#### The art integration in contemporary architecture

#### A integração da arte na arquitetura contemporânea

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ABSTRACT - This paper is dedicated to a new scientific approach to formation of a coherent system of architectural activities, achievement of artistic entity of an architectural work and integrity of architectural environment under recognition of artistic benchmarks. It is the goal of the work, to assert the concept of artistic integration in the contemporary architecture by means of solution of the following tasks: study of integral scientific theories the architecture is basing on; study of artistic integrity within the environment context; discovering of dialogue directions of fine art and architecture; analysis of methods of contemporary architects; development of author's concept of integration "fields", theoretical model and principles of artistic integration. The hypothesis states, it is the artistic integration which enables to interface diverse conditions, tendencies and approaches in the direction of creation of coordinated process and integral image of the latest architecture. The methodology is based on interconnected studies of architecture, fine art, environment design, philosophy as phenomena of the current world culture. The following theoretical provisions are formulated: artistic integration "field" concept; principles of spatial and temporary integration; interaction principles of fine art and the latest architecture; individual principles of artistic integration in the work of an architect; versatile principles of integration metasystem; a theoretical model of artistic integration in the latest architecture in its multidimensional integrity. The paper is illustrated by author's diagrams and photos.

**Keywords:** field, art integration, contemporary architecture, architects, art, concept, theoretical model, principles, city, environment.

RESUMO - Este artigo é dedicado a nova abordagem científica para formação de um sistema coerente de atividades arquitetônicas, realização de uma entidade artística de um trabalho arquitetônico e integridade do ambiente arquitetônico sob reconhecimento de "marcas de referências" artísticas. Este é o objetivo do trabalho, afirmar o conceito de integração artística na arquitetura contemporânea através da solução das seguintes tarefas: estudo de teorias científicas integrais em que a arquitetura se baseia; estudo da integridade artística dentro do contexto ambiental; descoberta de direções de diálogo de belas artes e arquitetura; análises de métodos de arquitetura contemporânea; desenvolvimento, por parte do autor, do conceito sobre campos da integração; modelo teórico e princípios artísticos de integração. A hipótese afirma, é a integração artística que permite interagir em diversas condições, tendências e abordagens na direção de criação do processo coordenado e imagem integral da arquitetura contemporânea. A metodologia é baseada na interconexão de estudos de arquitetura, belas artes, design ambiental, filosofia como fenômenos da cultura mundial atual. As seguintes colocações teóricas são formuladas: conceito de campo de integração artística; princípios de integração espaciais e temporárias; princípios de interação entre arte e a arquitetura contemporânea; princípios individuais de integração artística no trabalho de um arquiteto; princípios versáteis de metasistemas integrados; modelo teórico de integração artística na arquitetura atual na sua integridade multidimensional. O artigo é ilustrado por diagramas e fotos do autor.

Palavras-chave: campo, integração da arte, arquitetura contemporânea, arquiteto, arte, conceito, modelo teórico, princípios, cidade, ambiente.

Development of the concept of the art integration is relevant in the context of the contemporary architecture and culture in general as a way to solve the fundamental problem of the loss of integrity and the loss of the artistic qualities of the architectural environment. The art integration is treated as a scientific system of realisation of multidimensional artistic potential of environment, the theoretical method of architectural and art synthesis, the artistic instrument of social communication in architecture, a method of finding interconnections in the context of contemporary trends of architectural science, philosophy, and art. A number of fundamental problems of architectural theory and practice are associated with the

development of the artistic side of the architect creativity and the artistic integrity of his works at the present stage of civilisation.

Prerequisites for reflection were the architecture crisis, where the penetration of non-artistic grounds, tasks, methods is natural and irreversible. And the need for the humane and artistic side of the profession still looks like a dream of perfection. Given such a duality, it seems that the effective way to return and approve the architectural and art relationship will not be the artificial introduction of some decorative elements or the aestheticization of creativity, but the organic creation of a new integrity with initial participation of artistic principles.

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The tendency to estrangement of man from architecture on the level of the author-architect, the consumer-recipient and on the level of a work is seen as an underlying problem of architectural activities. The side effect of the all-time high freedom in creation of forms is the excessive focus on external effects and visual appeal which is also often accompanied by neglect to historical, cultural and social responsibility of the architect. Development and communication of the related creative fields have led to the interpenetration of architecture, philosophy, science, design, actual art, which makes self-determination of the profession difficult.

It is proposed to rely on the provisions of the thesis for the degree of Doctor of Architecture "The concept of the art integration in the contemporary architecture" (the thesis was defended by the author of the article in 2014) on a methodologically interconnected system as a common scientific approach to identify new art values of architecture and architectural activity (Dutsey, 2013):

- integral approaches and artistic perspectives of modern science;
- architectural and art integration in space and time:
- latest interactions of architecture and other types of art;
- the work of the architect and author's concepts of the art integration.
- At the level of an architectural work, the architectural environment or the process of architectural activities, the art integration can be represented as:
- the phenomenon of artistic integrity of the architecture art;
- the process of creating stylistic harmony in the architect's work on the basis of the laws of art;
- the relation of architectural creative work to art, science and philosophy through the language of art images;
- the research methodology of architectural activity as the multidimensional unity of its components.

