## ЗБОРНИК РАДОВА:

ПРВА МЕЂУНАРОДНА КОНФЕРЕНЦИЈА SMARTART – УМЕТНОСТ И НАУКА У ПРИМЕНИ Од инспирације до интеракције

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FIRST INTERNATIONAL CONFERENCE SMARTART – ART AND SCIENCE APPLIED

From Inspiration to Interaction

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## DESIGN PRINCIPLES FOR ACHIEVING INTERIOR SPATIALITY

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**Abstract**: Achieving spatiality is one of the essential topics in designing the ambience in which a certain visual effect can be carried out or a higher level of spatial comfort obtained. The methods relied on to achieve this are various: from shaping the physical boundaries of space by use of open plan, flexibility, enfilade or circular connection, partial, directed or complete opening of space towards its surroundings, up to application of some of the optical illusions that redefine the experience of space boundaries. Depending on the method used, spatial contours can be clearly defined or more or less obvious, or a space can be formed in such a way that it does not reveal all its qualities through static observation, inviting the viewers to pass through it in order to fully perceive it. If there is a lack of physical possibilities, as an addition to previous methods, it is also possible to change the perceptive image of the space through virtual build-up with the help of certain optical illusions The aim of this paper is systematization and critical examination of basic designers' principles which, in the domain of organization, shaping or materialization of the interior, achieve a higher level of spatiality.

Keywords: Architecture, interior, space, spatiality, designers' principles

## INTRODUCTION

Designing an interior includes a wide spectrum of activities undertaken with an aim of turning the existing or newly designed space into space for a certain purpose, to shape it aesthetically, while at the same time trying to achieve its functional comfort. Depending on the ways the space is used, current and desired dimensions, as well as its configuration, achieving spatiality can be one of the primary criteria for successful articulation of the interior. What mostly influences the experience of spatiality are the characteristics of the space, position from which the space is being perceived, the ways of perception (static or dynamic, through movement), the ability of the viewer to perceive, feel and envisage space, but also other parameters. The mentioned aspects of spatiality were the focus of interest of

numerous reserachers, who, in their domains (philosophy, architecture, geography, sociology, psychology, etc.) looked for answers to questions what spatiality is, how to achieve it and what the effects of its perception were. The source dealing in detail with some of the key aspects of spatiality in the interior is the dissertation by A. Spiliotis, *Illusionism in Architecture: Anamorphosis Trompe l'Oeil and Other Illusionary Techniques From the Italian Renaissance to Today*, in which the author analyzes early and contemporary examples of architectural illusionism, as well as methods used for manipulation of the viewer's perception. <sup>2</sup>

The motivation for this research stems from the fact that the designers' principles for achieving spatiality in the interior have not yet been sufficiently explained, nor have they been analyzed in detail and systematized within science. The paper partially continues the previous research named *Design Principles for Achieving Spatiality in Living Space*, which examined and confirmed the thesis claiming that the spatiality in living space can be achieved in three main ways, which at the same time define the character of spatiality: a) by clearly extending at least one of the physical dimensions of space (depth, width and height), b) by presenting the option of movement through the space not perceptible from individual views, thus enabling the supposition of its realistic boundaries and c) through some of the optical illusions of spatiality in materialization of surfaces.<sup>3</sup> In comparison to previous research, in this paper, the design principles will be analyzed in a wider context, in order to include not only the apsects of structure and organization of space, but also others, which enable a higher level of spatiality, such as shaping, materialization, lighting, etc. The aim of the paper is to systematize and critically examine the basic design principles which in the domain of organization, shaping and materialization of the interior contribute to a higher level of spatiality.

