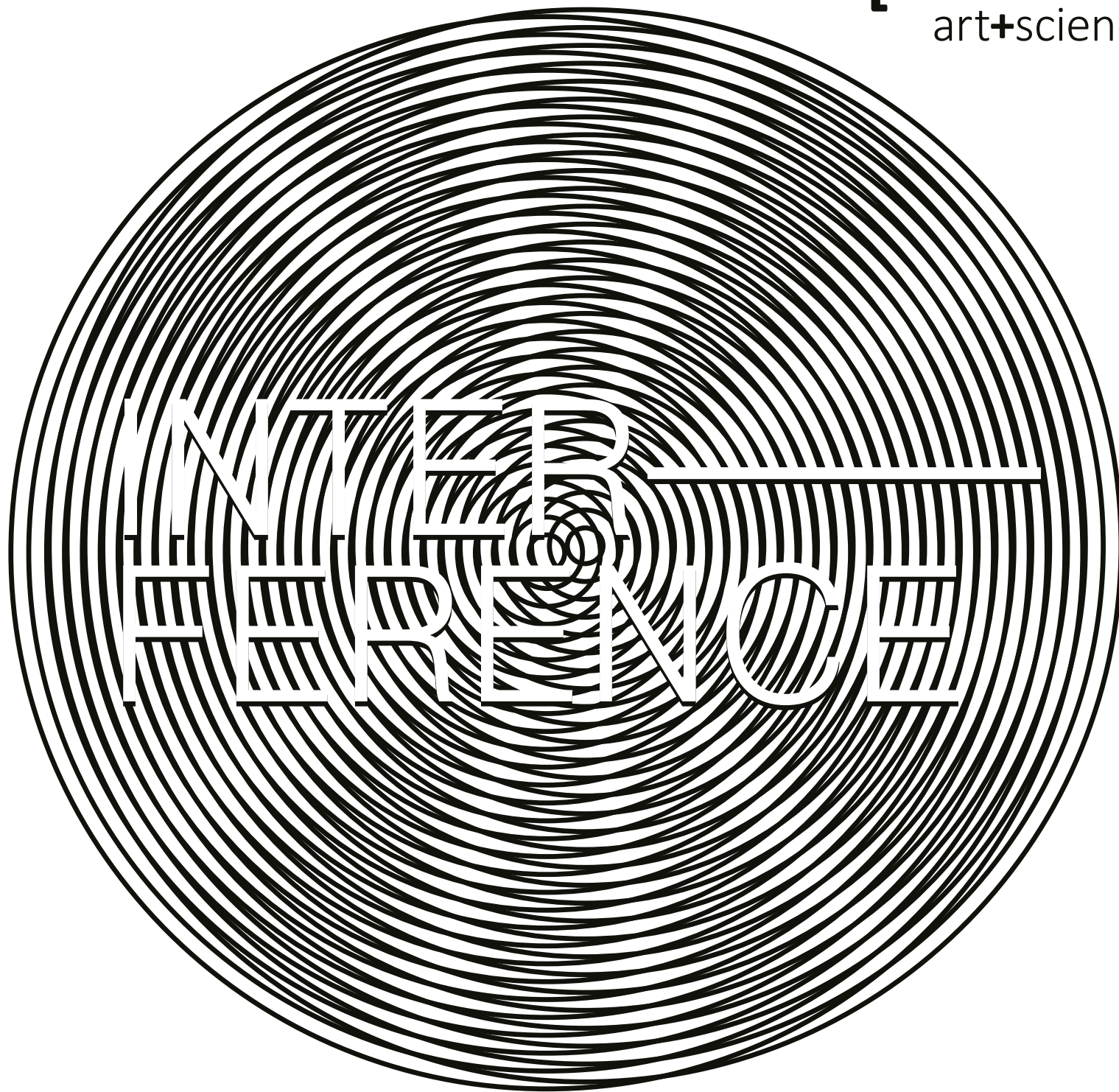


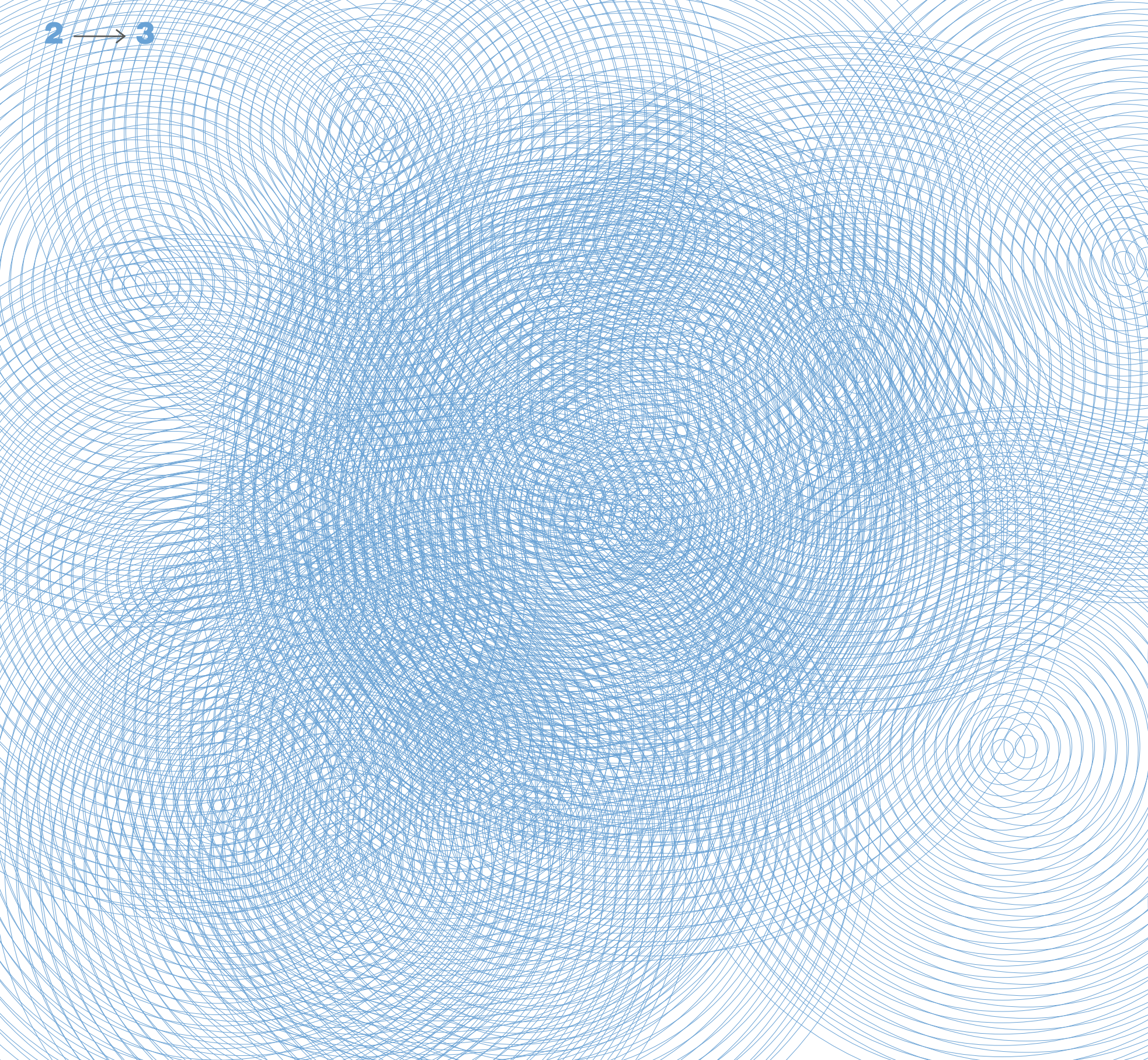


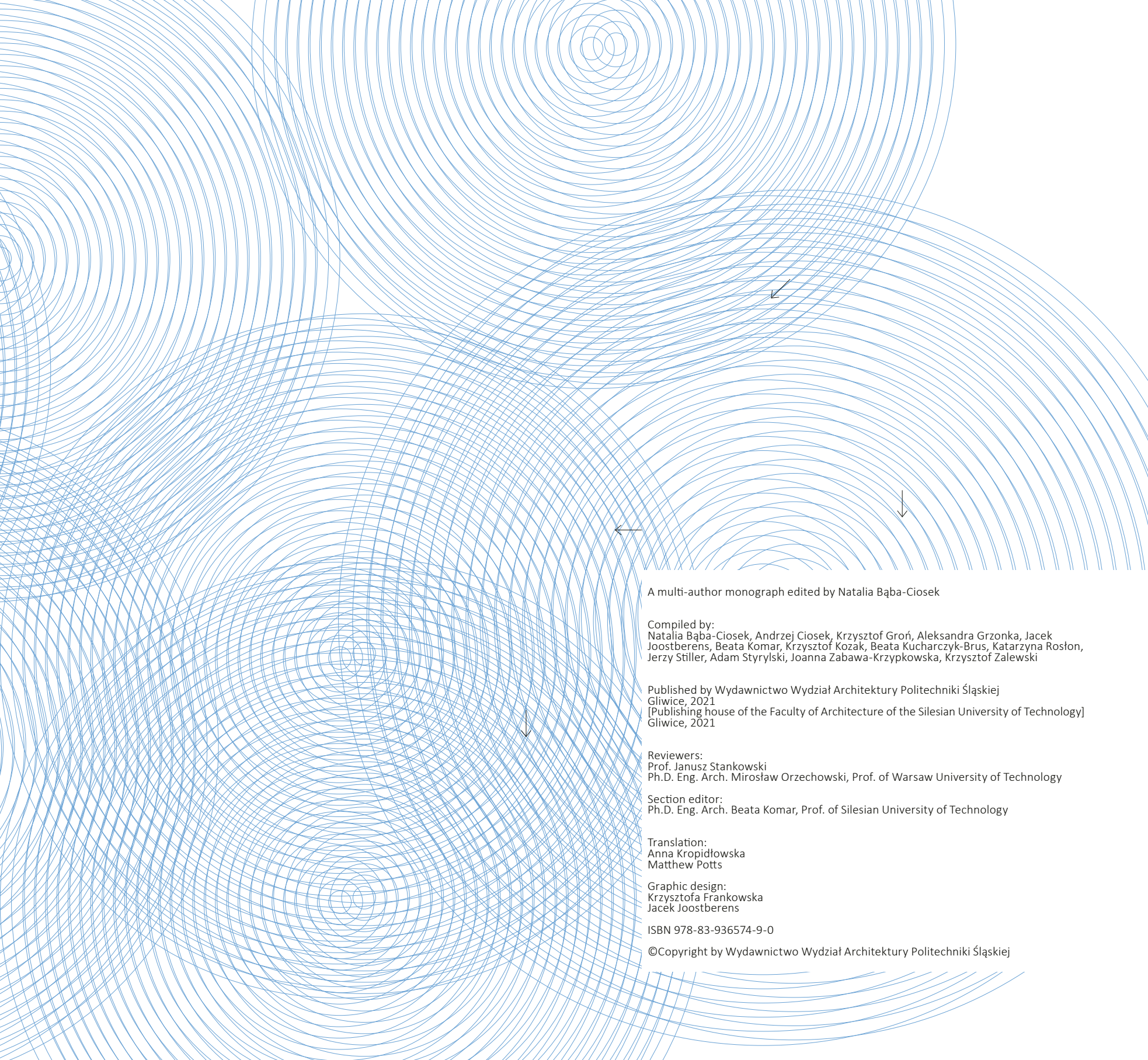
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A multi-author monograph edited by Natalia Bąba-Ciosek

Compiled by:
Natalia Bąba-Ciosek, Andrzej Ciosek, Krzysztof Groń, Aleksandra Grzonka, Jacek Joostberens, Beata Komar, Krzysztof Kozak, Beata Kucharczyk-Brus, Katarzyna Rosłon, Jerzy Stiller, Adam Styrylski, Joanna Zabawa-Krzypkowska, Krzysztof Zalewski

