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# ABSTRACT

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# Dissertation work

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"Primary Creative and Conceptual Approaches in the System of Interior Design in the XX and XXI century"

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#### **INTRODUCTION**

Interior design is a complex system of concepts and activities with a significant presence in contemporary culture. The designer's profession and creativity require a huge arsenal of skills and serious theoretical training, with the help of which are achieved interior spaces with their own individuality and characteristic sound. The designer creates visual codes through which he conveys messages and instills emotions in those present in the interior. Just as a painting can evoke feelings of joy, melancholy, sadness or calmness, a skillfully created interior has even greater power, precisely because the person is physically present in it, feeling the space with all their senses. When we step into the interior, we first evaluate it visually, but immediately afterwards, without thinking, we perceive the textures through touch, the acoustics through hearing, and even the smells in the space influence our feelings about it. The designer is the one who can and should convey the message, the suggestion, the feeling in the interior. He must compose all the elements so that they sound like a complete and finished piece of music, not a random cacophony of varied sounds. Of course, the latter is also permissible, but only if the designer has previously focused on this goal.

The profession of an interior designer is one of those that requires constant updating of skills and knowledge, continuous research and, last but not least, continuous development of creative potential. The designer must master both the technical skills related to working with space and materials, preparing the project and its visual presentation, as well as the starting points on which the creative making of a complete, finalized and harmonious composition in the interior is based. The designer must be able to apply the environmental approach, which essentially considers the interior as part of its surroundings. No interior space exists on its own, it is defined by its structure and structural elements and is inevitably linked to the context of the environment in which it is located. Whether it will be the city, the countryside or the seashore, whether it will be the street, the building or the garden, the interior is a space in continuous visual and emotional communication with the environment. It is the designer's skill that places the interior adequately in context and creates a situation of overall perception and feeling of the environment. Deciding whether the interior will fit harmoniously into the surrounding space or contrast with it is one of the tools the designer uses to create different impressions. In order for the interior to be

convincing in its sound, the designer must have a good knowledge of composition principles, design elements, basic styles, trends and design approaches.

The principles and elements of design are a universal set of rules and abstract concepts developed by artists over the centuries through the creation of the form for realizing a creative composition. A good knowledge of the principles is related to creating successful projects. The elements of design are basic concepts, but their effective use has a leading role in the construction of the interior and composition. The principles and elements of design are inextricably linked to the concept of style formation. Every known style in interior design can be defined by its characteristic design elements and approaches in applying the design principles. However, style can be subordinated to many other concepts and defined on the basis of a number of characteristics such as historical period, geographical features and socio-cultural features.

The subject of styles in design is perhaps one of the most researched, theorized and exploited in the specialist literature for both professionals and amateurs. Consequently, we can distinguish hundreds of styles defined on different principles. For example, one of the popular in recent years "Scandinavian style" at first glance we can attribute to a specific geographical location, but, as we will see, its origin is part of specific historical events, and its subsequent development comes from this foundation. In its modern form, a number of corporate implications have been added to it. When we talk about "Greek style" for example, we do not have such a developed multi-layered picture, it is related to the specific country consisting of many islands, and the imposition of a visual language based on the combination of blue and white colors and decorative elements that we associate with the expanse of the sea. The specific visual cues that are part of Hellenic culture and would add a deep historical context to the space are rarely present in the interiors by which this style is massively defined.

Other styles, such as Rococo, are also determined by their geographical location - the style developed in France, but this is not the main factor in this case, but the fact that the style is locked in a certain time frame of a specific historical period. No matter how much we explore and define the boundaries of specific styles, the fact is that in contemporary design they are blurred. As Krasimir Delchev defines the historical period of the intercentury, the transition years at the end of the 20th and the beginning of the 21st century, this is a situation of "delta contemporary". According to him, the different strands of art already exist in a "synchronous

coexistence", like in the delta of a river, without clear boundaries between the separate arms, before it flows into the ocean.

This definition can be valid for different artistic movements, so it also illustrates the blurring of boundaries between individual arts – painting, sculpture, design, architecture, land art, installation, photography, theater, scenography, digital arts. It is this blurring of boundaries and fusion of styles that is also relevant to the situation we observe in contemporary interior design in terms of both style and the inflow of trends into one another and the assimilation of artistic toolkit from all the arts. The present dissertation offers a different reading of styling by examining it through the discourse of the design approach. Although fundamental styles, currents and trends in 20th century design and 21st century contemporary design are explored, the focus is not on style, but on the main design approaches and their application in the interior.

The design approach is a creative, conceptual and practical tool leading in the creation of the interior space. It is related to the toolkit for building a visual and emotional concept for the specific project. The visual language of the design elements, the way in which the basic principles of the design are applied, the stylistic features and the situation of the project in its surrounding environment are the defining points of reference of the concept of design approach.

The main design approaches originate and develop in certain historical frameworks, often assimilating in their structure a number of concepts and styles characteristic of the specific period. As we have already noted, in modern design styles are constantly blurring their boundaries, but they belong to a certain approach and this affects their understanding and application. The historical and socio-cultural events that influenced the development of the approaches are of great importance both for their understanding and for determining the time frame of development and assimilation into the modern forms of the approach.

The main approaches defined in this thesis are structural approach, decorative approach and sustainable approach. The approaches are studied as a complete system through the discourse of the historical period in which they originated and developed, through the practices, concepts and visual codes of the design language characteristic of each approach, through the styles when they are clearly distinguishable within a certain approach. The time frame of the study covers the period from the beginning of the 20th century to the present day. This is the period in which the main approaches can be marked and defined, a period of rapid development of design as a complete system and of society as a whole. Throughout the 20th century, design changes and develops, reaches certain peaks, but there are also declines, various currents and trends branch off to reach its contemporary form. Every design created in the present contains within it a part of the development of the design system during the past century. But also, every design created now communicates to a greater or lesser extent with the future and is defined by constructions of what it will be.

The present dissertation deals with specific design terminology, which must be correctly defined. Among the main issues is the designation of one of the leading design approaches explored in the text, namely the structural approach. Why structural, and not structuralist, is the leading question in this case. As is well known, structuralism is a research method and a scientific approach that examines systems through the meaning and interaction of the various elements that make up their structure. As a research method that arose and developed in the 20th century, structuralism is applicable to a wide range of humanities and applied sciences, and as an intellectual movement, it stands at the philosophical basis of the development of characteristic movements in art and especially in architecture and urban planning in the second half of the past century. The structuralist scientific approach is a primary research tool used in the monograph "Conceptual and Sustainable Design", which explores 20th-21st century design through avantgarde and conceptual practices, art and design groups and movements, and socio-cultural phenomena and patterns influencing and underlying their formation and development.