## THE SIGNIFICANCE AND THE ROLE OF SPATIALITY IN INTERIOR DESIGN

Achieving spatiality is one of the key attitudes in the process of interior design. Its role and significance are mainly reflected in numerous aspects of interior space perception, from the option of visual extension of interior boundaries and decrease or neutralization of the claustrophobic feeling, which could be of crucial importance in small surface spaces, up to achieving better comfort or representativeness of the

<sup>1</sup> F. Acre, Spatial quality assessment for energy-efficiency renovation of dwellings (PhD Thesis), Trondheim, 2017.; C. Erkelens, "Perspective Space as a Model for Distance and Size Perception", *i-Perception* 8/6 (Newbury Park), 2017, 1–20.; M. Farrell, Historical and Philosophical Foundations of Psychology, Cambridge, 2014.; M. Чанак, "Отворен или затворен стан", Архишекшура и урбанизам 38 (Београд), 2013, 66–77.; P. Merriman et al., "Space and spatiality in theory", Dialogues in Human Geography 2/1, 2012, 3–22.; Y. Wang, "Formal Descriptions of Cognitive Processes of Perceptions on Spatiality, Time, and Motion", International Journal of Cognitive Informatics and Natural Intelligence 3/2, 2009, 84–98.; H. Hertzberger, Space and the Architect: Lessons in Architecture 2, 010 Publishers, Rotterdam, 2000.; C. Van de Ven, Space in Architecture: The Evolution of a New Idea in the Theory and History of the Modern Movements, Van Gorcum, Assen/Maastricht, 1987.; K. Ie Lie, An Analysis of the Formal Qualities of Space in Architecture (Master Thesis), Cambridge, 1985.; A. Rapoport, "The Study of Spatial Quality", The Journal of Aesthetic Education 4/4, Special Issue: The Environment and the Aesthetic Quality of Life, 1970, 81–95.; J. Laird, "Mental Spaciousness", The Monist 31/2, 1921, 161–181.

<sup>2</sup> A. Spiliotis, Illusionism in Architecture: Anamorphosis Trompe l'Oeil and Other Illusionary Techniques From the Italian Renaissance to Today, Manchester, 2008, 6.

<sup>3</sup> Б. Алфиревић и С. Симоновић Алфиревић, "Пројектантски принципи и доживљај просторности у стамбеном простору / Design Principles for Achieving Spatiality in Living Space", *Архишекшура и урбанизам* 48, 2019, 37–53.

space, when the aim is to create a certain visual effect, which is mostly characteristic of larger interiors.<sup>4</sup> In the perception of interior spatiality all senses play a part and the most intensive experience is obtained through visual perception, while equally important are also auditory and olfactory senses.

The aspiration to achieve larger spatiality can also affect functional organization of interior elements, i.e. in situations when the distribution and the use of furniture has a function in enabling a better perception of the space, or when the selection of furniture of certain dimensions serve the purpose of obtaining a proportional harmony with the space size. In both cases, a different experience of spatiality is created, as the same space is seen differently from different positions, which can also be achieved by using smaller or larger pieces of furniture within the same space (smaller pieces make the space appear larger, whereas larger pieces have the opposite effect). In absence of physical options to achieve spatiality, architecture often resorts to illusions, which control the experience of proportions and manifestation of elements. They can achieve the effect of absence of weight, dematerialization of surfaces, symmetries, smaller or larger dimensions and different spatial distances.<sup>5</sup>

Historically speaking, a significant number of interiors were designed illustrating their primary principle of conception – the achievement of spatiality. The earliest known examples were present back during the period of Renaissance and Baroque and some of the most significant examples are Santa Maria at San Satiro (Donato Bramante, 1482), Teatro Olimpico, (Andrea Palladio, 1585), Palazzo Spada, (Francesco Borromini, 1653) and Scala Regia, (Gian Lorenzo Bernini, 1666), all of which show the application of space illusionism in the form of forced perspective. In Santa Maria at San Satiro church, Teatro Olimpico and Palazzo Spada the spatiality effect was created through the principle of convergence of basic planes or segments of space, while in the doorway of the Palazzo Spada the impression of distinct depth was achieved through harmonic decrease of the pillar dimensions and the span between them, by converging their directions and gradual decrease in the height of the ceiling across the depth of space.

Many painters dealt with the synthesis of perceptive qualities of illusionistic paintings with the interior: Andrea Mantegna, Pietro da Cortona, Giovanni Lanfranco, Giovanni Battista Tiepolo, etc. Among them, particularly outstanding were Andrea Pozzo with the painted ceiling in Church of Sant'Ignazio, 1685 and Baldassare Peruzzi with painting of the Hall of Perspectives, Villa Farnese, 1510 in Rome, which changed the perceptive characteristics of the architectural space with the aid of illusionistic fresco paintings.