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4 → 5

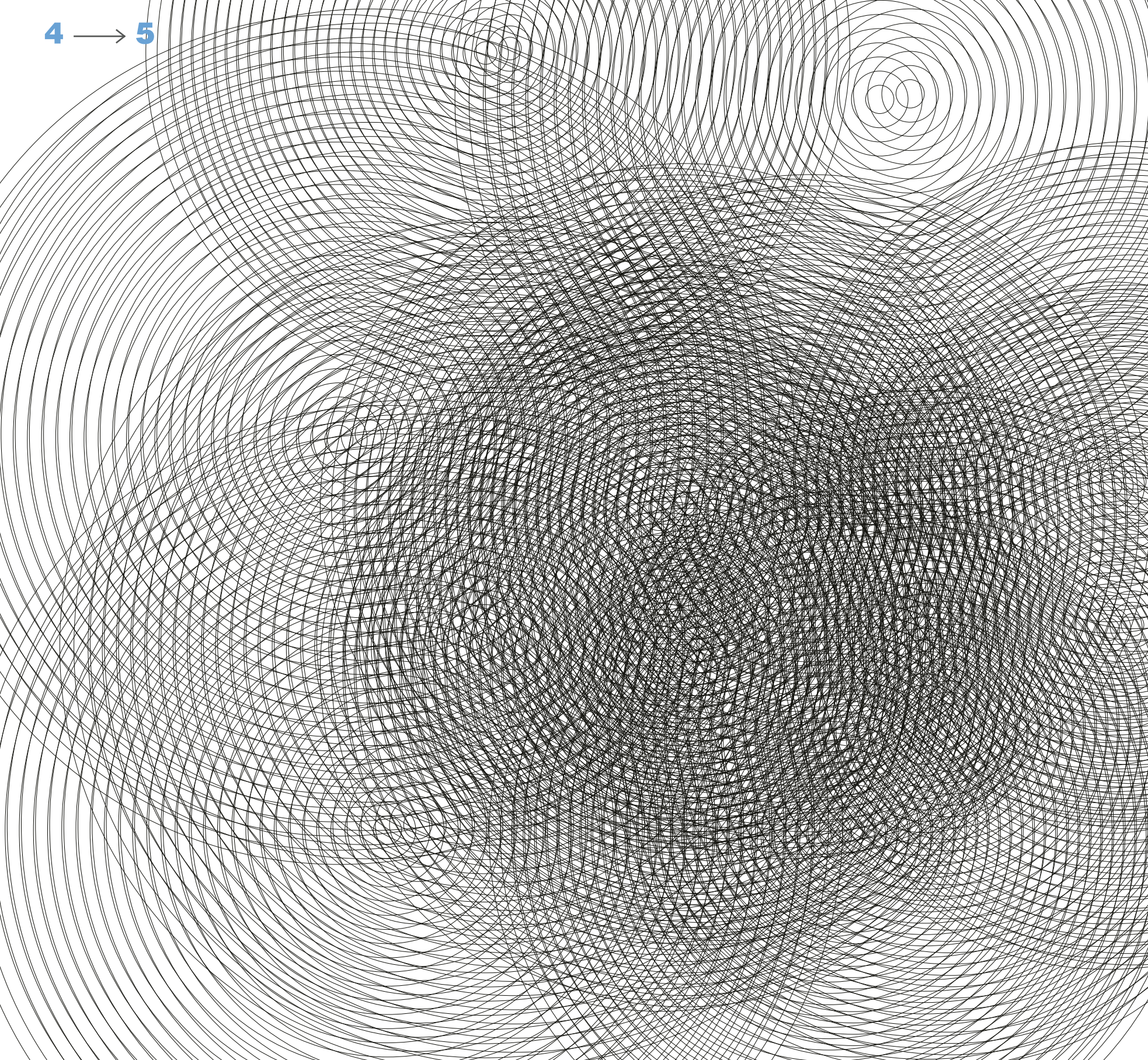


TABLE OF CONTENTS

	7 →	Introduction
11 →		Beata Kucharczyk-Brus Housing Interiors. Prerequisites and selected design problems, quality assessment Course: Introduction to Design, Basics of Interior Architecture I
	21 →	Aleksandra Grzonka Restaurant space – selected issues and original projects Course: Basics of Interior Architecture Design 2 and 3
31 →		Katarzyna Rosłon Transformation of the interiors – selected issues concerning the adjustment of existing interior spaces Course: Basics of Interior Architecture Design 4, Bachelor's Degree Project
	39 →	Jerzy Stiller Contexts of architectural design Course: Interior Architecture Design 1 and 2
47 →		Krzysztof Zalewski Narration. The tool of inspiration and creation in architecture – selected examples of didactic and author's own realisations Course: Interior Architecture Design 3
	59 →	Natalia Bąba-Ciosek An idea in the designed space Course: Basics of Exhibition Design, Exhibition Design
67 →		Krzysztof Groń Designing for industry – opportunities and threats Course: Basics of Furniture Design, Furniture Design
	79 →	Andrzej Ciosek Creation of design and its technical conditions Course: Detail in Architecture and Interior Design
	89 →	Joanna Zabawa-Krzypkowska Drawing – the process of perception, thinking and creation. The role of hand drawings and basic fine arts issues in the process of educating students of architecture Course: Psychology of Visual Perception, Drawing
	97 →	Adam Styrylski The connections between fine arts and architectural design Course: Painting, Colour and Painting in Architecture
	103 →	Beata Komar Fine arts in the city space – selected examples Course: Art Techniques in Architecture
113 →		Jacek Joostberens Graphic art in the architect's workshop Course: Typography and Design of Sign, Graphic Design and Photography, Graphics Workshop
	125 →	Krzysztof Kozak, Krzysztof Zalewski Biophilic design in architecture and interior design. Selected design problems in the area of didactics and practice Course: Ecological Design in Architecture