For systematisation of the art-architecture interactions, the author has introduced three "fields" of the art integration: spatial-temporal, art and individual-personal ones. The spatial-temporal "field" combines the aspects of interpretation of space and time in architecture. The art "field" is based on the interpenetration of different types of art and architecture. The individual-personal "field" realises the individual basis and reflects the system-forming function. The poly-integration (meta-system of integration) interconnects the system of the "fields" and expresses the multidimensional integration potential of the contemporary architecture.

In the work "Space and substance. From function to space", Rappaport (2012) dwells on the predicted appearance of the idea of architectural substance following

the perception of the space as a high force field, "new understanding of time combined with the understanding of space as an environment permeated with force lines and force stresses. This understanding has caused gradual shift of the centre of academic pursuits in the architectural ontology from the complex of spatial-temporal categories to the idea of substance" (Rappaport, 2012, p. 23). Substantiality is viewed as a way of integrated consideration of architecture and spatial-temporal context, as well as of daily activities and experiences of a person, his (her) memory, images, and associations.

The critic Buchanan in the series of articles called "The Big Rethink" states that "modernism" (the achievements of modern civilisation in the broadest sense) undergoes crisis in the architectural theory, practice and human thinking because of the limitations of materialistic thinking. In the key article "The Big Rethink: Integral Theory" the author uses the "integral theory" developed by the American philosopher Ken Wilber, who built diagrams of human development with account of material and spiritual aspects, as a basis (Buchanan, 2012). According to Buchanan, the main problems are related to the architect's self-perception and to the perception of architecture as a multidimensional phenomenon of life arrangement. These problems are the problems of moral, ethical, and social responsibility of an architect, of choosing social values and the direction of mankind's further development, the problems of the integrity of a person in the present and the future. People's estrangement from the environment of their life activities turns them into consumers, outside "observers" and cannot be "cured" by the introduction of the fashion trends of environmental consciousness, energy saving, etc. (Fiumara, 2013, p. 39-50).

The concept of the "field" is used here as a metaphor to describe numerous phenomena of the contemporary world of architecture in their dynamic equilibrium. The chosen terminology echoes the famous theory of "field conditions" in the contemporary architecture of the American researcher and architect Stan Allen who points to the transformation of the architectural world view and focuses on the "field geometry" as a quintessence of manifestation of the new structural approach to the organisation of an architectural object (Allen, 1997, p. 24-31). Supporting Allen's idea, Dobritsyna (2004) considers the architectural object as a "field" in one of the chapters of her major book *From Postmodernism to Nonlinear Architecture* complementing the theme with reference to architectural synergy.

As a scientific hypothesis, it is envisaged that the concept of the art integration is fundamental for achievement of the integrity of the art feature in the contemporary architecture and is based on a spatial-temporal context, art principles, the individual creative vision of the author or the addressee of architecture.

The hypothesis is based on the following statements:

- it is the art integration that allows to unite the diverse phenomena of the whole: architectural work, architectural environment, architectural activity;
- mechanisms of the art integration are presented simultaneously in the phenomenon of the author's work of the architect;
- the concept of the art integration is based on the assertion of the interconnected existence of integrative processes and processes of differentiation occurring in architectural art;
- the required integrity is realized in the system of "fields" of the art integration: spatial-temporal, artistic, individual-personal, which are metaphors of the multidimensional integral systems inherent in the architecture.

The hypothesis we proposed refers to the latest artistic approaches and the field of the up-to-date artistic strategies in architectural activities: illusory, visual, virtual, mediative, scenario, play ones, as well as to the aesthetic and creative aspects of the contextual, natural-humanistic, design and critical-theoretical directions of architecture development.

### The art of architecture in the contemporary world

There are many definitions of architecture as a form of art. In the context of topics under discussion, the ones that consider artistic nature within the broadest, integral sense are the most interesting for us. Let us distinguish different sides of architecture as a form of art:

- the creative comprehension of the Universe by an individual and transfer of the author's worldview through architectural means;
- the architecture having a strongest artistic-imaginative component and focused on the perception of the beauty of architectural forms;
- the art of integrating harmoniously all the profession requirements and aspects in a single integrated project or object;
- the architectural artwork of the highest artistic merit a "masterpiece".

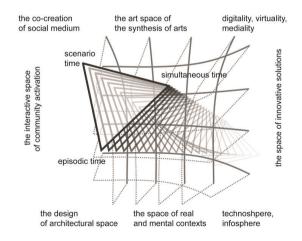
In the process of art integration, the art of architecture harmoniously integrates necessary universal and professional, natural and artificial, collective and individual, conceptual and visually expressive factors into a single artistic unity – the architectural artwork expressing the author's personal world image with the help of the architect's individual language in contexts of time and place. The types of art integration are formed under the

influence of the relevant factors influencing the development of architecture: culturological, contextual, humanistic, technology-related, informational, environmental and poly-integrational ones. The element of art, determining the qualitative strategy of architectural-artistic synthesis, and the incipience of a fundamentally new integral quality of architecture, is the fundamental criterion of integration.

## The spatial-temporal and architectural-art integration

Commitment to integrity is one of the traditional criteria for spatial-temporal construction viability (Figure 1). Considering the fundamental category of space as the "field" of artistic integration, we will try to identify its generic integrative potential with respect to the nature of architectural creativity (reference to the author's work). The typology of integrated spaces of a modern city includes social and cultural centres, media complexes, open urban spaces (residential and public), as well as buffer zones forming the "gaps" in the urban contexture.