If, for the purposes of research, we leave aside the application of painters' principles *Quadrature*, (*Anamórphosis* and *Trompe l'Oeil*), generally speaking, spatiality can be achieved through application of various architectural principles, and they can be classified as:

- 1. The principle of space configuration:
  - 1.1. Space unification (application of open-plan)
  - 1.2. Space continuation (application of enfilade and circular connection)
  - 1.3. Space changeability (application of flexibility)
- 2. The principle of dematerialization of surfaces:
  - 2.1. Application of perforated surfaces
  - 2.2. Application of transparent surfaces

<sup>4</sup> F. Al-Zamil, "The Impact of Design Elements on the perception of spaciousness in Interior Design", International Design Journal 7/2, 2017, 178.

<sup>5</sup> K. Klesseck, Architecture of Illusion: an Investigation into Cinematic Deception in Camden Town, London, Bristol, 2014, 7.

<sup>6</sup> A. Spiliotis, Illusionism in Architecture: Anamorphosis Trompe l'Oeil and Other Illusionary Techniques From the Italian Renaissance to Today, Manchester, 2008.

- 3. The principle of illusionism:
  - 3.1. The application of reflective surfaces
  - 3.2. The application of forced perspective
  - 3.3. The application of "bright background"
  - 3.4. The application of coloristic perspective
- 4. The principle of viewpoint orientation

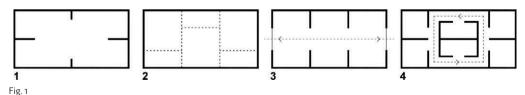
## THE PRINCIPLE OF SPACE CONFIGURATION

The main principle relied upon in achieving interior spatiality is space configuration, which in a wider sense includes a relative relation between parts or elements in a three-dimensional space, while in a stricter sense stands for the procedure of dimensional determination, structuring and functional organization of rooms. A higher level of spatiality can be achieved when the rooms are united in one integral unit, through the principles of open-plan, when they can flexibly connect as necessary, when they are distributed in a linear line, according to the principle of enfilade or in a circular order through circular connection. (Fig. 1)

In architecture, open space stands for the principle of "uniting spaces in a larger unit, where, more or less, the boundaries between independent spatial and functional units are neutralized". Generally speaking, there are two directions in the open-plan concept – internal (opening towards the interior) and external (opening towards the surroundings). Borderline case of internal open-plan is the concept of all-in-one-space, i.e. a situation when within one space frame some fixed or movable partitions have been removed, making the space perceptible in its entirety from any view point.

Space flexibility in architecture most often stands for "the option of occasional change of space, i.e. the principle of super positioning of functions, where in situations when partitions are removed a single space or flowing space can be established". Unlike the open-plan concept where the impression of spatiality is constantly present, the principle of flexibility offers the option of occasional extension or enlargement of the space depth (less frequently the height), depending on the extent of its openness,

<sup>7</sup> In his study, Mihailo Canak stresses the difference between the structure and organization of space.



The structure is seen as the number and character of the rooms, while organization refers to the system of connections between the rooms and their position within the unit. (М. Чанак, Функционална концейција и уйошребна вредносш сшана, Београд, 1976, 304.).

- 8 Ђ. Алфиревић и С. Симоновић Алфиревић, "Отворени план у стамбеној архитектури: Порекло, развој и приступи просторном интегрисању / Open-plan in Housing Architecture: Origin, Development and Design Approaches for Spatial Integration", *Архишекшура и урбанизам* 43, 2016, 49.
- 9 Ђ. Алфиревић и С. Симоновић Алфиревић, "Отворени план у стамбеној архитектури: Порекло, развој и приступи просторном интегрисању / Open-plan in Housing Architecture: Origin, Development and Design Approaches for Spatial Integration", *Архишекшура и урбанизам* 43, 2016, 47.

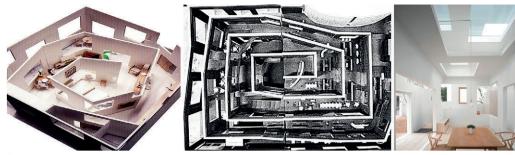


Fig. 2

i.e. position; as well as the number of movable partitions, which make the space undefined in a way as it cannot be viewed as a whole.