This dissertation explores design approaches both through their theoretical basis and through the historical, social and cultural processes that influence them, as well as the ways in which they are applied to create concrete suggestions through the use of visual codes, i.e. structuralism is among the main research methods and in the present scientific work. Namely, to distinguish terminologically from the structuralist scientific approach, one of the main design approaches is labeled "structural" rather than "structuralist". Structuralism in architecture should also be noted as a unifying theoretical concept and design method used by Metabolist and Brutalist architects. Architecture and interior design are inextricably linked fields, which also necessitates the mentioned terminological distinction. In the world's specialized literature and design practice, the concept of design approach is present as a basic concept and is related precisely to the idea, the motive of the way in which the construction of the leading concept will be approached. The local situation in Bulgaria is that, both in theoretical studies and in practice, this concept is rarely dealt with, it has not been researched, analyzed, categorized, terminologically derived and is almost not present in the professional language. On the other hand, even in the Western European and American literature, it is difficult to find a thorough study and a clear definition of the different approaches. The focus of the present dissertation is precisely on the study of this problem. This innovative perspective on interior design, on the one hand, seeks to enrich the specialized literature on the subject, and on the other hand, to present the approach as a basic tool in the practice of the modern interior designer.

### **Object and subject of the study**

The object of the present study are the main approaches in the system of modern interior design. The subject of the research is the genesis, development, visual characteristics and theoretical concepts of the main approaches in the system of interior design, their evolution during the historical period from the beginning of the twentieth century to the present day.

#### Goals and tasks

to study and classify the main design approaches in the system of modern interior design;

- each approach to be defined and analysed in its genesis, development and current state;

- to explore the basic practices, concepts and visual language of each approach;

- the approaches should be examined in the context of the historical period in which they originated and developed;

- to structure and classify the main tools of each approach;

- to create an up-to-date criteria apparatus and categorization concerning the specifics of the concrete approaches according to their signs and aspects;

 to create a terminological dictionary of the main definitions related to design approaches in modern interiors. The vocabulary to position design adequately in the situation of modern culture;

- the time frame of the research should cover the period from the beginning of the 20th century to the present day.

### **Research methods**

The dissertation synthesizes analytical, historical, and evaluative methods through which it interprets, interprets, summarizes, evaluates, concretizes, and classifies major research theses.

The main research method used is systematic analysis. Each approach is considered as a system of elements, the influences and connections between them are explored. The studied elements are, on the one hand, directly analyzed through the visual image and the functional analysis of the specific objects referring to the defined approach. The overall systems are also studied in relation to the socio-cultural features of the specific historical period and the social processes taking place during it, influencing the formation of the visual sign in the design, the understanding of the leading narrative in the design (e.g. functional, conceptual, sustainable) and the construction of the fundamentals of interior design today.

Historical-genetic method. The history of formation and development of each approach, in a specific period of time, is studied. Historical facts and events have been researched, and their significance for the formation and development of each approach has been interpreted.

Comparative analysis. Through this method, the constituent elements of each approach were examined and analysed by visual, compositional, functional and conceptual characteristics. The methodology of comparative analysis has also been applied to the study of theoretical constructions in specialized and scientific literature.

#### **Dissertation Contributions**

• For the first time in the Bulgarian academic and university community, a scientific study focused on the main approaches in the system of modern interior design is carried out.

• The present dissertation for the first time explores the main design approaches, analyses them in their genesis, development and current state.

• The dissertation classifies and defines the leading concepts and characteristic visual language of each approach, structures their main toolkit, creates an applicable criteria apparatus.

• The research makes a significant contribution to the theory and practice of contemporary interior design. The dissertation work enriches the theory of design by introducing into the scientific terminology the concept of design approach, in its entirety, at the same time as a conceptual foundation and a practical tool applicable in the practice of interior designers.

• The scientific work is of an author's nature with a specific point of view of a designer practitioner and theoretician, researcher of design.

• The research methodology is appropriate and applicable to the goals and tasks of the dissertation work.

• The dissertation concerns interdisciplinary issues and has an interdisciplinary character, it explores the connections and interactions of interior design with modern materials science, ecology, biosystems, as well as other areas of scientific knowledge.

• The dissertation uses as a source of information a wide range of scientific literature not published in Bulgaria. The work also interprets information that is significant in terms of volume and little touched on in the scientific literature, in the field of interior design.

### FIRST CHAPTER

## A structural design approach

The structural design approach was born at the beginning of the twentieth century, developed and prevailed in the first half of the century, continuing to be used in modern design. The structural approach is one of the main design methods, conceptually based on the principles of functionalism. This approach can be most easily defined by the negation – the exclusion and absence of any decorative elements in the interior, of any ornament in the design, the purification of the form to a strict geometry are the main signs of the structural approach. As its name suggests – the structure, the construction is important here, and inevitably the functionality is at the expense of the decorative. We use this approach as a guide in designing when we want to create interiors with a minimalistic statement and a functionalist sound, with clearly distinguishable materials. The beauty of the design here is in the selection of materials, the skillful combination of textures with measured contrast, the use of strictly geometric shapes and figures in space, in the way the light sculpts them. The structural design approach was formed as a visual statement at the beginning of the last century, developed rapidly and acquired an almost dogmatic character by the middle of the century.

The structural approach is inevitably linked to abstraction, we find its roots in the birth of modernism, its historical body is built from the avant-garde ideas in design, art and architecture from the beginning of the last century. As is known, one of the main aspirations of the art of this period was the rejection of decorativeness and the use of ornament. The speed with which the progressive artists of their time rushed into this fundamental modernist idea of the "new art" is comparable to the youthful rebellion of teenagers freeing themselves from the influence of their parents. Centuries of imitative, figurative and decorative art and their corresponding interiors must be denied to make way for the 'new'. The avant-gardes of the turn of the century opposed and fought against academicism in art, as well as established classical models such as the "beautiful" and the "aesthetic" defining "good taste." These processes stimulate the emergence and development of new, radical design theories and approaches that seek to build a modernist design concept based on a relationship with industrial production and adopted industry as a means of expression. It is the

entry of industrial production into creative reality that is among the main catalysts of these violent changes.

Although the structural approach is invariably associated with industrial aesthetics and the penetration of machine production into all spheres of social life, it is by no means only that.

The ideas of Adolf Loos, published in the emblematic essay of his time, "Ornament and Crime", were adopted to a greater or lesser extent by his contemporaries, and while some of them applied them sparingly, others, such as Le Corbusier for example, apparently reached extremes. This extreme form of structural approach, which brings the interior to an impersonal, unspiritual, ultra-pure, smooth and soulless stage, limiting the space between white walls and industrial surfaces, reflecting in itself the absence of any individuality, although theoretically laid down by Loos, paradoxically does not we find in the interiors designed by him. Unlike Mies van der Rohe, Loos did not use tubular furniture in any of his interiors, and by comparing the interiors of Villa Müller, Villa Savoy and Villa Tugenthad, which were created at the same time, we find that the overall concept laid down in the theoretical essay of Loos, was in fact realized in interior design much more by Mies van der Rohe than by Loos, and perhaps to the greatest extent by Le Corbusier.