In the analysis of the spatial art integration, the theoretical models formulated by Academician A.V. Ikonnikov prove to be essential landmarks: the perceptual and artistic spaces (Ikonnikov, 2006, p. 58-59). The perceptual space "connects the perceptions (presented in the integral expression) of real space by the human senses". The artistic space involves a complex of the artistic images of interacting arts and conditions for their synthesis. Both models take into account personal attitudes and represent two poles: immediate perception and the structured visual system. In conflict between these "poles" lies the dramaturgy of image perception of space, which is filled with symbols everywhere and, at the same time, leaves room for their free interpretation.



**Figure 1.** The graphical chart of the spatial-temporal "field" of art integration.

Source: Dutsev (2013, p. 359).

Integrative consistent patterns related to the category of time are represented by the variants of perception of the architectural space: simultaneous, scenario or episodic ones. The simultaneity in the artistic culture is embodied in a one-time action, in the perception of different types and genres of art, of individual artistic languages, and of personal creative systems. The phenomenon under consideration is understood as an integrated form of the creative concept presentation in a single moment in time, a special methodology for embedding the work in time, and a way of perceiving reality. In relation to the architectural space construction, the simultaneity principle manifests itself in the representation and perception of the entire architecture object simultaneously; with that, time is compressed to the points-instants. The scenario factor involves organisation of the motion trajectory inside the object or ensemble, which is characterised by shifts in spatial experience: the extent, lighting effects, the nature of visual expansions. The fragmentarity, implying spontaneous or selective perception, plays an important role in forming the artistic image of architecture in the recipient's mind. As in the first case, time appears in the form of a moment, but essentially without simultaneous "compression", meaning or image concentration, without necessary comprehension of the whole integrity of the work.

Space and time "meet" in the architectural form that captures the style, conception, language of a particular architect and the era as a whole (reference to the author's work). In this integral perspective of perception the form is a tangible result of the architect's creative work and the real message sent to the recipient — actual and potential. Thus, it is quite natural to consider architecture as the collective "form" of time — a form of art "chronotope". From the perspective of time-transgressive historical-cultural context of architectural creativity, the concept "Genius Loci" in the interpretation of identity of space and the archetypes of its perception, which has come into general use in the academic community, serves as an integrative base (C. Norberg-Schulz, K. Lynch).

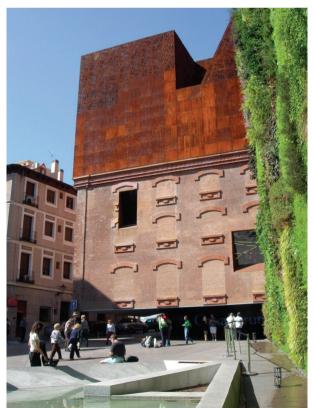


**Figure 2.** The "Novotel" hotel complex in St. Petersburg, architect M.A. Mamoshin (2002-2005).

Source: Photo by Dutsev (2009).

Mamoshin, an architect from St. Petersburg, chooses stylisation as a method of creating the "culturological underlayer" for designing — "vision of the future in the context of the past" (Mamoshin, 2007, p. 118), which is based on the concept of anti-entropic development by Russian religious thinker N.F. Fedorov. The culturological context of development of the ensemble of the "Novotel" hotel complex (Figure 2), adjacent to the Nevsky Prospekt, refers to the open spaces and the prospects of an ideal city (Mamoshin, 2002-2005). In his work, D. Chipperfield programmatically uses a certain set of the author metaphors of the order system at the level of abstraction, for example, in the Museum of Contemporary Literature in Marbach-am-Neckar (Germany, 2006).

The architecture of the Cultural Forum in Madrid by J. Herzog and P. de Meuron (Figure 3) acquires the features of art installation, showing an extravagant play of times and styles in the interweaving of different identities of urban space, the "city", the "square", the "house", the "garden". The individual language of the architect P. Eisenman, based on the principles of deconstruction, combines the author's understanding of form and time - it is a continuous process of generating meanings and



**Figure 3.** The building of the Caixa Forum Madrid, architects J. Herzog and P. de Meuron (2005).

Source: Photo by Dutsev (2008).

form transformations carried out under the influence of attraction of the different poles. Using landforms in the project of the City of Culture of Galicia in Santiago de Compostela, the master maintains the conceptual opposition: creation of "unnatural nature" (Belogolovsky, 2009, p. 66-71), growing out of the "footprints" of the author's concepts of space and time based on the scallop shell - the symbol of the city.

The "field" of the spatial-temporal integration pervades through in the system of the city, which is also a constantly renovated environment of social action, divergent professional interests and creative aspirations by the basic layers of integration: environmental, activity, conceptual and universal ones. At that, it is the artistic nature, which is involved in every element of the multipolar system and creates a comprehensive artistic image of the work in the architect's creative work, in the recipient's mind, in the work of architectural art.

## The integration of art into the contemporary architecture

For considering the art integration in architectural work let us turn to the interrelated analysis of the primary language pulses and to the art system established in science (Figure 4). It is common to single out the type, the style, the genre, as well as the artistic conception of the work. The kinds of creative work can be classified under the spatial, temporal and spatial-temporal groups. Such classification determines the directions of the synthesis of arts. In turn, the "primary elements" of the expressive language associated with the perception peculiarities are the "quanta" of human creative thinking involved in the birth of the variety of all forms of creative understanding of reality (reference to the author's work).