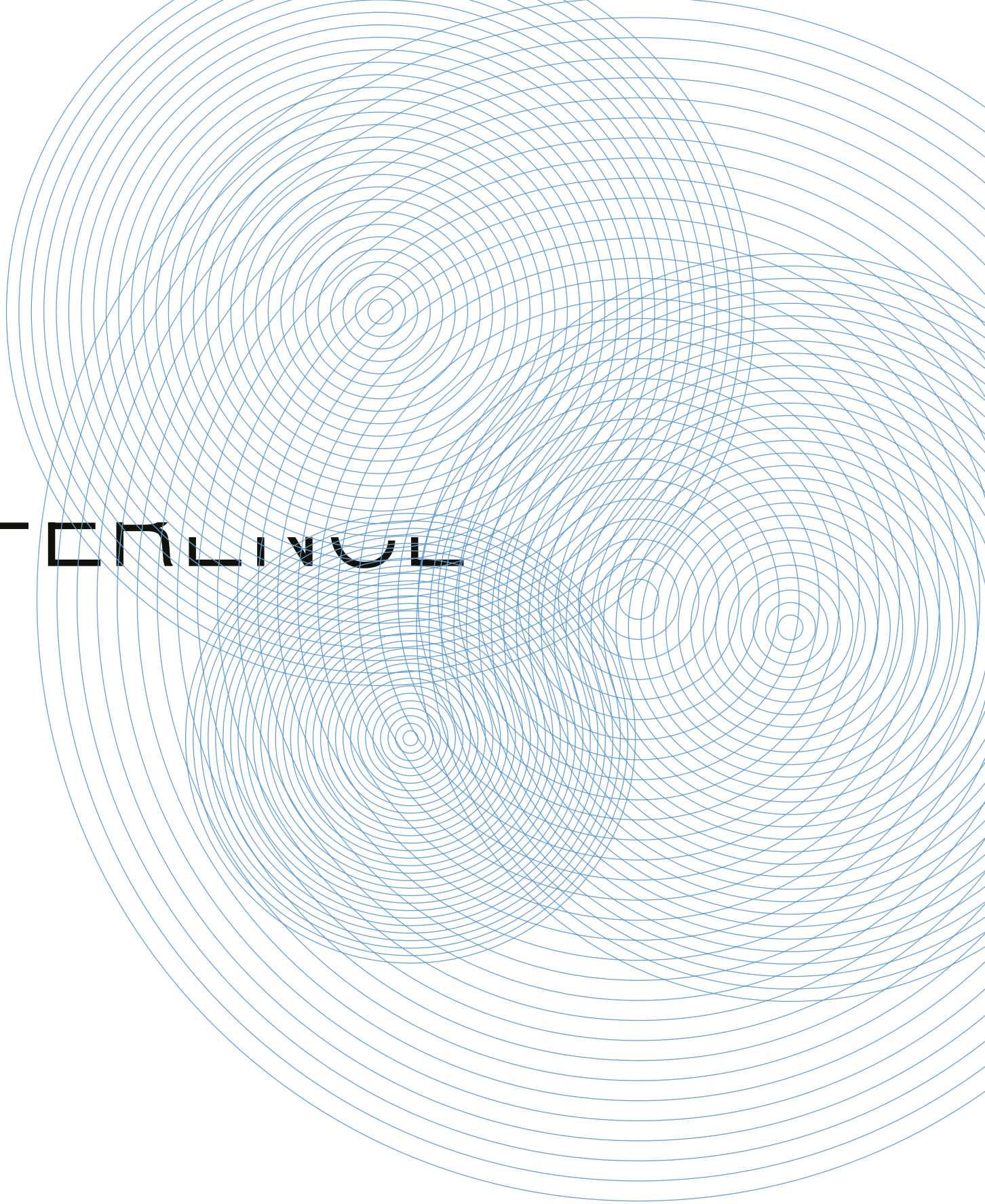
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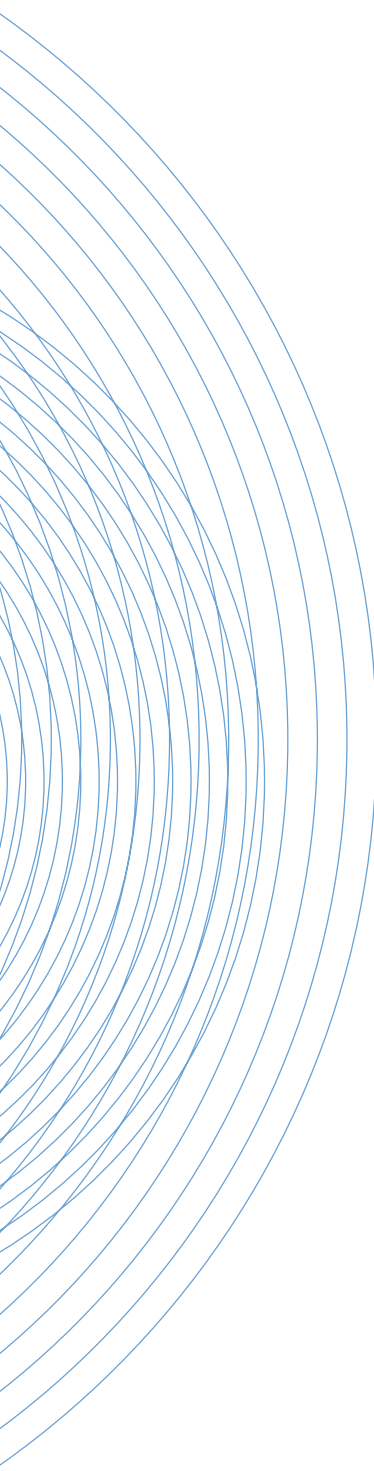
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6 → 7

Introduction

GENERAL





Introduction

[Interference] art + science is a multi-author monograph which constitutes the second, extended edition of the publication issued in 2016. It consists of a series of studies whose authors are academics of the Department of Fine Arts and Design and other teachers and researchers of the Faculty of Architecture of the Silesian University of Technology in Gliwice, involved in scientific and didactic work in the field of architecture and art. The studies are independent chapters in which the authors present the results of their artistic and research works related to creative and didactic activities, some of which are theoretical considerations and research in the field of art and science.

[Interference] in the current edition retained the original 2016 publication concept, including the structure and layout of the chapters. The entire study has been supplemented and extended

with the current content and documentation of project implementation, as well as a new chapter which is a consequence of the research undertaken in the field of broadly understood ecological issues in architecture and art.

Two groups of problems have been informally distinguished among the individual studies [Interference]. One of these groups clearly touches upon issues related to architecture understood as the art of design. It consists of multi-threaded reflections on the contexts of design, the issue of ideas in the design space, the role of narration treated as a tool of inspiration and creation in architecture, through the issues of mutual dependence of creative creation and material and technical conditions, to the objectively conditioned side of the creative process, along with its design methodology, formal conditions and qualitative assessment, as well as opportunities and threats resulting from cooperation and design for the industrial sector. The second group consists of works focused on purely artistic, extra-utility aspects of creative endeavours, however, related to architectural creation. The role of drawing perceived