The Schroeder House, for example, is one of the early examples of a structural approach. In its interior, Gerrit Rietveld did not use expensive materials like Mies van der Rohe, for example, but managed to create a distinctive and ultimately abstract space, much more remarkable and individualistic than the experimental Bauhaus house built around the same time. At Haus am Horn, the structural approach is implemented in perhaps its purest and most sterile form. Of course, it is undeniable that the house was revolutionary for its time with the completely new concepts that it materialized and exposed publicly to the entire community. Naturally, it was criticized by traditionalists and admired by artists such as Mies van der Rohe and Le Corbusier, who, as we shall see, developed the approach, each in a strictly individual direction. The sharp contrast with traditional concepts is visible when we compare the experimental building with its neighbouring houses in the prestigious neighbourhood where it is located. In its quest for functionality, the experimental Bauhaus house offers a number of innovative ideas and solutions, the most notable of which is probably the kitchen. It was designed by Benita Koch-Otte and is a harbinger of Frankfurt cuisine.

Examining the development of design in the 1920s, a turning point stands out, thanks to which the structural approach came out of its original rigid aesthetics and changed the visual code

so much that, on the one hand, it corresponded to the new, modern way of life, and on the other hand - sets the direction of design development. This direction, which leads to a completely different vision of the interior of the 20th century, which has never existed before, determines the development of functionalism and its transformation into the International Style. Marcel Breuer managed to go beyond the circular saw, glue and nails, he was inspired by the light but strong construction of his bicycle and decided to experiment with tubular steel, exploring its possibilities in furniture production. Thanks to this idea of his, the first chair made of tubular steel construction "Model B3" appeared, later known as the "Vasily" chair. Without this milestone in the history of design, it is likely that the interiors of the modernists would never have appeared in this highly innovative way for their time, visually representing the new modernist paradigm in which they believed and preached. It is unclear how much longer the furniture and interiors would look as ridiculous as Breuer's stiff chairs at Haus am Horn. The new industrial production methods now have their own distinct language and it is called steel pipe construction.

Apart from Breuer, two iconic authors developed their own series of furniture based on a structural approach with the use of tubular construction and, as we shall see, they developed the approach in two quite different directions, although united by design theorists and historians in the so-called international style. These are Ludwig Mies van der Rohe and Le Corbusier.

It is important to note that Mies van der Rohe worked closely with Lily Reich, who was an active and significant figure for her time in the development of early modernism, her role in the modern movement as well as the wide range of her creative activities are explored, by design historians, only in the last thirty years, and the activity is almost unknown in Bulgaria as well.

Although Lily Reich manages to transcend most of the stereotypes that define women's roles and career opportunities in art, design and architecture, she is far from alone. Charlotte Perrian also leaves a clear mark in these areas, and all her work is based on the principles of the structural approach. She worked in the studio of Le Corbusier, and together with him and Pierre Genre designed the classics and still produced tubular furniture LC2, B301 and the iconic lounge chair B306.

Le Corbusier has long been a leading figure at CIAM, where he imposes his views on the development of architecture and cities. His influence on generations of architects, especially in the countries of the former socialist bloc and Latin America, was enormous. He himself designed many buildings and urban plans in Europe and Asia. This is also one of the reasons why the structural

approach, functionalism and aesthetics of Modernism became known as the International Style. The period of the 1950s is characterized by the most widespread and coherent aesthetics in the history of design and architecture in general. As Leslie Jackson notes, during this period "whether working in Brazil, Finland or California, designers followed a remarkably convergent path" (Jackson, 1998, p. 15). Of course, these processes are complex and woven into the historical structure of the social changes that occurred in society during the period. The factors influencing them are many, but one of the main ones is the Second World War, which forces many artists and scientists to leave their native Europe and find their new home in the United States. Culturally, the US is one of the great winners of the war. After its end, they have economic power, fast-growing enterprises, huge markets to offer their products, as well as the creative potential of many innovative artists. Here we can at least mention the creation of the New Bauhaus in Chicago, as well as the teaching and design work of many of the Bauhaus - Walter Gropius, Marcel Breuer, László Moholy-Nad, Josef and Anni Albers, and many others, but most of all Mies van der Rohe.

In one of the first and most notable houses he designed in the United States, Mies was able to fully bring out his long-standing creative visions and embody them in a real space. In the Farnsworth House (Farnsworth House), he completely cleared the space of partition walls, created an interior without a single separate room, but only smoothly flowing and conceptually separated areas. There is nothing superfluous in this interior, which is van der Rohe's motto when creating it. This concept embodies Mies' new ideas, responding to the development of the aesthetics of the structural approach, in the new situation of advanced technology, on a new continent. It was this project and Philip Johnson's Glass House, inspired by and modelled after the Farnsworth House, that embodied the entire further concept of minimalism in design and architecture.

In the period defined as mid-century (mid-century modern), Florence Knoll, more than anyone else, managed to integrate the theoretical framework and creative power of European artists with the possibilities of the rapidly developing American economy to integrate the values of modernism and the principles of the structural approach in interior design.

The post-war period in the USA was dynamic and rapidly developing economically, which affected the entire social fabric and invariably - art and design. For the first time, America led the way in the creation of a cultural product, taking on the traditional pioneering role of war-torn and divided Europe. The rapidly emerging middle class of the 1950s has new demands, new ideas about the way it furnishes its home, the way public spaces look, and desires for the look and comfort of

the workplace. It is at this historical moment that Florence Knoll's rational and functional furniture designed by the family company, designed with the entire philosophical basis of modernism woven into its structure, fills this niche. It is even possible to argue that her interiors succeed as much as possible in physically making sense of and approaching the ideals, aspirations and concepts underlying the theoretical foundation of the modernists of the turn of the century, without being influenced by any political doctrine. In the interiors created by Florence, one can see the beauty of the structural approach in its purest form. Streamlined space responding to the activities carried out in it, simple geometric shapes, use of primary colours as an accent and to create strong focal points, alternation and repetition of standardized industrial elements, geometric pattern, abstract painterly canvases, great attention to textiles, skilful matching of textures and materials - the elegant and preferred by Mies van der Rohe marble, chrome steel, glass and leather, but also the new ones explored with Saarinen – plastic, fiberglass. Florence Knoll's visual language is that of a structural approach, uniting all the listed categories, elements and principles, it is so recognizable that it became popular as the Knoll Look. Last but not least, she negotiated with her mentors and obtained the rights to produce Breuer's most iconic chairs of the modernist period, the Basil and Cheska chairs, as well as Mies van der Rohe's Barcelona chair.

Florence Knoll inspires, provokes and stimulates the creation of new designs, especially for Knoll. Thus appeared Eero Saarinen's Womb Chair in 1948, Harry Bertoia's Diamond Chair in 1952, and the Pedestal Collection, which includes the Tulip chairs and table. again to Saarinen in 1957. Thus the company of Florence, one of the most prominent representatives of mid-century modernism and followers of the structural approach, became one of the harbingers of the end of the era in which the International Style had become an absolute dogma . These new, author's furniture, abstract stylizations of natural forms, foreshadow what will happen in the coming decade - a design revolution, rejecting the subjugation of functionalism and reviving the decorative approach in design through the new paradigms that define social processes from the 1960s to the present days.