We include traditional artistic factors in the analysis of the interaction between architecture and other forms of art: colour and line (pictorial and graphic); plastic and volume (sculptural); word and intonation (literary and poetic); sound and melody (musical); movement and gesture (theatrical and choreographical), as well as relatively new factors and developing art forms: the frame (photographic and cinematographic); digital algorithm (digital). A special integrative role is played by the factors of multi-element (synthetic) art forms: theatrical, cinematographic, and the multi-faceted factor of design related to architecture. The current trends of conceptual creative work, visual appeal or show, fashion phenomena occur as the processes that are typical for all kinds. It should be noted that the system is in principle understood to be flexible and dynamic and every factor in it can be expressed in a variety of artistic phenomena.

This technique of selection and development of the primary pulse is largely consistent with Kandinsky's provisions and uses the primary elements purified from the usual attributes of the respective branch of art. Analysing the possibilities of artistic synthesis in the book *On the Spiritual in Art*, Kandinsky distinguished the conceptual and external convergence of the forms of creative work. "Pure sounding – non-objective supersensual vibration" of each of the art forms underlies their fundamental synthesis (Kandinsky, 1992, p. 32). The "ingression" of the expressive code into the components of the architectural triad can be traced at different levels: from fundamental to the external, decorative one. Dobritsyna notes conceptual, formal and stylistic interaction between architecture and art (Dobritsyna, 2004). We should also consider the virtual area of the project and theoretical integration, as well as the synthesis of architecture and art impressions, causing the phenomenon of synesthesia – sharing feelings.

Despite the multidimensionality of the art field of integration, there are two fundamental vectors of the existence of the factors of arts and the architecture-and-art system as a whole: functional and artistic-symbolic ones. In most cases, the first is connected to the direct use of the language of art by an architect: the design graphic drawing; the theoretical text; playing music, theatrical performances, choreography, etc. in the architectural space. The symbolic way implies the similarity of the language art systems and the perceptions thereof, relatedness on the level of techniques and consistent patterns of the architect's authorial style and has a much more subjective nature. Architecture is affected by both the elementary language pulse and the existing art system. With that, the art of architecture preconditions the birth of the architectural-artistic unity of fundamentally new integral nature, which is different from the features of the interaction members. Considering the artistic world of architectural creative work, we can speak about "fine arts", "graphics", "plastic arts", "music", "dance" and "theatre" of architecture.

In the system of integration, architecture possesses a spatial factor as the primary element of architectural

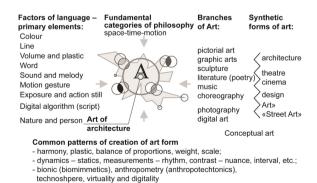


Figure 4. A graphical chart of the art "field" of the art integration.

Source: Dutsev (2013, p. 359).

art from the beginning, and the factors of other art forms often assume spatial dimension. Thus, the synthesis of plastic arts traditionally appears in the forms of monumental painting and sculpture. The colour "fields" of architecture are perceived subjectively in the contexts of cultural tradition, personal experience and emotional state. We should distinguish two intersecting paths in the contemporary concept of colours: design and artistic ones that are different from each other by the criteria of utilitarian use. Along with the aesthetic problems, colour in design solves those of function, comfort, ergonomics and economic attractiveness as in "signal" colouristics of MVRDV. The artistic approach focuses on the unique image of the work, which is associated with temperamental paintings by A. Rossi, B. Tschumi, M. Fuksas, R. Piano or sophisticated graphics by J. Nouvel, J. Herzog and P. de Meuron, D. Chipperfield (Figure 5).

Choice of priority of volume or plane represents actual opposition to the "sculpturesqueness" or "screenness" in contemporary architecture. Along with those

**Figure 5.** The City of Justice in Barcelona, architect D. Chipperfield (2008).

Source: Photo by Dutsev (2012).

"poles" one of the apparent trends is the architecture of the enclosures, surfaces, membranes, realising the sculptural potential of architecture (Figure 6).

Analysing the existing various forms of verbal factor in architectural creative works let us consider the following range: the letter, the word, the text, the literary work. An architectural object can be metaphorically interpreted as a "letter" of the spatial "text", in the construction of which we can find analogies with language rules: spelling, syntax, morphology, grammar. Functionally, the literary aspect is realised directly in the form of the author's word: the project concept, the manifesto, the monograph. Symbolically, it implies the presence of the author's "direct speech" and embeddedness in the general cultural context through citations from various sources.



**Figure 6.** The Museum of Contemporary Art in Barcelona (MACBA), architect R. Meyer (1995).

Source: Photo by Dutsev (2008).



**Figure 7.** The City of Music (The Cité de la Musique) in Paris, architect C. Portzamparc (1984-1995). The Western part – the National Conservatory.

Source: Photo by Dutsev (2007).

The literary "field" is the area of symbols and signs, interpreted over time. The architectural "prose" tells its "story" following the "scenario", and the architectural "poetry" uses rhythm, intonation, melodiousness, and musicality.