Enfilade stands for the principle of linear linking of the rooms, where the windows and doors between the rooms are positioned in long axial lines, thus achieving the impression of great depth, representativeness and the hierarchy of space. Linking the rooms together to form the enfilade is mostly axial, with communication through the central axis, although there are also other forms of enfilade with reduced spaces with the tangent on the moving axis. Although the concept of enfilade shares some similarities with the open-plan, since the connection of smaller spaces is aimed at their visual unity, with enfilade it is not possible to view the space in its entire form, in order to perceive it, the viewer must pass through the space.<sup>10</sup>

Circular connection includes forming of uninterrupted internal communication within the system of linked rooms. It is formed with an aim of establishing continuity of linking rooms and minimizing or neutralizing the feeling of crammed space. Unlike the open-plan concept, where the linking of rooms into one space was the consequence of the aspiration towards physical extension and larger physical comfort, the application of circular connection is aimed towards functional connection and achieving the feeling of larger spatiality. <sup>11</sup>

## THE PRINCIPLE OF DEMATERIALIZATION OF SURFACES

The term dematerialization in the context of this paper stands for the level of physical and visual break down of interior elements (partition, floor or ceiling), which in a certain sense makes the space "porous" and allows the space to be viewed. In a wider sense, dematerialization includes the concept of freeing architecture from the traditional constraints of firmness, stability and durability in the physical, social and psychological context. <sup>12</sup> The application of partitions in the interior is always related to some form of

<sup>10</sup> Ђ. Алфиревић и С. Симоновић Алфиревић, "Пројектантски принципи за постизање просторности у стамбеном простору / Design Principles for Achieving Spatiality in Living Space", *Архишекшура и урбанизам* 48, 2019, 44.

<sup>11</sup> Ђ. Алфиревић и С. Симоновић Алфиревић, "Концепт кружне везе у стамбеној архитектури / 'Circular Connection' Concept in Housing Architecture", *Архишекшура и урбанизам* 46, 2018, 26.

<sup>12</sup> А. Чарапић, "Да ли је материјализација архитектуре неопходно материјална",  $Архи\overline{w}$ ек $\overline{w}$ ура и урбанизам, 22–23, 2008, 25.



Fig. 3

space segregation. Depending on the functions that are divided<sup>13</sup>, i.e. on the fact whether it is necessary to divide the functions due to olfactory, auditory or visual disturbance, the partitions can be solid, partially or completely transparent, movable, fixed, etc. Linking the compatible functions enables the formation of polyvalent spaces, which, with introduction of perforated or transparent partitions, can create multi layers of the space and at the same time larger spatiality.

The use of perforated partitions is primarily used when the space needs to be divided due to aesthetic or psychological reasons, i.e. so that a certain level of intimacy can be maintained. This type of partitions has dichotomous character, similar to filters, as they enable visual connection and achievement of spatiality, but also include visual division. (Fig. 2). The application of transparent partitions is justified when the space must be separated due to factors such as noise or unpleasant scents, while in the visual sense, it can be connected into a whole, as is the case in the situations when the aim is to open the space towards its surroundings, i.e. external open-plan. (Fig. 3). In both cases, the physical boundaries of space are dematerialized, and visual experience of spatiality is determined by a certain adjoining space plane.

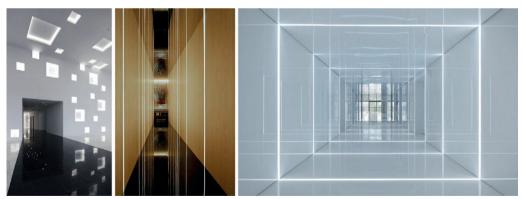


Fig. 4

<sup>13</sup> An example of spatial relations and combining options of functions in the domain of housing was anlysed by Mihailo Canak. By a similar principle, other functions in the public space interiors can be examined. (М. Чанак, Функционална концейција и уйошребна вредносш сшана, Београд, 1976, 177–178; М. Чанак, "Отворен или затворен стан", Архишекшура и урбанизам 38, 2013, 69.).