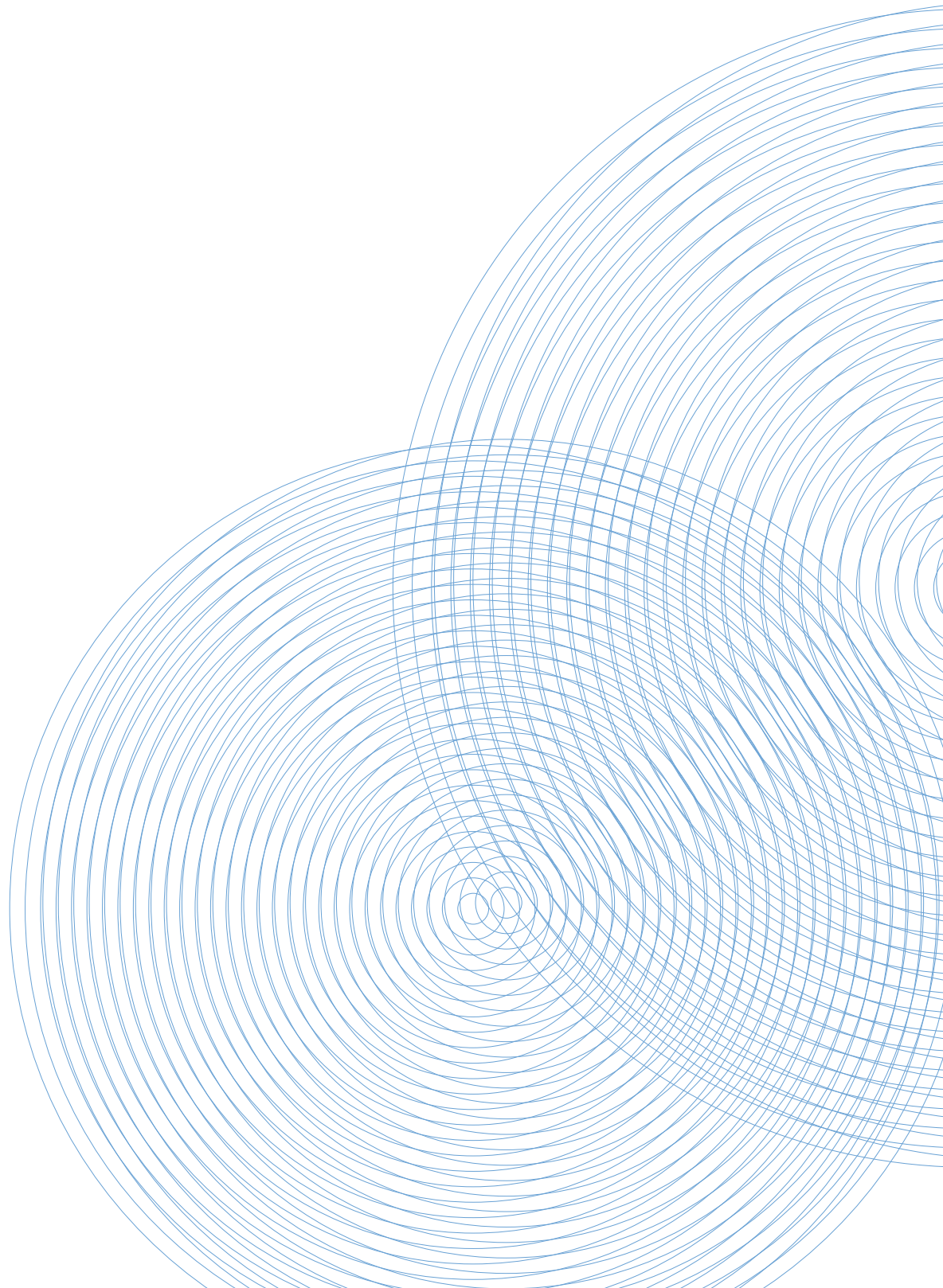
as a process of perception, thinking and creation, the role of graphics in a designer's workshop, interrelationships and relations between fine arts, especially painting and design arts, and finally the issues of broadly understood visual arts in the city space have been analysed here. The above-mentioned two thematic groups, two areas of artistic and research interest of the Authors refer, among others, to the main organizational principles of the Bauhaus, where the overarching idea was the joint work and learning of architects, painters, graphic designers, furniture and book designers, who set themselves the goal of creating consistent, modern implementations architecture and design. This kind of cooperation, based on artistic, design and research activities, referring to the diversity of interests and creative attitudes, but above all supporting, inspiring and integrating these activities and its individual authors, is the goal of the Department of Fine Arts and Design. It is a kind of programme declaration, which finds its reference not only in the implementation of the education programme, but also in the scientific and design sphere. The title [Interference] illustrates

the mutual interaction and coexistence, which in this case occurs not only between fine arts and design, but between art and science, or between practice and didactics. This multiplicity of references is the subject of our particular inquiries and attempts to know and study the space around us, where art and science pursue the same goal.

However, not only the experiences resulting from the scientific exploration of the built environment as well as multi-area design activities and artistic experiments became a pretext for the implementation of this study. Only the possibility of linking them with the results of our didactic work allowed us to fully illustrate [Interference]. Each of the chapters is supplemented with selected realisations of student projects, which are closely related in terms of problems and art with the subject of individual studies. Such compiled lists of original texts and exemplary student projects make it possible to follow the full cycle of education within design and artistic academic courses conducted by the academics of the Department of Fine Arts and Design at the Faculty of Architecture. They are also proof of the possibility of drawing from experiences resulting from individual creative practice in the process of educating future designers.

The idea for the publication [Interference] art + science arose as a consequence of a series of exhibitions [Integrality of Art], which presented complementary areas of fine arts and architecture. Exhibitions and accompanying events that appeared in the media space as an interesting platform for meetings of architects, designers and artists representing very diverse creative interests which became the inspiration for this study.