### Conclusions to the first chapter

As we have seen in this chapter, which examines the emergence and development of the structural approach, it belongs to the era of modernism, acquiring a dogmatic character in the middle of the past twentieth century. Thanks to him, the design developed in its modern form and

through the negation of the past decorative styles and formal statement, it built the aesthetics of the new century, subordinated to the industrial visual language and accompanying all social changes. Although in the subsequent postmodern era design carried out its iconoclastic revolutions, responding to the new creative searches determined by the characteristic historical events after the 1960s, the structural approach never ceases to be relevant. It is also one of the main and frequently used approaches in our modern design, so relevant after its hundred years of presence on the design scene that it has acquired a classic character.

In modern design, the structural approach is characteristic of styles that are defined as Scandinavian, minimalism, industrial, contemporary replicas of mid-century modern, international style and a number of others. Very often it is difficult to determine exactly which style a particular interior belongs to, precisely because they all come from the same structural group and the same approach is used in their design. In the modern interior designed by a structural approach, we can use and mix visual codes that belong to different styles, but in order for the interior to have a harmonious sound and a balanced look, we should not go beyond the limits of the structural approach.

In the first chapter, the leading criteria to which the designed interior must meet when using a structural design approach are presented.

Second Chapter

## **Decorative design approach**

Unlike the structural design approach, which developed in the first half of the 20th century and has only a hundred years of history, the decorative has always been the main tool of artists throughout human civilization. We find it millennia back in Egypt, in the Athenian temples and in ancient Rome. Until the twentieth century, through all eras and changing styles, the approach to art, interiors and architecture was formal and decorative. Even the new rebel art with which the Western world welcomed the twentieth century also took a decorative approach. With its abstract floral motifs, whip-like curves and lavish ornamentation, Art Nouveau broke many stereotypes of its time, but the approach remained entirely decorative. It could be argued, however, that the stricter geometric versions of the "Youth" style, such as Secession, represented the last variant of a decorative style before the rise of the structural approach. Of course, here we cannot fail to mention art deco, which appeared in the 1930s as a reactionary style to functionalism. As its name suggests, the leading here is exactly the concept of decorativeness. He contrasts his characteristic decorative visual language, handling expensive materials and jewellery precision, with mass industrial production and cheap, simple and easy-to-use materials. It was the elitist nature of Art Deco that curtailed the use of the style and it became increasingly unpopular after WWII. Although there is a revival today, the boom in its development remains the period between the two world wars.

After the middle of the century, in the early 1960s, the fatigue of functionalism and the structural approach was visible. New generations are emerging with completely different understandings of the world from the previous ones. This is the decade of many social upheavals, shifting layers of society and revolutionary changes not only in design. The art world was stormed by pop art and conceptualism, the dictates of the CIAM were broken by the ideas of Archigram, the anti-design and radical design movements appeared in design. These movements reached their peak in the mid-1970s, they "paved the way for the new leaders of pop design - Alchemy and Memphis" (Serginov 2015, p. 234). The era is now postmodernism, and the decorative approach in design has been revived. However, we should not be mistaken that this new decorative approach comes particularly close to the decorative styles that prevailed before the 20th century. Thus, according to Kossuth, all art after Duchamp and his first ready-made works is conceptual in its essence and a criterion for "the value of artists is how much they question the nature of art", the new decorative language calls into question precisely the means of expression of modernism and functionalism and, accordingly, of the structural approach.

A main factor for the revival of the decorative approach, apart from social changes and the collision of design with conceptual art, is the emergence and mass entry into the production of new materials in the second half of the last century. Fiberglass, polyurethane foam and, above all, plastic - this almost alchemical material, as Roland Barthes refers to it, provide artists with completely new opportunities for a non-standard approach to form, surface, color. To all design elements and the interior as a whole.

Just as Mies van der Rohe's structural approach and his motto of "nothing superfluous" lead to the development of minimalism in design, which adapted to some conceptual art forms in the 1960s, and thanks to this minimalism established itself as a leading style in the interior to this day, on the other hand, the clash of radical approaches and new materials gave rise to the concept of maximalism and a corresponding revival of the decorative approach. This can be clearly illustrated with Werner Panton's interiors, which have more than anything - bright colors, opposition of geometric shapes, optical illusions, deliberate loud contrasts, an abundance of non-rational solutions that have nothing to do with functionalism, and at the same time emotional and functional.

Panton's unconventional approach to the construction of interior space became popular and widely available to the public thanks to his total spatial installations Visiona, realized at the international furniture exhibition in Cologne. For the four years that the Vision project has been realized, the design has been carried out by: Verner Panton - Vision 0 and Vision 2, Vision 3 by Olivier Morgue - the French designer whose furniture features in Stanley Kubrick's sets, and Vision 1 by Joe Colombo – the iconic Italian of the 1960s, laying the foundations of the concept of transformable furniture and interiors in small spaces. What unites the three authors is precisely innovation, the way they manage to use "new materials" and combine simple geometric shapes with free lines inspired by the curves of the human body, achieving suggestions of fluidity, infinity and softness - a total counterpoint to strict functionalism with its verticals, horizontals and right angles characteristic of the structural approach. To this we can add the careful, albeit at times seemingly unbridled, use of color, as well as the design of contemporary spaces – interiors facing the future.All four Vision projects realized in the period 1968-1971 are emblematic and set trends that unfolded years later in various areas related to interior design.

- For all these processes and the influence they have on the development of design, see: Kaloyanova 2016, pp. 60-80
- 2. See Serginov 2015 and Kaloyanova 2016
- 3. Kosuth, Joseph., Art After Philosophy., 1969., In: Studio International. : Available at: http://www.ubu.com/papers/kosuth\_philosophy.html
- 4. Barth, 2004, pp. 262-264, "The Plastic"

Design scholars rarely pay attention to Vision 0, the first such project ever, even though it was essential and seminal in interior design's adoption of the expressive language of Pop Art. In this project, probably for the first time, there is such a vivid presence of pop art ornament in the interior - multiplied eyes, lips, hands, feet - photographed and printed on an ultra-large scale on curtains, carpets, wallpaper, etc. With this approach, Pantone appropriates the characteristic means of expression of pop art to design, creating a completely new reading of the theme of pattern and ornament in the interior. Although the decorative language here is naturalistic, it is already completely different from the imitation and copying of natural forms characteristic of styles up to the 20th century. The curtains with a multiplied palm or the round carpets with one huge eye in the middle create a photographic decorative pattern, both human and a symbol removed from its human essence, multiplied as an object for mass use. Yes, the decorative approach has been revived, but it is now completely semantically and visually different from what it was until the beginning of the 20th century. As Professor Laura Dimitrova notes "... the traditional view of ornament (in which orderliness, regularity, integrity and unity) is replaced by an ironic attitude towards "eternal values" and a sense of humor, which allow "play" in the interpretation of the traditional" (Dimitrova, 2018, p.67).