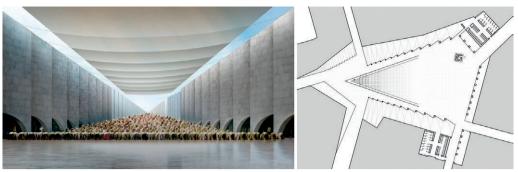


Fig. 5

## THE PRINCIPLE OF ILLUSIONISM

In art, illusionism stands for the use of different techniques which create the image of reality and influence the perception of the viewer. In architecture, this principle is applied primarily with the aim of transforming the experience through manipulation of the perception and by achieving spatiality. The techniques used in the interior in order to obtain illusion of spatiality are mainly based on a well-thought out application of materialization and different effects of the perspective.

The use of reflective surfaces is one of the most powerful procedure for achievement of "virtual" spatiality. Their application makes the space not only change its physical characteristics, but forms the illusion of visual doubling or multiplication, depending on the number of reflecting surfaces and the way they are used. The most intensive effect is achieved by use of mirrors, their opposing or crisscross positioning, which creates the illusion of erased boundaries of the existing space. (Fig. 4). By positioning the mirrors on the opposite side to the source of natural light, the level of brightness of the room increases, creating the effect of larger dimensions.

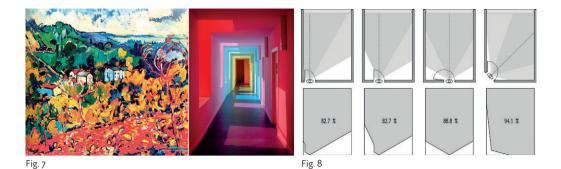
Forced perspective is an optical illusion which creates the feeling of depth, height or relation between the elements which in reality do not exist. In architecture, this kind of illusion of spatiality is most often achieved by converging the opposing planes of the space or harmonious reduction of elements and distance (span) between them. (Fig. 5)

The principle of "bright background", as found in aerial perspective in painting arts<sup>15</sup>, includes the procedure of making the space brighter, where the surfaces and objects closer to the viewing point seem darker and gradually get lighter as the viewer steps back from them. By use of bright background, the spatiality can be achieved in two ways, primarily, by positioning the source of natural light on the opposite end from the viewing point or by gradual intensity of artificial lightning in the same direction. By positioning the doors or windows to the bright background of the characteristic line of sight creates the impression of opening the inner space towards the outside, which contributes to visual extension of the place. (Fig. 6)

The coloristic perspective is the procedure of visual expression of spatiality by means of optical char-

<sup>14</sup> A. Spiliotis, Illusionism in Architecture: Anamorphosis Trompe l'Oeil and Other Illusionary Techniques From the Italian Renaissance to Today, Manchester, 2008, 21.

<sup>15</sup> Aerial perspective denotes a procedure of creating the illusion of space depth on drawings and paintings, by modulating the tone value or color, in order to simulate the change created by the influence of atmosphere on the objects placed at different distances. (L. Da Vinci, *Treatise on Painting*, London, 1877, 125).



acteristics of warm and cold colors. Considering that the warm colors have the expansive effect (bringing the objects closer), and that cold colors have introverted effect (distancing), the forefront plans are emphasized by means of warm colors (red, yellow and orange), while far away plans are distanced by cold colors (blue, green and violet). (Fig. 7) This principle is largely present in painting art, while in architecture it is used less frequently, as the use of coloristic solutions is mainly considered a peripheral method for achieving the visual expression.

#### THE PRINCIPLE OF VANTAGE POINT ORIENTATION

The application of vantage point includes the procedure of orientation of position or directing the path from which the spatiality is observed. Depending on the position or the form of observation of space, the spatiality perception can significantly differ. The same space can seem smaller from a certain position, or larger from another one, which can be of great significance in the domain of functional organization of space, if at the time of design we take into consideration the observation of space during its exploitation. (Fig. 8)

A variant of this principle is anamorphosis, which includes observation of distorted image of the space. By looking at this image from a certain position and in a certain way, the image shows its real form. The application of anamorhosis is very rare in architecture, as its wider use would require a formalistic approach to design, which would be in conflict with the functional needs of its users.