The relation between architecture and music can rightfully be considered one of the most debated analogies. The architectural-musical integration is based on the relationship of composition techniques and the similarity of artistic impression, and musicality refers to the temporal aspect and characterises the perception in motion. The musical "field" of architecture is multi-layered: the acoustic phenomenon, "imaging" of sounding with the help of the language of architecture, organisation of space similarly to a musical work. Musicality can be a principle of the author's system of designing (Figure 7), or be the basis for real co-creation of an architect and a musician as in case of I. Xenakis who created a unique method of notation with use of the language of architectural graphics (Birgit, 2012).

The integration of choreographic arts and architecture is primarily based on the motion which refers to the dynamics in architecture and determines the nature of dance in general. Contemporary choreography is often a

factor of the animated motion not only in a specialised architectural environment – i.e. the performances in the iconic modern interiors – the opening of the MAXXI Museum in Rome or the creative work of the NMK group – New Movement Collective (http://www.newmovement. org.uk) as well as the contemporary phenomenon of the street dance associated with the informal city culture. The symbolic field implies "choreography" of the architecture, its form and design (Kiek, 2011). The motif of motion is relevant for many architects: S. Calatrava (Figure 8), F. Gehry, Z. Hadid, O. Decq, M. Fuksas, the Coop Himmelblau (company), Asymptote, Morphosis, etc.

Let us consider relatively new artistic factors that reflect the transformation of thinking of modern people: photography, cinema and digital design. Integration of the aesthetics of a film frame in architecture concurred with the tendencies to "photographic exactness" and "film looking" of perception, which have outlined the optical field of architecture. In the contemporary architects' works one can discover various facets of a film-making process: script, directing, camera work, editing and, with a certain degree of approximation, special effects in the form of interior, environmental, and lighting design.



**Figure 8.** The Tower "Turning Torso" in Malmo (Sweden), architect S. Calatrava (2005).

Source: Photo by Dutsev (2008).



**Figure 9.** The Arab World Institute in Paris, architect J. Nouvel (1987).

Source: Photo by Dutsev (2011).

A range of techniques of architectural "optics" is formed: the "close-up", the "focus" and the "acutance", "multiple exposure", which are used in the transparent and media architecture of glass and which are becoming the signs of authorial style (Figure 9).

The digital algorithm is implemented in the architect's work as a technical, artistic and structure-forming factor, which possesses the features of digital art (Spiller, 2009). The rational principle determines functional and technological capabilities: adaptability and interactivity; algorithms for recording and processing various parameters; generation of complex forms (Figure 10). The digital factor in conjunction with the current trends of informational-and-visual culture promotes the imple-



**Figure 10.** The Mobile Art Pavilion in the courtyard of the Arab World Institute in Paris, architect Z. Hadid (Project of 2008) (2011).

Source: Photo by Dutsev (2011).



**Figure 11.** The project "Lift forces" architect-artist X. Juillot. Nizhny Novgorod (2012).

Source: Photo by Dutsev (2012).

mentation of the strategy of mediality, developing the illusory principle of space and working with the form and, thus, constituting the emotional-symbolic layer. The illusiveness inspires many adherents of the miracle aesthetics in the contemporary architecture: J. Nouvel, Z. Hadid, P. Schumacher, M. Nowak, G. Lynn, the NOX Company and others.

The multi-element forms of creative work, especially, theatre, films, television, contemporary choreography correlate with architectural tendencies towards "directing" and "spectacularity". Despite the conditionality of such relationship, a number of phenomena and approaches of performing arts can be regarded as relevant principles of architecture: "scenarioness", accentuated visual expressiveness, formation of volumes and spaces as the mise en scene ("acting area") of the performance, architectural "scenery", "frame rate" of spatial experiences in motion. The principle of theatralisation, which has a long tradition, expands its scope and turns into a factor of the theatrical-cinematic integration and an architectural show (Figure 11).



**Figure 12.** The Cascade Complex in Yerevan, architects A.I. Tamanyan (concept), J.P. Torosyan (1980s-2010).

Source: Photo by Dutsev (2013).

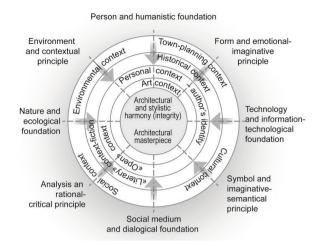
Another synthetic sphere of activities is design – a multidimensional phenomenon which is related to architecture and actively interacts with it. Being a progressive method of project activities, design extends to many areas of culture: object, interior and environmental, graphic, media areas and fashion design. The focus on the most innovative, sometimes tendentious, solutions as well as preference of working with form and modern technology can be considered to be the distinctive feature of architectural design. In architecture, design techniques and fashion trends transform the criteria of scale, materiality, style and sometimes erode their foundations.

The integration of natural factors into architecture is advancing in the conceptual, artistic and constructive-technological directions. It includes the architectural bionics, biomimetic principles, "green" architecture, and landforming. "The Art of the elements" has an ancient cultural tradition and manifests itself in most cases on the level of the "field" of natural phenomena latently. The strategy of naturalness and humanity, which in many ways serves as the antithesis to the strategies of conceptual or technological nature, is implemented. Architecture as "the Art of the elements" acquires the quality of naturalness: the nature itself and the other, man-made artificial nature are connected, which results in beneficial effects of an architectural object on the recipient (Figure 12).