The return of the decorative language in design starting in the second half of the 1960s is indisputable, but for its transformation through the prism of the new reading of reality, namely - postmodernism, the movements for radical design and anti-design have the most essential importance and the most specifically - the groups "Alchemy" and "Memphis". The "Bau.Haus 1" and "Bau.Haus 2" collections presented in 1979 and 1980 at the Milan Triennale are a kind of iconoclastic act against the perceptions of "good design" imposed by the Bauhaus philosophy, a symbolic destruction of the visual code of functionalism. The means of expression of anti-design – eclecticism, kitsch, irony, disruption of integrity, change of scale, saturated color – reach their peak in these ironic collections. For example, in the "Candice" series, Mendini decorated the objects with abstract forms and patterns borrowed from Kandinsky's paintings, ironically questioning the dogma of functionalism as the only possible legacy of the revolutionary ideas inherent in the Bauhaus concept. One of Mendini's greatest innovations, which generally changed the ways of thinking and making design, was paradoxically rooted in the concept that design no longer needed to be innovative, that it was possible to create design through the use of purely decorative interventions in already existing objects, through which value can be added to the

objects, which is not a commercial trick, but an emotional and conceptual communication. Through the decorative manipulation of design objects emblematic of the modernist era, Mendini created the re-design method and thus revived the decorative language in design, loading it with concrete symbolism, denying the dogma of functionalism and creating new rules, stepping on the foundation "without rules". Marcel Breuer's re-designs of the Vassili chairs and Tonet #14 become symbols of the new era, just as their originals are iconic images of the time in which they were created, and the re-design method that left such an important mark in the past, is one of the most essential design tools used in the modern sustainable approach.

At the very beginning of the 80s, Ettore Sottsass separated from Alchemy, creating a new group of united international avant-garde designers - Memphis. These new rebels, although in their initial conception they did not seek any utilitarian utility of designed objects and interiors, had a huge influence on the aesthetics of the entire decade and far beyond interior design. Of course, their work stands on the solid foundation of the fundamental cultural layer prepared in the 60s and 70s by all the groups, designers and artists working in the field of radical design and anti-design, conceptual arts and conceptual design. The objects, furniture, interiors designed by Memphis in the 80s are emblematic of the period and despite their apparent irrationality, and perhaps precisely because of it, they are sought after, ordered and used, most likely more than any other design rooted in the radical trends of the twentieth century. The fact that in our modern design, namely the beginning of the second decade of the 21st century, the aesthetics, expressive language and visual codes of Memphis are extremely popular and used by designers as a source of inspiration and the object of multiple interpretations in the interior is not insignificant. . In addition to everything else, the group continues the trend set by the "Alchemy" studio for the interpretation of Wassily Kandinsky's abstract paintings painted at the beginning of the century. As you can see, there is a lot of everything in Memphis design, and the specific design language covers many areas of design and pop culture of the 1980s. With its ironic, irrational, conceptually chaotic and based on contradiction, overexposure and the entertainment activity the designers of the Memphis group carried out the last possible iconoclastic revolution that digested and assimilated most of the styles and approaches of the past century, opening the doors to unlimited possibilities and means of expression for designers for the next thirty years - to the present day.

#### **Decorative design categories**

As we have seen, the revival of the decorative approach from the 1960s is due, on the one hand, to the desire to break the shell of the structural approach and get out of the dictates of functionalism. On the other hand, the changing eras and way of life - the introduction of new materials and technologies, also have a great impact on the propulsion of these processes. The modern reading of the decorative approach can seem complex and chaotic precisely because of the postulate of unlimited possibilities. Starting from the position that in design everything is possible and all means of expression are allowed, the modern designer is free to create, to create a design beyond the framework of the conventional, guided by his own artistic impulses, skills, knowledge and intuition. Very often, however, successful design is such precisely because the designer is well-versed and knows how to handle the basic knowledge of the main principles and elements of design, as well as being well-versed in the characteristics of the main approaches. For this purpose, in relation to the modern decorative approach, the categorization of the main types of decorative design comes to our aid.

**Naturalistic design** – In this type of design, the decoration exactly repeats the natural form. It is copied and looks realistic. The decoration can be three-dimensional - carving, plastic, sculptural form, 3D printed object, as well as two-dimensional - drawing, print, pattern. In past historical styles until the beginning of the twentieth century, this is the most common type of decorative design. In the rich carving of Baroque, Rococo and Empire furniture, for example, the naturalistically repeated natural forms of various elements of the plant, animal and marine world are clearly distinguished, often being present and related to the human body. All these elements are compiled in various combinations, forming lush compositions. In modern design, the approach is more related to the complete copying of a natural form - for example, a completely copied representative of the animal world, sometimes only a part of it, or various elements of the human body. Often these design objects are in real size and are used as an accent in the interior, sometimes they have an ironic character.

**Stylized design**. This type of decorative design is also mainly inspired by natural forms and resembles them. Here, however, they are stylized or simplified and adapted to the particular design, rather than copied verbatim. Stylization offers a different visual interpretation of the base form, where the source of inspiration is clear and the main components remain recognizable to a lesser or greater extent.

Geometric design. As its name suggests, it is a decorative design based on geometric figures, shapes and patterns. There is hardly any other twentieth-century style that exemplifies the play with geometric form better than Art Deco. The entire aesthetics of the style is built primarily on the creation of decorative elements from geometric shapes and lines. Trapezoidal, rectangular, triangular and much less often oval shapes are present both in facade decorations and in furniture, lighting fixtures, textiles, patterns, mosaics. From the largest scale to the smallest detail, everything in Art Deco is organized on the principle of combining geometric shapes, figures and lines.

Abstract design. As already mentioned, it was not until the 1970s that the Italian experimental studio "Alchemy" posed the question of whether functionalism was the only possible interpretation of Kandinsky's abstract paintings and presented interpretations of them in a very different aspect than the generally accepted up to that time. While they introduce abstract form quite deliberately in their collections, provocatively titled Bau.Haus, it cannot be argued that abstract form was not present in design before this.

What is abstract design? It is difficult to assign to any of the previous three categories, although it can often contain combinations and elements of each of them. With him we cannot say for sure who the source of inspiration and form is. They are interpreted to such an extent that they are unrecognizable, there is no visual reference to anything concrete and visible in them. Abstract design often interprets forms and paintings of abstractionism. In the interiors that we assign to this category, such works of art are usually present. Very often these abstract canvases are what unite the visual codes of the interior space, they are the focal point, the element on which the whole composition rests.

Many contemporary designers in their quest to create increasingly unique interior spaces use an overtly decorative approach when designing. The different types of decorative design honestly mix and interact with each other to produce exciting and impressive interiors. However, there are not many who develop their own unique visual language so strong and different that their interiors and objects are highly recognizable. We can list some of them: Karim Rashid, Jaime Hayon, Studio Job, Kelly Wersler, Marcel Wanders. Building one's own style is different for everyone, very often it is a collision of talent, opportunities, courage and circumstances. Referring to and drawing inspiration from the history of design, researching and analyzing the processes and events in the world of art and design in the 20th and 21st centuries also lie at the heart of success.

## Conclusions to Chapter Two

The decorative design approach has been an essential tool of artists throughout the history of the visual and applied arts. In contrast to the structural and sustainable approach, the origin and development of which are strictly determined by specific processes taking place in the society and culture of the 20th and 21st centuries, the decorative is the visual language of humanity, which can be traced back thousands of years. As we have seen in this chapter, its modern form is highly influenced by the cultural and social context of social changes that occurred in the twentieth century, and enrich the approach with new semantic and visual layers. The revived use of the approach after the 1950s has been read as a revolutionary iconoclastic act, returning the decorative statement to the artists' means of expression, but it is now inevitably charged with a conceptual character. The introduction of new materials, the possibility of interpreting past styles in a modern language, the realization of interiors by compiling objects from different stylistic groups, the use of digital technologies, the development of human knowledge giving access to completely new sources of inspiration, communication through design are main trends that change the decorative approach as meaning and way of use by artists.