Natalia Bąba-Ciosek

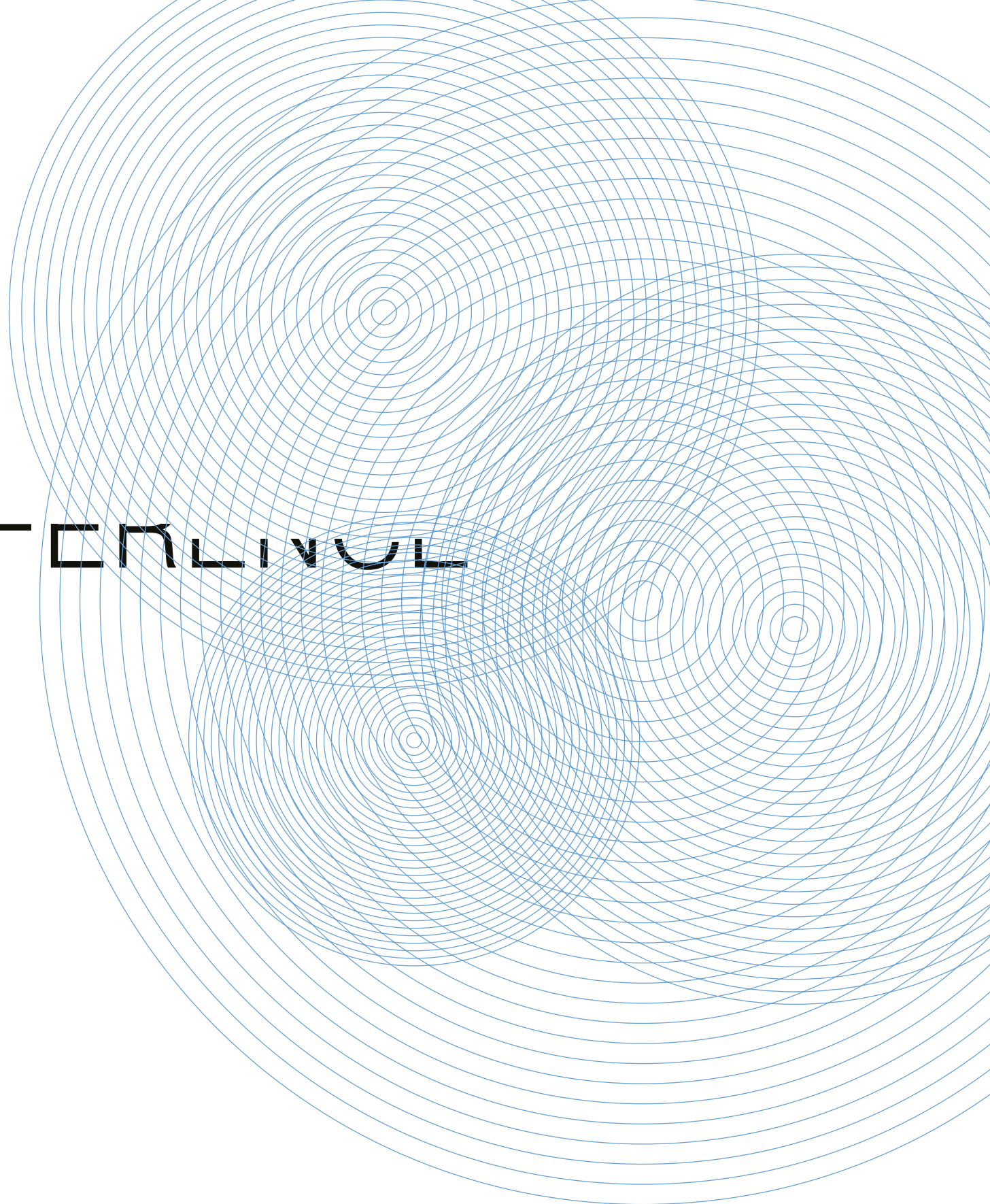


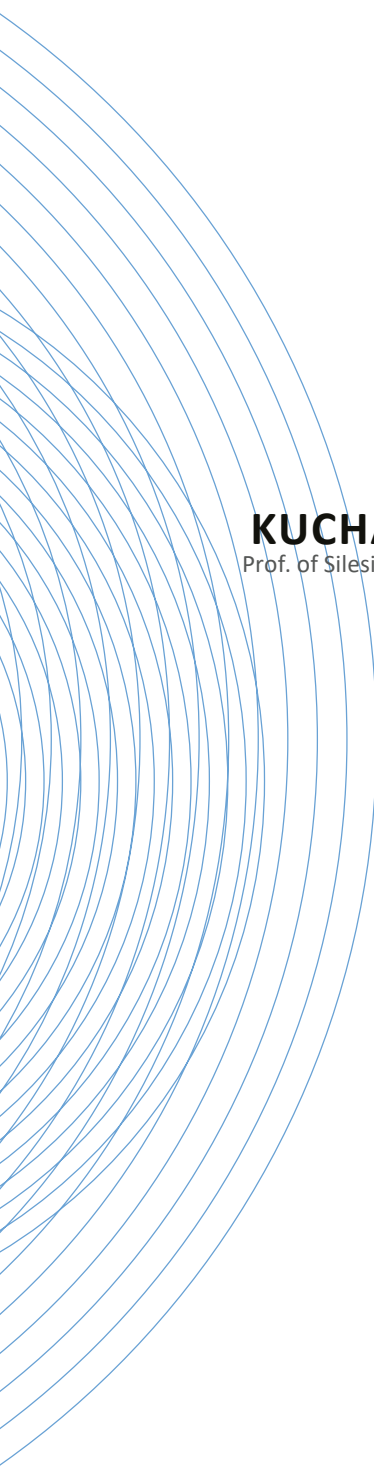
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10 → 11

Housing Interiors.
Prerequisites and
selected design
problems, quality
assessment

GENERAL





Ph.D. Eng. Arch.

**Beata
KUCHARCZYK-BRUS**
Prof. of Silesian University of Technology

Housing Interiors. Prerequisites and selected design problems, quality assessment

ABSTRACT

There are many sociological, economic, legal, conceptual and creative conditions that influence the process of forming the housing interiors, the most important of which are social factors, as satisfactory housing conditions are a guarantee of the fulfilment of basic human needs. The legal requirements generally refer to the design of multi-family housing and were specified in *Clause III, Chapter 7 of the Recommendations on technical conditions that housing and their location should fulfil (Journal of the Laws of the Polish Republic No: 2002/75. Entry 690 et seq.)*. The recommendations are to supply future inhabitants of housing complexes with basic functional systems and minimal technical standards that constitute modern civilization achievements and to create space that is accessible, devoid of structural barriers, so that flats could also be used by people with limited physical abilities. The programming of the housing

space, depending on the number and interests of future occupants and provision of its aesthetics should constitute the bases of architects' skills. Thus, the teaching syllabus for students of Interiors Design, Faculty of Architecture, Silesian University of Technology, obliges students to perform such task as early as at the 2nd semester of BSc. engineering courses.

The functional and spatial layout of the apartment should satisfy programmatically defined housing needs of future users. Since the functions of the human housing environment fit perfectly into the concept of the hierarchy of needs hierarchy, developed by Abraham Maslow (1943), rooms intended for the fulfilment of basic necessities – providing a place to sleep, rest, as well as creating a zone for preparing and eating meals, an area for maintaining hygiene and feeling security by being able to separate oneself from external stimuli and threats – have become the

basic element of shaping the interior of the apartment. The idea of a functionally planned apartment, situated in larger complexes intended for individuals and small social groups of similar systems, called multi-family housing, has evolved intensively since the end of the 19th century, along with the politically and economically conditioned need to build mass housing, widely available, “socially most necessary”.