The factor-by-factor analysis testifies to the existence and development of three strong centres of gravity of the artistic "field" in the modern culture: the "concept", the "theatre" and the "design" as well as the universal natural-humanistic basis of architectural activities. There are these centres that combine the most popular integrative trends of the architectural art: conceptuality, theatricalism, spectacularity, scenarioness, mediality, illusiveness, the Art of the elements, digitality and virtuality.

### The creative work of contemporary architects in terms of the art integration

The art integration in the creative work of a contemporary architect is considered within the system of the individual-personal integrative "field", which has a special system-forming meaning, generating creative impulses in the author-architect's work and emotional and sense-bearing response in the recipient's perception. The "field" approach allows emphasising integration centres of the creative focus of a master, while maintaining the necessary degree of freedom to let the multifaceted personal field of the architect combine several, sometimes contradictory trends (Figure 13). Drawing on the most universal manifestations of unity, we identify several interconnected "centres": functional and rational, humanistic and phenomenological, natural and environmental, engineering and technological, social and dialogical principles as well as intuitive and imaginative-symbolic,



**Figure 13.** A graphical chart of the individual-personal "field" of the art integration.

Source: Dutsev (2014).

theoretical and critical, semantic and archetypal bases. In the dynamic state of artistic landmarks certain centres can be shared by architects working in different styles, and also can be actualised in the author's work with varying regularity. It is proposed to systematise and to consider the most popular trends in the contemporary architectural practice from the perspective of the architectural and art integration (reference to the author's work).

The key positions of the architecture of artistic representation of the order and economy of expressive means was formed already in the twentieth century. R. Meyer, J. Sterling, D. Chipperfield, A. Siza, S. Braunfels and others can be identified as its adherents mainly interpreting and refracting the line of modernism from the perspective of creative artistic temperament. The rootedness of their creative principles in the traditions of the 20th century plastic culture represented in painting, art drawing, sculpture and the aesthetics of architecture itself is obvious in the context of art.

The concept of the art integration based on the development of Meyer's geometric harmony follows the fundamental idea of order: strict proportions of volume-spatial composition, purity of geometric constructions, precise detail, and "white architecture". The art world of R. Meyer turns to the sculptural interpretation of spaces and volumes based on geometric proportioning. The morphotype of building-sculpture using contrasting geometries is embodied in the "Athenaeum" art centre (USA, 1975-1979) and in the Museum of Contemporary Art in Barcelona (MACBA, 1995). The museum itself is a piece of art – a kind of "architecton" in the diverse city environment (Figure 6).

Taking into account the context and paying attention to the historically formed environment of

cities became particularly relevant in the last third of the twentieth century in the works of the leaders of postmodernism: R. Venturi, A. Rossi, M. Graves and many Russian architects. The postmodern perspective of creative work was largely dictated by the change in the overall paradigm of perceiving reality in recognition of the world multipolarity and the surrounding phenomena ambiguity, which emerged in the culture of the society. Then, real characteristics of the environment, historical facts, literary plots, memories and legends began neighbouring on equal ground as various interrelated contexts of the architect's creativity in the professional field. The works by C. Portzamparc can be labelled as borderline ones and the author himself gravitates towards the art ideals and contextual communication. P. Eisenman, B. Tschumi, M. Safdie, A. Predoc demonstrate the community of methodologies based on the detection of location semantic codes, on the use of well-known metaphors and complex semantic constructs. Informed recipients are the main target audience of such dialogic line of art integration.

The concept of figurative and symbolic unity of spatial environment based on the idea of musicality of C. Portzamparc is borderline and simultaneously tends to the interpretation of the art ideals and to contextual communicativeness. The regularity of art in the unity of form and content determines the musicality of architecture. Volumetric and spatial, and artistic and symbolic solution of the City of Music in Paris (1984-1995) at all levels demonstrates subtle correlations with the environment: the curved atrium of the eastern part continues the space of the La Villette park, and the inclined aprons on the façade of the western part reflect the play of light on the water of pools (Figure 7).

In architecture, developing the idea of the context in the broad sense of interaction of the "fields" of human activities, there are a number of interesting natural and humanistic approaches which consider a work, place, nature, and man as a single indivisible "organism". The creative works of the key begetters of this trend such as P. Zumthor, S. Hall, C. Norberg-Schulz, and R. Piano are devoted to searching the synergetic ties and their spatial interpretations at the intersection of philosophical, natural, humanistic, art and artisanal-constructive aspects (Zumthor, 2006).

Focussing on nature in the diversity and unity of its manifestations determines one of the oldest motives of human creativity. In modern and contemporary architecture there are many followers of this approach: S. Calatrava, R. Piano, N. Grimshaw, F. Houben (Mecanoo), K. Kurokawa, T. Ando, K. Kuma and many others. The activity areas are also different: formation of the land architecture (landforming); generation of nature-like covers, anthropomorphic and zoomorphic form-generation, bionics; installation of temporary objects in the natural

environment; "green" architecture, environmental design and application of "sustainable" technologies.

Interpretation of the laws of nature in the convergence of the activities of an engineer, scientist and artist characterizes the creative method of S. Kalatrava and his concept of artistic and structural, and sculptural and bionic unity. Works of the master are filled with anthropomorphic and biomorphic structures, and series of sketches and dynamic models are devoted to the study of the natural plastics of the world of nature and man. Thus, the architectural image of the Eastern Station in Lisbon (1998) is determined by unique openwork "arches", the architectonics of which reveal natural patterns with a strong emotional and artistic message. The author's method was the most clearly used in the creation of the "Turning Torso" tower in Malmö (Sweden, 2005), based on anatomical sketches and the sculpture of the same name, made by the author (Figure 8).