The identification of a categorical criterion apparatus for the decorative approach is much more complicated than for the structural one, precisely because of the specificity of both approaches. The decorative approach, in its modern form, developed precisely as a negation of the structural one with its inherent strict adherence to rules of a visual and functional nature. It is the creative freedom and the lack of restrictions that are the main points defining modern decorative design. With him, to a much greater extent, a good mastery of the basic principles of compositional construction, knowledge of the history and theory of art and design, the designer's emotionality and creative sense are the keys to successful design.

The categorization of the main types of decorative design presented in this chapter is certainly a good basis for working with the approach. There are also leading criteria that a welldesigned interior meets through a decorative approach.

# Third Chapter A sustainable design approach

#### Design in the context of sustainable development

There is hardly a more relevant topic in modern design theory and practice than that of sustainability. Just as each decade of the past 20th century has defined design in many layers through the paradigm of historical events, political doctrines, social and cultural changes in societies, so, looking back at the first two decades of the 21st century, future design historians will most likely define the leading trend of our modernity through the sustainability paradigm. What is sustainable development and how does it relate to design?

One of the first official written documents of fundamental importance that defined the term "sustainable development" was the Brundtland Commission's report "Our Common Future", published in 1987. The report "Our Common Future" laid the foundation for the concept of sustainable development and from the position of time, it can be argued that, to a large extent, it provides a stable foundation on which sustainable concepts, activities, theories, practices, developing on a larger scale and globally in the coming decades, are based. To use a figurative example, we can compare the report of the Brundtland Commission to that specific, pivotal event that breaks the 'avalanche cap'. In the years immediately following its publication, the avalanche was slow in coming and a mere sight in the distance, which seemed not to particularly affect the observer, whereas nowadays it has permeated almost every aspect of human activity, and to a greater or lesser extent determines actions , policies, business, management decisions, science, education, etc., i.e. almost every aspect of our present being.

Although humanity has achieved much in the last more than thirty years, in most of the strategic fields of development outlined in the Broodland report, the global picture has not undergone major changes in general terms.

Proof of this is the 17 strategic goals for sustainable development adopted in 2015 by the UN with a horizon of 2030. Although there are new nuances in some of the aspects, the overall vision remains the same - to end poverty and hunger, to protect the planet from environmental crises (local and global) and with joint efforts to strive at the end of the strategic period for humanity to enjoy peace and prosperity. This strategy also marked out the main pathways by which these goals would be achieved, and in fact most of them had been outlined as far back as 1987. The difference is that in today's world the level of awareness of the problems and the taking of action is much higher. -different level from the late 80s. This, it can be argued, is a success of the strategic

plan of the Brundtland Commission, because the strategy for sustainable development is no longer a priority only at the level of state administration and non-governmental organizations, but is embedded in the plans and actions of a huge percentage of businesses (both small and local, as well as multinational), educational institutions, cultural organizations, local municipalities, local communities, regions within different countries. In practice, almost all human activities in a global aspect are increasingly subject to the concept of sustainable development.

In both documents, it is clearly emphasized that the way to achieve the set goals is international support for developing countries through educational, humanitarian, financial, etc. policies, on the one hand, but also by reducing the overconsumption of goods and resources by developed economies, on the other - the so-called "responsible consumption". In practice, however, it is evident how insufficient these actions are, how slowly results are achieved, and how many of the problems deepen and even generate new ones.

Mass culture, consumer society and disposable society are social and cultural phenomena that have their genesis in the post-war period of the 1950s and 1960s, but also define the global society in which we live today. The importance and participation of design in the development of these social processes has been clearly explored and defined by design historians (see Raizman 2010, van Helvert 2016, Kaloyanova 2016, Serginov 2015). Design plays an essential role in the new, modern myths created and enforced through mass culture. It provides the individual with the images and models that give shape to his aspirations. (Kaloyanova, 2016, pp. 44-51)

It is clear that taking the consumerist myth and lifestyle to the extreme is linked to the generation of amounts of pollution and waste that are currently difficult to manage on a global scale. At the same time, self-realization through the consumption of beautiful, expensive goods and services, the expression of personality through the added value of consumption, seems to be at its peak in recent years. This is also due to the rapid development of social media and the decentralized, networked possibility for overt and hidden advertising of the manufacturing companies and the brands they offer. Overproduction and overconsumption leading to the waste of resources and the generation of unjustified amounts of waste and harmful emissions, advertising, which plays a major role in stimulating consumption and creating false aspirations and desires for self-affirmation through consumption in consumers, are all major criticisms topics in Victor Papanek's theoretical research, practical work and extensive educational activity.

The birth of the ecological idea can be traced back to the very beginning of the 1960s. One of the authors studied in the dissertation, Stuart Walker, sees this process as the "evolution of the modern myth" (Walker, 2006). He enumerates several aspects of the concept of sustainable development in relation to the formation of this modern myth that has arisen from science, technology and concrete circumstances, using the metaphorical language of myth through which culture articulates its deepest concerns. According to him, like many previous myths in human history, sustainable development strives for an undefinable, unattainable goal. This myth contains the idea that if the message is not heard and we do not change our behavior, we will cause the destruction of our own civilization, of everything, even the planet. This message has an ethical and an environmental side. It is, on the one hand, related to the concept of social equality and improving the living conditions of people in need, especially in developing countries, it also encourages the preservation of the natural environment, the reduction of energy used, the limitation of consumerism and human greed. This modern myth, Walker continues, is about a sense of loss. It is, we might argue, archetypal in its very essence, echoing myths from all religions about a lost Paradise.

Perhaps the most popular of modern theories, having the power of a guiding manifesto in the field of sustainable design, relies on this very myth to attract the attention of professionals and the public. A fairly successful strategy that aims to excite precisely at this archetypal level, to awaken a sense of guilt and a desire for change. This is a really successful tactic given the information overload of today's society. The theory is called Cradle to Cradle and it is a completely new approach to sustainable design that seeks to replace the currently widespread "Cradle to Grave" principle. The concept has many advantages, one of the strongest being that it takes the production and materials used in it to a whole new level. The main mission of the concept is to completely rethink the concept of "sustainability", which at the moment is still mainly associated with practices of reducing the harmful impact and recycling.

In the last dozen years, the theories of sustainable design have come out of their conceptual level and mythologized essence and developed in many practical directions, in real and well-executed projects, in micro-businesses and corporate practices, actually offering real opportunities to build and design a healthier, a safer and fairer environment for people, with thought and care for the environment.

### A sustainable approach in contemporary design.

### Eco design, green design

The sustainable approach is a modern design tool that addresses every stage of the design and creation of products, materials and spaces so that they meet the basic principles of sustainable development. The sustainable design approach contains in its essence the concepts of eco design and green design, and very often all three definitions are used to denote an essentially identical process. Based on the numerous studies on these concepts in design, we can summarize that most often the definitions of eco and green design are fragments of the overall concept of sustainable design.