## DISCUSSION

All of the mentioned principles, to a bigger or lesser extent, can influence the achievement of perception of spatiality, which primarily depends on ways and scope of their use. It should be taken into account that most principles can be combined, which contributes to easier achievement of spatiality levels, as their optical effects are complementary. Most often applied are combinations of principles within the same categories. In the domain of space configuration, most frequently the principles of enfilade and circular connection are complemented, open-plan and flexibility, although other combinations are also possible. In the domain of dematerialization of surfaces and spatiality illusions, most frequently used combinations are perforated and transparent surfaces and the principle of bright background, which enable internal and external space opening. It is important to stress that the use of certain principles has different spatial effects, i.e. their effects can be experienced: a) from any segment of space (open- plan, circular

connection, perforated and transparent surfaces), b) by passing through certain trajectory (coloristic perspective and the principle of bright background) or c) from a certain vantage point (anamorphosis).

Based on previously conducted analyses, it can be concluded that interior spatiality is determined by functional and perceptive starting point (motifs). Functional aspect primarily unites principles of space configuration which are most often derived from functional organization of space, while the perceptive aspect mostly refers to principles of dematerialization, illusionism and viewpoint orientation, which are closely related to aesthetic inclinations of the architect.

## CONCLUSION

Achieving spatiality is one of the universal motifs in designing interior and every research in this field, more or less, improves the area of architectural theory of space. The contribution of this paper is in the first place to analyze and compare design principles aimed at achieving higher levels of spatiality, as well as to systematize them. The mentioned principles constitute a clear and precise base for conceptualization of architectural spaces. Further research could be directed towards multi-disciplinary research that might examine the options of application of the principles we mentioned in other areas, such as sociology, psychology, art, etc.

## Acknowledgements:

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#### **ILLUSTRATIONS**

- 1: Achieving spatiality through space configuration: 1) open plan, 2) flexibility, 3) enfilade and 4) circular connection (Source: author's sketch)
- Постизање просторности путем конфигурације простора: 1) отворени план, 2) флексибилност простора, 3) анфилада и 4) кружна веза (Извор: скица аутора).
- 2: The application of perforated surfaces in achieving spatiality (Spiral House Project, Sou Fujimoto, 2007 (www. designboom.com, photo: Sou Fujimoto Architects); Musashino Art University Museum & Library, Tokyo, Sou Fujimoto, 2010 (www.archdaily.com, photo: Sou Fujimoto Architects); House N, Oita, Sou Fujimoto, 2008 (www.archdaily.com, photo: Sou Fujimoto Architects)).
- Примена перфорираних површина у постизању просторности (Пројекат спиралне куће, Су Фуџимото, 2007 (www.designboom.com, фото: Су Фуџимото архитекти); Музеј и библиотека уметничког универзитета Мусашино, Токио, Су Фуџимото, 2010 (www.archdaily.com, фото: Су Фуџимото архитекти); Кућа H, Оита, Су Фуџимото, 2008 (www.archdaily.com, фото: Су Фуџимото архитекти)).
- 3: The application of transparent surfaces in achieving spatiality (Derek Lam Store, New York, SANAA, 2009 (www. designboom.com, photo: SANAA); Glass Pavilion, Toledo, SANAA, 2006 (www.archdaily.com, photo: Iwan Baan); Glass House, New Canaan, Philip Johnson, 1949 (www.schulmanphotography.com, photo Richard Schulman)). Примена транспарентних површина у постизању просторности (Продавница Дерек Лем, Њу Јорк, САНА, 2009
- (www.designboom.com, фото: CAHA); Стаклени павиљон, Толедо, САНА, 2006 (www.archdaily.com, фото: Иван Бан); Стаклена кућа, Њу Кејнан, Филип Џонсон, 1949 (www.schulmanphotography.com, фото: Ричард Шулман)).
- 4: The use of reflecting surfaces in achieving spatiality (Cube Tube, Jinhua, SAKO Architects, 2010 (www.archdaily. com, photo: Misae Hiromatsu); MARS the Spa & Boutique, Tokyo, Curiosity, 2008 (www.designboom.com, photo: curiosity); Glass office SOHO China, Shanghai, AIM Architecture, 2013 (www.archdaily.com, photo: Jerry Yin)).
  Примена рефлективних површина у постизању просторности (Кјуб Тјуб, Јинхуа, САКО архитекти, 2010 (www.archdaily.

com, фото: Мисе Хиромацу); Спа и бутик МАРС, Токио, Кјуриосити, 2008 (www.designboom.com, фото: Кјуриосити); Стаклена канцеларија СОХО Кина, Шангај, АИМ архитектура, 2013 (www.archdaily.com, фото: Џери Јин)).