A group of imaginative approaches, involving illusory aesthetics being in dialogue with external reality, unites J. Nouvel (Figure 11), F. Gehry, M. Fuksas, J. Herzog and P. de Meuron (Figure 3), Coop Himmelblau. Theatricality in various forms (buildings as actors or buildings as sceneries, the fragility and ephemerality of spaces, artistic freedom on the verge of provocation) are becoming the main integrative message.

Along with the actual processes of theatralisation, there is a tendency to convergence between contemporary architecture and the object-environmental design, fashion. At that, such methods as experimental form-generation, interactive presentation, various PR-technologies are often applied. The approaches, carrying on an active socially oriented dialogue with the use of architectural-artistic means, have become especially popular: architects turn to methods of game expressiveness for easier contact with the consumer. In current practice, design and advertising methods are used by most successful architects, but only for some of the architects these concepts have the meaning of important bases for their personal artistic systems: W. Alsop (Figure 14), S. Boenisch, P. Cook, B. Ingels (BIG), "Diener & Diener Architekten" Bureau, MVRDV, FAT ("Fashion. Architecture. Taste"). The line of the socially oriented design in contemporary architecture can be seen as a "light" component of a larger social strategy, which is based on research and urban planning.

The priority of intelligent design, study of social and economic systems and their critical analysis have become the current trends in the works of R. Koolhaas, T. Mayne, B. Ingels, MVRDV and a wide range of their followers. The rapid development of this trend (based on interdisciplinary links, introduction of international educational projects and advertising) largely results from the international activities of R. Koolhaas. The master's approach can be called the concept of intelligent synthesis and a continuous scenario of the spatial organization of

an architectural object. Thus, the Kunsthal in Rotterdam (1987-1992) major for the master became part of the mega landscape of the Museum Park, through which a pedestrian street passes (Figure 15). With that, the artistic component is largely debatable, but we should not forget that the proposed moves, which might be shocking at times, are now forming a new vision in the aesthetics of urban space, combining the solution of pragmatic issues with architectural-artistic designing of the environment.

The concept of social experiment and architectural design is embodied by B. Ingels (BIG), using the methods of conceptual and design integration. The innovative integral conglomerate of blocks of flats with gardens and an open parking is put in place in Mountain Dwellings in new suburb of Ørestad in Copenhagen (2005-2008), whose aesthetics are based on the contrast of giant prints on the facade and a verdured cascade of terraces. 8 House (2009) built in the same suburb of Ørestad used the same principle of an open spatial communication, through which the entrances to apartments are organized and the whole range of impressions is perceived: air element, reflections flickering, verdant greenery of courtyards and front gardens, speaking elements of everyday life (Figure 16).

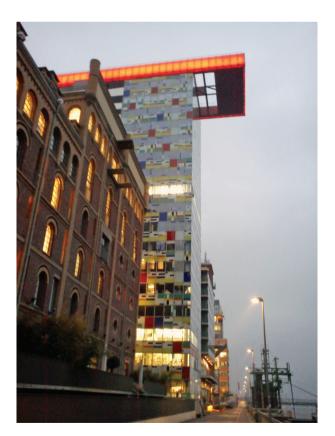


Figure 14. The office Building "Colorium" in the Düsseldorf media harbour (Germany), architect W. Alsop (2002).

Source: Photo by Dutsev (2012).

The art integration most fully manifests itself in the architecture of expression, energy flows and freedom of form-generation, which is today a complex synthesis of heuristic design, digital form-generation and imaginative expression (Schumacher, 2011). The search for a free form has become an area of self-expression Z. Hadid, F. Gehry (Figure 17), D. Libeskind, O. Decq, M. Fuksas, H. Rashid, Coop Himmelblau Bureau, Nox, F. Romero, Asimptote, etc. It is paradoxical that the "sensual" trend received an additional impetus for development in its basis due to introduction of computer simulation methods in the works of Gehry, Schumacher, Nowak, and Lynn.

The art integration accompanies poly-integration tendencies that form the current trends in contemporary architecture: social activation and adaptation, interactivity



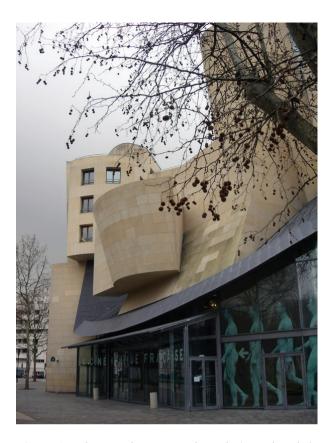
**Figure 15.** The Art Hall in Rotterdam (Netherlands), architect R. Koolhaas (1987-1992).

Source: Photo by Dutsev (2012).



**Figure 16.** The office and residential complex "8 House" in Copenhagen, architect B. Ingels (2009).

Source: Photo by Dutsev (2012).