As a result of the analysis of architects, designers and researchers, standards, regulations, norms¹ and acts have been established under the applicable law, containing design guidelines primarily for apartments located in multi-family buildings, but also certain spatial guidelines for apartments located in single-family buildings. The provisions changed over the decades,

¹ More information about Polish, post-war norms regulating housing development issues in: Kucharczyk-Brus B., *Mieszkanie w zabudowie wielorodzinnej – obraz ewolucji idei projektowej, uwarunkowań rozwojowych i sposobów użytkowania, na przykładzie Górnego Śląska*, Monograph No. 597, Wydawnictwo Politechniki Śląskiej, Gliwice 2016.

constituting more or less restrictive orders affecting the amount, shape and method of finishing and furnishing the residential space.

In Poland, after 1988, the application of housing area norms was abandoned, and all recommendations regarding the minimum dimensions of certain rooms are included in the *regulation on technical conditions to be met by buildings and their location* (existing text: Journal of Laws of 7 June 2019, item 1065, as amended). Since 1996, when the first document in question appeared after the systemic transformation, this regulation has been subject to constant changes and supplements, therefore the legal provisions should be monitored on an ongoing basis.

Currently, the regulations recommend that the size of a separate apartment should not be less than 25 m². The minimum height of rooms for people, including residential ones, has been set at 2.5 m. The minimum size of rooms has not been established and depends on investor's choices and users' preferences. In 2019, the provision relating to the minimum widths of the designed rooms was also repealed. The ordinance provides guidance on how to separate rooms in an apartment and on additional equipment improving comfort and safety of use.² Below have been listed detailed recommendations for the design of multi-family dwellings contained in the applicable regulations (Journal of Laws of June 7, 2019, item

² The regulations apply to the design of multi-family apartments and flats built with public support (e.g. built by TBS). Detailed guidelines for the design of such apartments are included in Section III, Chapter 7 of the *Regulation on technical conditions to be met by buildings and their location* (Journal of Laws of 7 June 2019, item 1065, as amended).

1065) and paragraphs already repealed (compare to: Journal of Laws of September 18, 2015, item 1422) which, although not obligatory, may be helpful in shaping the living space. An excerpt from the provisions relating to hygienic and sanitary rooms designed in public buildings is also presented, which can also provide guidelines for the design of these rooms in residential buildings:

- in a multi-family building, the width of the room walls in the light should be at least (currently repealed):
- a bedroom intended for one person – 2.2 m,
- a bedroom intended for two people – 2.7 m,
- kitchen in a one-room apartment – 1.8 m,
- kitchen in a multi-room apartment – 2.4 m.
- in the apartment, at least one room should have an area of not less than 16 m² (the provision is currently repealed).
- the apartment, in addition to living quarters, should have a kitchen or kitchenette, bathroom, separate toilet or toilet bowl in the bathroom, storage space, a place for installing an automatic household washing machine and internal communication space,
- the kitchen or the kitchenette should be equipped with a cooker, oven, a sink and have a spatial layout that allows the installation of a refrigerator and furnishing the kitchen workplace (the provision is currently repealed),
- rooms in the apartment, kitchen and kitchenette should have direct daylight;
- in a one-room apartment it is allowed to use a kitchen without windows or a kitchenette connected to the hall, provided that at least gravity ventilation (in the case of an electric cooker) or mechanical exhaust ventilation (in the case of a gas cooker) is used,

— in a multi-room apartment it is allowed to use a kitchenette in a room intended for a day stay, on condition that ventilation is provided in this annex; in the case of using a kitchen hood in the kitchen or in a kitchenette, it should be connected to a separate flue duct,

— in the bathrooms there should be a possibility to install a bathtub or a shower cubicle, a washbasin, a toilet bowl (if there is no separate toilet), the manner of arrangement of sanitary facilities should ensure easy access to them,

— a separate toilet should be equipped with a washbasin,

— the hygienic and sanitary room should have ventilation that meets the requirements of the regulation³,

— the minimum height of hygienic and sanitary rooms is 2.5 m, but a reduction of 2.2 m is allowed, if they are equipped with mechanical exhaust or supply-exhaust ventilation,

— wall and floor linings should be washable, moreover the floors should be non-absorbent and non-slip,

— doors to the hygienic and sanitary room: with a width of min. 0.8 m and a height of min. 2.0 m in the light of the frame, must have ventilation openings in the lower part and be open to the outside of the room; it is allowed to use sliding or folding doors,

— cubature of the bathroom room: min. 8 m³ with the use of a gas device; in other cases, if the room is equipped with mechanical exhaust ventilation, it is allowed to reduce the bathroom volume, however not below 5.5 m³; correlating this provision with the requirements regarding the height of the rooms enables to determine

³ Journal of Laws of June 7, 2019, item 1065 as amended

the minimum area of the bathroom room, respectively: 3.2 m², 2.2 m².
—— a toilet cubicle (separate toilet), not intended for disabled people, should have the smallest width of 0.9 m (in the light) and the surface in front of the toilet bowl should amount at least to 0.6 x 0.9 m in the horizontal projection, also fulfilling the function of a surface in front of the washbasin, if installed in a toilet cubicle; dimensions of a toilet cubicle intended for disabled people should ensure an unobstructed manoeuvring space of min. 1.5 x 1.5 m,
—— the shape and dimensions of the hall should allow the patient to be moved on a stretcher and to perform a manoeuvre with a wheelchair in places where the direction of movement changes,
—— corridors constituting internal communication in the apartment should have a clear width of at least 1.2 m, allowing for a narrowing of up to 0.9 m along the corridor length not exceeding 1.5 m.