5: The application of forced perspective in achieving spatiality (Vanishing Mosque, UAE, RUX Design, 2010 (www. dezeen.com, photo: RUX Design)).

Примена форсиране перспективе у постизању просторности (Ишчезавајућа џамија, УАЕ, РУКС дизајн, 2010 (www.dezeen.com, фото: РУКС дизајн)).

6: Application of aerial perspective and the principle of "bright background" in achieving spatiality (Jeremy Mann, 5th Ave Midday in Blue, 2015, Oil on Panel, 30.5×30.5 cm, EVOKE Contemporary Gallery, Santa Fe; Berlin, Axthelm & Rolvien, 2010 (www.axthelm-rolvien.de, photo: Klemens Ortmeyer))

Примена ваздушне перспективе и принципа "светлог исходишта" у постизању просторности (Џереми Ман, Пета авенија у подне у плавом, 2015, уље на платну, 30.5×30.5 cm, EBOKE Савремена галерија, Санта Фе; Берлин, Екстелм и Ролвејн, 2010 (www.axthelm-rolvien.de, фото: Клеменс Ортмајер))

7: The use of coloristic perspective in achieving spatiality (Maurice de Vlaminck, Bougival, 1905, Oil on canvas, 82.5  $\times$  100.6 cm, 1985.R.82, Dallas Museum of Art, The Wendy and Emery Reves Collection; Educational Centre in El Chaparral, Granada, Alejandro Muñoz Miranda, 2010 (www.archdaily.com, photo: Fernando Alda)).

Примена колористичке перспективе у постизању просторности (Морис де Вламинк, Боугивал, 1905, уље на платну, 82.5×100.6 сm, 1985.R.82, Музеј уметности у Даласу, Колекција Венди и Емери Ривс; Образовни центар у Ел Чапаралу, Гранада, Алехандро Муњоз Миранда, 2010 (www.archdaily.com, фото: Фернандо Алда)).

 $8: A chieving \ spatiality \ by \ means \ of \ vantage \ point \ orientation \ (Source: author's \ sketch)$ 

Постизање просторности путем кадрирања референтне тачке (Извор: скица аутора)

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#### ПРОЈЕКТАНТСКИ ПРИНЦИПИ ЗА ПОСТИЗАЊЕ ПРОСТОРНОСТИ У ЕНТЕРИЈЕРУ

Резиме: Постизање просторности је једна од есенцијалних тема када је у питању пројектовање амбијента у коме се жели постићи одређени визуелни ефекат, или остварити виши ниво просторног комфора. Методе којима се то постиже могу бити различите: од уобличавања физичких граница простора применом отвореног плана, флексибилности, анфиладе или кружне везе, делимичног, усмереног или потпуног отварања простора према окружењу, па све до примене неке од оптичких илузија којима се редефинише доживљај граница простора. У зависности од примењеног метода, просторне контуре могу бити јасно одређене и мање или више очигледне, или се може формирати простор који не открива све квалитете приликом статичног посматрања, већ је неопходно проћи кроз њега да би се сагледао. У одсуству физичких могућности, али и као допуну претходних приступа, могуће је изменити перцептивну слику простора виртуелном доградњом помоћу неке од оптичких илузија. Постоје различити приступи којима се може утицати на визуелну перцепцију посматрача и формирање представе о границама простора. Циљ рада је да се размотре и систематизују основни пројектантски принципи којима се у ентеријеру може постићи виши ниво просторности. У анализи су размотрени карактеристични примери, код којих је примењен бар један од пројектантских принципа (отворени план, флексибилност простора, анфилада или кружна веза) којима се у физичком смислу конфигуришу границе простора, као и различити приступи којима се може утицати на перцепцију посматрача и формирање виртуелне представе о границама простора, као што су примена боје, светла или огледала у ентеријеру.

Кључне речи: архитектура, ентеријер, простор, просторност, пројектантски принципи

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