The sustainable design approach is a complex process, the ultimate goal of which is to create products and spaces that have a beneficial impact on both their users and the environment, they are designed and created to be sustainable with a long-term horizon. In this process, the correct selection of processes, products and materials whose production is environmentally friendly from the extraction of the resources, through the use, to the possibilities of beneficial action after the end of the use of the product or the final stage of the process, is essential. These products, materials and processes are often referred to under the terms 'eco design', 'green design' and 'design for the environment - DfE'.

## Application of the sustainable approach in modern interior design. Processes, materials and products

Interior design is an activity containing two main directions. One relates to the purely creative aspect of creating interior space, following the principles of composition and conceptual theories applicable to interiors as they are to all other visual arts. The second refers to the processes related to the practical realization of the interior project. The sustainable approach is a modern design tool, referring to every stage of the design and creation of the interior, so that it meets the basic principles of sustainable development. In the space designed successfully through a sustainable approach, a maximally healthy environment for its users has been achieved. In this interior, materials, furniture and objects with minimized harmful effects on the environment and humans or with completely positive ones are used, and here the whole process is covered - from the input raw materials, through production and transport, to the envisaged solutions at the end of

the life cycle . Energy efficiency is also essential in sustainable interiors, whether residential or public. Creatively, the sustainable design approach can be combined with structural or decorative to realize the leading visual concept in the specific interior.

By tracing the processes related to the genesis, development and current state of the sustainable design approach, separate periods can be clearly distinguished. The theoretical foundations and concepts laid down in the 1970s, the genesis of individual practices in the 1990s and their exponential development and categorization in the 2010s. In the last ten years from 2010 to 2020, processes and practices have undergone such a serious and multifaceted development that in modern interiors it is not only possible to build a complete environment by using eco-friendly products, materials and processes, but we also have an ever wider choice. This means that we can rationally create interior compositions without the decision to use a sustainable approach limiting our visual and compositional, aesthetic and creative choices as designers.

## Conclusions to Chapter Three

Design in the first two decades of the 21st century is distinguished by innovative actions and conceptual theories, laying the foundation for sustainable development. Shaped by specific historical and cultural processes developing since the 1950s, the sustainable design approach is the most comprehensive design tool in use today. The development of the approach, related to the definition of a theoretical framework, began already at the end of the 1960s, and the practical aspects were increasingly tangibly traceable in the 1990s. While in this period, it can be argued, it is a kind of proto sustainable design, it undergoes exponential development and in the second decade of the 21st century we already observe a complex system of research, innovative and practical accumulations that are relevant to the sustainable design approach. The research thesis and the conclusions drawn in this chapter clearly define the theoretical and historical framework, the practical toolkit, the current state and trends for the future development of the sustainable design approach.

In this chapter, the most up-to-date publications related to the creation of an up-to-date and comprehensive criteria apparatus related to the sustainable approach were examined and analyzed. Based on the research and conclusions made in the chapter, the leading criteria that must be met by the modern interior designed with a sustainable design approach are presented.

#### CONCLUSION

The main design approaches essential for the interior design system are investigated in the presented dissertation. Each approach is researched and analyzed in the specific historical context of its origin and development, as well as its current state. The three main approaches are defined and classified both through their conceptual essence and theoretical basis, and according to their specific practical tools and visual language. The present study proves that interior design is a complex system of intersections of theories, concepts, practices and activities of great importance for the formation of the cultural layer in the twentieth century to the present day. Each of the presented design approaches - structural, decorative and sustainable - has its significant presence in modern interior design. As in any system, there is an intertwining of some of the aspects of the different approaches, and in the specific case it consists not so much in blurring the boundaries between them, but rather in the assimilation of specific practices. The sustainable approach, for example, which is inherently much more conceptual than the other two, can be put to practical use with great success by pairing with either structural or decorative in the visual language, respectively. Also, some practices are inherent to both the decorative and the sustainable approach. Such a striking example is re-design, which, as we have seen, was introduced as a practice by Mendini in the context of the postmodern rejection of modernism and functionalism and a revival of the decorative approach. At the same time, re-design is one of the most important methods for creating furniture and objects in the context of a sustainable approach.

In the first chapter of the presented dissertation, the structural design approach is investigated, and the time frame of the study covers the stormy period of design development as an essential activity, having a proven influence on the formation of the cultural layer in the first half of the twentieth century. The modern and innovative reading of the events, activities, avantgarde theories and visual samples of the period clearly prove the formation of the approach, its conceptual essence and its reflection in the design methodology for the visual construction of the compositions of the objects and interiors. Due to its aspects and characteristics, the structural approach is one of the most applied in the design of the present, this is also evident from the visual examples presented in the appendices. Creators use it to create interiors with a minimalistic statement and a functionalist sound, with clearly distinguishable materials, strictly following compositional rules. Another innovative discourse in this chapter is the research and presentation of the leading role that specific women designers had during the period, as their activity is hardly mentioned in the scientific literature in Bulgaria, and their field of work is unknown.

The object of research in the second chapter is the decorative design approach, which is the only one of the three invariably present as the main tool of artists throughout our civilization. It is as its opposition that the structural approach appears and develops. The revival of the decorative approach after the second half of the 20th century developed in a new socio-cultural situation, not identical to any other period in the history of mankind. The development of production, industry, mass culture, mass media, the consequences of the two world wars, avant-garde practices and radical new theories and approaches in all the arts are just some of the aspects that shaped the social and cultural situations that led to the post-modern era. Design, proven to have a major role in shaping the cultural images and symbols of the era, invariably embodied in its fabric all these changes. The revival of the decorative approach in this context is a revolutionary iconoclastic act against the symbols of the modernist era. Decorative language finds its place again in the means of expression of artists, but it is now inevitably charged with a conceptual character. Creative freedom and the lack of restrictions are the main points defining modern decorative design. For him, to the greatest extent, a good mastery of the basic principles of compositional construction, knowledge of the history and theory of art and design, the designer's emotionality and creative sense are the keys to successful design. The social and cultural changes described also have an impact on the birth and development of the approach that is most relevant in our time - the sustainable one. The third chapter presents and analyzes the historical context in which theories and subsequently practices related to the concept of sustainability and sustainable development were developed. The role that design has in adverse activities that have led to the need to rethink the existing paradigm of production and consumption is explored. Leading theories in the field of sustainable development and sustainable design are reviewed and analyzed. An analysis and analysis of a number of scientific texts was made in order to clarify the common points of contact and the differences between the terms eco design, green design, sustainable design. Large-scale and rapidly growing environmental crises and specific design solutions to deal with and limit them are examined. Interdisciplinary scientific publications and reports of international organizations are used to support the formed theses in order to avoid popular talk and to consider sustainable development in the context of the myth of paradise lost. State-of-the-art, basic and leading conceptual and rational activities, practices and materials that participate in the formation of the means of expression, visual language and innovative methods of the sustainable design approach are presented.

