugendhat House (1930), Resor House (1939), Museum for a Small City (1942 – 1943), New National Gallery (1968); MERTINS, Detlef, 2005. *Mies’s Event Space*. Grey Room, (20), pp. 62 – 63.
- 15** BRAWNE, Michael, 1965. *The New Museum: Architecture and Display*. Stuttgart: Verlag Gerd Hatje, p. 16.
- 16** HAILEY, Charley, 2010. Treillage’d Space: Tuning Person and Place in the Porches of Alison and Peter Smithson. In: *Environment, Space, Place* (Zeta Books).
- 17** Brawne, M., 1965, pp. 26 – 27.
- 18** Levine, N., 1998, p. 82.
- 19** COSTELLO, Eileen Elizabeth, 2010. *Beyond the Easel: The Dissolution of Abstract Expressionist Painting into the Realm of Architecture*. Dissertation of The University of Texas at Austin, p. 1.
- 20** Costello, E. E., 2010, p. 5.
- 21** Costello, E. E., 2010, p. 6.
- 22** Steven Phillips claims that Kiesler derived his use of the term “correlation” from theories of plant and animal morphology described by Patrick Geddes. Even Buckminster Fuller gave his introduction to the second issue of *Shelter* magazine the title “Correlation” in 1932, describing the ideal of correlation as interconnection, continuity and interrelationship between the working practices and discourses of the Structural Studies Associates (SSA), which included Kiesler as a member of their group. It was therefore a popular term among the individuals and groups that associated themselves with the technological materialist ideology in positive terms. For more see: PHILLIPS, Stephen, 2010. *Toward a Research Practice: Frederick Kiesler’s Design-Correlation Laboratory*. Grey Room (The MIT Press), (38), pp. 98 – 99.
- 23** Phillips, S., 2010, p. 95.
- 24** Phillips, S., 2010, p. 100.
- 25** The laboratory produced time-motion studies similar to those invented by Eadweard Muybridge, Étienne-Jules Marey, Frederick Taylor and Henry Ford.
- 26** It is interesting to note (even as a pure coincidence) that the Trager approach was founded by Doctor Milton Trager. It was a method of teaching his psychological patients to move in the most effortless and intuitive way possible; it sought to turn psychological blocks into free-flowing movement and to remove them altogether, to help his clients live pain-free lives and to experience release from long-standing patterns of self-imposed physical and mental limitations.
- 27** PHILLIPS, Stephen, 2005. Introjection and Projection: Frederick Kiesler and His Dream Machine. In: Thomas, M. (ed.). *Surrealism and Architecture*. Routledge, pp. 140 – 155.
- 28** Phillips, S., 2005
- 29** For more on multimedia architecture by Charles and Ray Eames see: SCHRADER, Paul, 1970. Poetry of Ideas: The Films of Charles Eames. *Film Quarterly*. **23**(3), pp. 2 – 19; STEVENSON, Rachel, 2005. Living Images: Charles and Ray Eames “At Home”. *Perspecta*. **37**, pp. 32 – 41; COLOMINA, Beatriz, 2001. *Enclosed by Images: The Eames’s Multimedia Architecture*. Grey Room, (2), pp. 5 – 29.
- 30** On the theorization of the cinematic space in architectural context, the acknowledgement of the viewing subject and the paradigmatic change in the viewing conditions, read in: ANDJELKOVIC, Katarina, 2015. *Experimenting with Temporality and Cinematic Techniques. Architecture e-urbanism*. **49**(3 – 4), pp. 276 – 285.
- 31** DEBORD, Guy, 1957. Report on the Construction of Situations. In: Knabb, Ken, 1981. *Situationist International Anthology*. Bureau of Public Secrets.
- 32** CHTCHEGLOV, Ivan (GILLES, Ivain), 1953. Formulary for a New Urbanism. In: Knabb, Ken, 1981. *Situationist International Anthology*. Bureau of Public Secrets.
- 33** Chtcheglov, I., 1953.
- 34** Asger Jorn, according to McDONOUGH, Thomas F., 1994. Situationist Space. In: *October* **67**, pp. 58 – 77.
- 35** Chtcheglov, I., 1981, p. 65.