**Figure 17.** The American Center in Paris (now the Cinémathèque Française), architect F. Gehry (1994).

Source: Photo by Dutsev (2007).

and scenarioness, mediativity and virtuality, "game" and provocativity, artistic symbolism and spectacularity and the illusiveness and theatricality, environmental friendliness and sustainable architecture, conceptuality and interdisciplinarity. The identified trends have a specific orientation and border meta-potential penetrating the spatial-temporal, artistic and individual-personal "fields" at all levels of communication: the author – (the work – environment) – the recipient.

# The model and principles of the art integration in architecture

It is important to note that orchestral pieces with a special expressiveness and integral properties of the impact on the addressee are born in the process of the art integration in architecture. The factors of art are a kind of "surplus element", activators for the architecture of a new holistic kind, which is the result of architectural and art integration. Synthetic architectural works, intersystem processes of architectural activity, holistic concepts and methods of artistic synthesis in the works of modern architects may serve as integrative cues. The integrative force

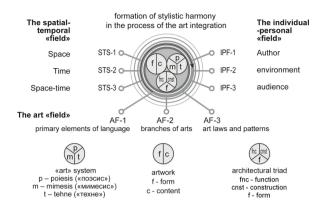
of architecture is able to build links and "pull together" dissimilar and even opposite components into a single system. The concept of architectural and art integration unites dissimilar factors, phenomena, properties, regardless of their nature, into a single integrated system, being the key to the new in architectural art. The creative value of the concept of the art integration consists in finding the principles of achieving integrity while preserving the specificity of each "field", as well as the principles of their interaction at the level of the metasystem.

The art integration determines the interrelated phenomenon of the whole and the artistic quality of an architectural artwork. The model of the spatial-temporal "field" of the art integration is a structured "field" of the contexts of architectural creative work in the trine structure of space, time, and space-time. The model of the artistic "field" of the art integration into contemporary architecture sets a matrix defining the language codes, on the one hand, and, on the other hand, forms of art and artistic-aesthetic activities, which were established in the course of the evolution. The model of the individual-personal integration shows the dynamic "field" of best practices, architectural trends and contexts of the architect's work in the system of the "attraction" of relevant "poles" of contemporary architectural activities. The generalising model of the art poly-integration (Figures 18-20) is based on the interaction of the "field" models through the integration zones of interaction (reference to the author's work).

The theoretical model draws upon the concept of unity of fields at the different levels of the art integration: object, cluster, system and universal levels. The characteristic instability of the integration centres and forces of their attraction causes a periodic change of the system main centre. The change is subject to the initial parameters such as: the author's preferences, current trends, spatial-temporal, social or cultural paradigms. The creative meaning of the concept lies in finding the principles and methods for achieving integrity while preserving the specificity of each "field", as well as the principles of the interaction between the fields at the meta-system level (reference to the author's work).

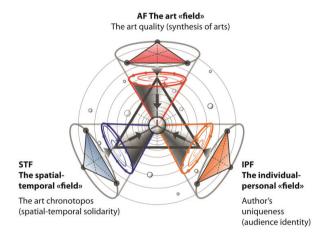
The system of the "fields" of the art integration is regulated by universal architectural-artistic principles that unite the entire integration process. The backbone conceptual principle of emergence-birth determines the moment of simultaneous appearance of the design concept, insight, and creative impulse.

From the standpoint of artwork principles, an architectural object is to be regarded as an architectural achievement. According to the principles of artistic autonomy and interactive dynamics, an artwork at different formation stages possesses a certain amount of internal self-sufficiency and self-development. It is used within the organisation of the scenario design pro-



**Figure 18.** The system of "fields" of art integration in contemporary architecture.

Source: Dutsev (2014).



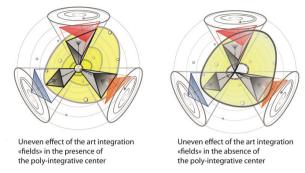
**Figure 19.** The universal model of art integration in contemporary architecture.

Source: Dutsev (2014).

cess, algorithmic designing, environmental adaptation as a gene of adaptive viability.

The universal principle of the artistic identity of the place, author and work reflects preservation of the basic qualities in the system of each "field": the spirit of place and the sense of time, the uniqueness of the work and its embeddedness in the cultural context, the identity of the master or the recipient. The principle of the dynamic artistic communication – a multidimensional dialogue – reflects an ongoing dialogue with the interchange of roles in accordance with the system "the author – (the work – the environment) – the recipient".

The principle of free artistic interpretation and transformation is aimed at preserving the artistic quality in architecture and is based on the existence of certain "responses" in the system of various "fields". The inter-



**Figure 20.** Graphical charts of the uneven state of the system of art integration.

Source: Dutsev (2014).

penetration of heterogeneous principles allows seeing the images of one "field" in the system of another; at that, those images acquire a new artistic quality.

The "field" principle of interacting and the principles of the united integration "field" describe the mechanism of the architectural-and-art integration. The system of the "fields" is characterised by basic generic principles: multipolarity, the instability of the centres of "attraction", the pulsation of characteristics in space and time, the dynamism of processes. The principle of artistic relatedness of the integration "fields" preconditions their interpenetration through presence of latent qualities and properties of one "field" in the system of another.

The unity of the "fields" results in a complete architectural work, which represents the "field" system of interaction in time and space as a generic basis for viability of this work. Based on summarising the proposed principles, it can be said, that the concept of the art integration asserts the architect's work and achievements in the highest sense of belonging to the art.

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