The present dissertation enriches the theory of design by introducing the concept of design approach into the scientific terminology, in its entirety, at the same time as a conceptual foundation and a practical tool. The study has value for both design theorists and researchers and interior design practitioners.

#### BIBLIOGRAPHY

Барт, Р. (2004) Нулева степен на почерка. Митологии. София: Колибри ISBN: 9545293055

Геел, Ян. (2016) Градове за хората. Жанет 45 ISBN: 978-619-186-269-6

Дворянов, О. (2003) Концептуалната тенденция в съвременното изкуство. София: Веда – Словена ISBN: 954-8510-79-0

Димитрова, Л. (2018) Постмодерният орнамент. София: Университетско издателство "Св. Климент Охридски" ISBN: 978-954-07-4389-9

Делчев, Кр. (2012) Философски ескизи върху съвременното изобразително изкуство от междувековието (1990-2010). София: Изток-Запад ISBN: 978-619-152-028-2

Иванова, Н. (1984) История на дизайна. София: Наука и изкуство

Калоянова, Б. (2016) Концептуален и устойчив дизайн. София: Литературен вестник ISBN 9789549602494

Кандински, В. (1998/1912) За духовното в изкуството. Превод от немски Н. Георгиев. София: Лик ISBN: 978619-529216

Сергинов, Б. (2008) *Дизайн проектиране*. София: Национална художествена академия ISBN 9789549214758

Сергинов, Б. (2015) Дизайн: Диалог и монолог. Факти, методи, прогнози София: Нов български университет ISBN 9789545358593

Стефанова, Р. (2015) Унгарски следи в развитието на модерния дизайн София: Аскони Издат ISBN 9789543830961 Фийл, Ш. и П. (2004) Индустриален дизайн. София: Алианс – 97, TASCHEN ISBN 9789549817249

Braungart, M., McDonough, W. (2008/2002) Cradle to Cradle. London: Vintage books ISBN 97800999535478

**Boradkar, Pr**. (2010) *Designing Things: A Critical Introduction to the Culture of Objects*. Berg Publishers ISBN 978-1845204273

Cohen, J. L. (1995) Mies van der Rohe. Taylor & Francis ISBN 9780419203308

Clarke, A. (ed.) (2011) Design anthropology object culture in the 21st century. Wien: Springer-Verlag ISBN: 103709102332

Clarke, A. (2016) Victor Papanek and the Struggle for Responsible Design. In The Responsible Object Amsterdam: Valiz ISBN 9789492095190

Fill, Ch. and P. (2004) Charles Renie Mackintosh. Taschen ISBN 3822832049

**Fuad-Luke, A.** (2009) *Ecodesign: The sourcebook.* San Francisco: Chronicle Books ISBN 9780811871297

Havenhand, L. K. (2019) *Mid-Century Modern Interiors*. Bloomsbury Publishing Plc ISBN 9781350045729

Helvert M. (ed.) (2016) *The Responsible Object* Amsterdam: Valiz ISBN 9789492095190 Jackson, L. (2007/1998) *The Sixties Decade of Design Revolution*. London: Phaidon Press

Lewis, H. (2001) Design + environment: a global guide to designing greener goods

Greenleaf Publishing Limited ISBN 1874719438

McQuaid, M; Droste, M. (1996) *Lilly Reich: designer and architect*. New York: The Museum of Modern Art, ISBN 087070144-4 (MoMA, T&H)

Nielson, K. J., Taylor, D. (2011) Interiors. An Introduction. New York: McGraw-Hill, ISBN 9780073526508

Parkinson, G. (2008) The Duchamp Book. London: TATE PUBLISHING ISBN 9781854377661

**Proctor, R.** (2012/2009) *1000 new eco designs and where to find them*. London: Laurence King Publishing. ISBN 9781856695855

**Proctor, R.** (2015) *The Sustainable Design Book*. London: Laurence King Publishing. ISBN 9781780674735

Raizman, D. (2010) *History of Modern Design*. London: Laurence King Publishing ISBN 9781856696944

Thompson, R. (2019) Sustainable Materials, Processes and Production. London: Thames & Hudson ISBN 9780500290712

Walker, S. (2006) Sustainable by Design. Earthscan/Routledge ISBN 9781844073535

UN: World Commission on Environment and Development (1987) Our Common Future United Nations; Oxford University Press. Достъпен на https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf последно посетен септември 2022

World Health Organization (2021) *Children and digital dumpsites: e-waste exposure and child health*. WHO Report: Достъпен на https://www.who.int/publications/i/item/9789240023901 последно посетен септември 2022

**Лоос, А**. *Орнамент и престъпление*. grosnipelikani.net. превод Антония Колева по Loos, Adolf: Trotzdem. Gesammelte Schriften 1900-1930 (hrsg. von Adolf Opel). Wien 1982 (Innsbruck 1931), S. 78-88. Публикуван 22.09.2011, прочетен 25.05.2012. http://grosnipelikani.net/modules.php?name=News&file=article&sid=211

Schluttenhofer C., Yuan L., (2017) Challenges towards Revitalizing Hemp: A Multifaceted Crop Trends in Plant Science, Vol. 22, Issue 11, 917-929 р. https://www.sciencedirect.com/science/article/pii/S1360138517301772#bib0120 публикуван ноември 2017, прочетен 19.08.2022

Amaducci S., Scordia D., Liu F.H., Zhang Q., Testa G., Cosentino, S.L. (2015) Key cultivation techniques for hemp in Europe and China, Industrial Crops and Products Vol. 68: 2-16 p https://www.sciencedirect.com/science/article/abs/pii/S0926669014003987#! Публикуван юли 2014, прочетен 18.08.2022

Beaumont NJ, Aanesen M, Austen MC, Börger T, Clark JR, Cole M, et al. (2019) Global ecological, social and economic impacts of marine plastic. Marine Pollution Bulletin. vol.142:189–195 p.

https://www.sciencedirect.com/science/article/pii/S0025326X19302061?via%3Dihub публикуван 2019, прочетен 22.02.2022

Fiederer, L. (2017) *Haus am Horn / Georg Muche*. https://www.archdaily.com/873082/adclassics-haus-am-horn-germany-georg-muche публикуван 12.06.2017, прочетен 12.01.2021 Guo X, Wang J., (2019) The chemical behaviors of microplastics in marine environment:

Areview.MarinePollutionBulletin.2019;vol.142:1-14p.,https://www.sciencedirect.com/science/article/pii/S0025326X19302036публикуван2019,прочетен22.02.2022

Lozev, R. (2017) Critical Design Practices for Sustainable Design and Its Evolution. Proceedings, ISEM7, October, 4-7, 2017, Sutomore, Montenegro, p. 157-163. Достъпно на http://www.ecologicamontenegrina.me/isem7proceedings 15.07.2022. Institute for Biodiversity and Ecology ISBN 978-86-908743-6-1

Montford S., Small E. (1999) A comparison of the biodiversity friendliness of crops with special reference to hemp. J. Int. Hemp. Assoc., Vol. 6, Issue 2: 53-63 p., https://www.scopus.com/record/display.uri?eid=2-s2.0-

0007488528&origin=inward&txGid=ecacc2654eeefc676b941dbdf20c80d8 прочетен 18.08.2022