Shaping the residential space is strongly conditioned by the social factor, and the space planned so that – as already mentioned at the beginning – meets the broadly understood human needs. Most of the apartments in multi-family complexes are organised as a family residence, having some common areas (kitchen, bathroom, hall, living room) and individual zones (bedrooms), ensuring a sense of intimacy and privacy. In the apartment, we can distinguish spaces shaped in accordance with the gradation of the degree of accessibility:
—— public (lobbies, halls) accessible to all visitors (e.g. a less known neighbour, postman, accidental visitor), constituting a buffer zone for the rest of the house,
—— semi-public – performing social functions, integrating the household members and giving the

opportunity to establish wider social relations: living rooms, dining rooms, multi-functional kitchens, playrooms for children; some people from the outside have access to these zones,
—— semi-private – shared bathrooms and toilets, lockers, pantries, work and hobby rooms, offices, library rooms; access to some such zones may be rationed in a way: intended only for some of the household members and selected people from the outside,
—— private – bedrooms, individual hygienic and sanitary rooms (assigned to a given bedroom), wardrobes; private zones are a necessary condition for maintaining the appropriate behavioural quality of housing, they give individuals a sense of safety, the possibility of isolating themselves and focusing on individual interests; access to these zones or interference, by outsiders and even by some of the household members, in the way these zones are used are rather unwelcome.

The flat space understood in this way is currently shaped by architects in accordance with the idea of exposing the central interior in the apartment, which is the living and recreation area. This zone occupies the largest possible open space and should be visible from the entrance area. The interior can also fulfil the function of the entrance hall (while maintaining a small area dedicated for hanging outerwear or storing external footwear) and a general room. In the case of two-level functional systems, part of the space is occupied by appropriately exposed stairs. The living area, in modern solutions, is often combined with the kitchen area, taking the form of an annex located behind the dining area table in the living room.

Research shows⁴ that this form of kitchen appliance does not suit some users, especially those who prepare meals for a larger group of household members every day. Their preferred solution is a kitchen as a separate room or a kitchenette illuminated by natural light (with access to an independent window) with the possibility of closing with doors or a system of sliding walls.

Semi-private and private spaces in the apartment are located further in the apartment, accessible independently from the hall or living room. In two-level flats, these zones are usually located on a storey other than the living area, both due to the gradation of space privacy, as well as isolation from traffic and noise.

Bathrooms and toilets, as spaces that can be both private and semi-private, should appear at various points in the apartment, integrated on the basis of a diversified compilation of functions: in the night zone – next to the bedroom, and in the day zone. Such a diversification unfortunately is not the case with the present design conditions, placing a strong emphasis on economic issues – reduction of the flat area, centralisation of systems due to the installation and ventilation shafts.

⁴ More information in: Niezabitowska E., Bartoszek A., Kucharczyk-Brus B., Niezabitowski M., *Środowisko zamieszkania polskich seniorów w badaniach interdyscyplinarnych. Studia przykładowe na wybranych przykładach*, Wydawnictwo Naukowe „Śląsk”, Katowice 2013; Kucharczyk-Brus B., *Mieszkanie w zabudowie wielorodzinnej – obraz ewolucji idei projektowej, uwarunkowań rozwojowych i sposobów użytkowania, na przykładzie Górnego Śląska*, Monograph No. 597, Wydawnictwo Politechniki Śląskiej, Gliwice 2016.

The spatial housing needs presented above change due to demographic, cultural and individual choices, which should be taken into account in the design process. Currently, the structure of social units living in multi-family housing units varies, and the traditional model of the nuclear family, for which the vast majority of the existing resource has been designed, relates rather to the concept of *what the family should look like* and is one of the wide range of basic social unit models, as mentioned by many sociologists.⁵ Most of the existing residential premises in mass construction have one: kitchen, bathroom, integration space (living room), bedroom for two, etc., which implies some kind of community: economic, privacy and intimacy.⁶ However, nowadays it is necessary to expand the stock of flats with diversified systems, as well as solutions enabling the free shaping of the internal space, depending on the needs of users. There can be distinguished several basic types of households where the needs of the residents clearly shape the spatial relations of the housing systems: — living in solitude – **single-person households**: young singles, childless people, after divorce or widowed, etc. As Christopher Alexander (2008) writes, an apartment for one person can be a simple, single-space layout, with separate annexes around the day zone (living room with a kitchen and a place to eat) as places to: sit (rest, reading, view from the window, listening to music), work (a separate study

⁵ Slany K., 2006, Alternatywne formy życia małżeńsko-rodzinnego w ponowoczesnym świecie, Wydawnictwo Nomos, Kraków; Szlendak T., 2010, Socjologia rodziny. Ewolucja, historia, zróżnicowanie, PWN, Warszawa.

⁶ Woroniecka G. [in:] Kempny M., Kiciński K., Zakrzewska E. (eds), 2004, p. 320.

area, a compact office in the apartment, the implementation of one's own hobby), bath and take care of physiological needs (bathroom, toilet), sleep (alcove, bedroom), get dressed (wardrobe), store items and souvenirs (pantry, locker). Examples of a residential space solution for one person, developed by students of the Technical University of Silesia as part of the Basics of Interior Design 1 course, is presented below. The cubist model space was organised in such a way as to separate the functional zones without creating separate rooms. Only the toilet was closed and integrated with the wardrobe in the entrance area. The spaces interpenetrate, the colour solutions used are conducive to relaxation and home tranquillity; — childless marriages and cohabiting couples – **one-generation households** for two people: space for two, apart from common areas, which are the domain of the couple, it should provide each person preserving one's individuality, i.e. containing territories where you can separate yourself freely and pursue your interests (a place for creative or professional work). The housing use programme remains the same as above, but the increased space requirements in the bedroom (double bedroom), work area and storage area must be taken into account. There is also a need to isolate the night zone from the day zone. This effect is best achieved in the design of a two-level residential space. Usable zones – day and night – can be divided over the next storeys. Hygienic and sanitary rooms can be designed in an unconventional way. Part of the sanitary function (e.g. a toilet with a shower cubicle) can be placed near the entrance area, at the bottom, while at the top, in the space integrated with the bedroom, you can place two washbasins

and a bathtub, along with the wardrobe. A place to work can be provided on both: the lower and upper floors; — parents with young or adult children, families reconstructed after divorce, etc., i.e. **two-generation households**⁷: the space should be divided into three separate territories: the domain of the elderly, the area of children, and the common space between these zones. These areas should be of similar size, with the common space larger than the others. The spatial needs of reconstructed families differ from the needs of a traditional family insofar as the offspring from different relationships reside temporarily or permanently in one apartment. Therefore, it is important to be able to ensure appropriate territorial conditions that guarantee meeting the behavioural needs of each household member. Apart from isolating the zones – day and night – and the need to multiply bathrooms, it may be necessary to double the kitchen zone (in the case of adult children living with their parents); — **cohabitation of unrelated people**, friendly groups, network systems of older people – unrelated, having no intimate relationships groups living together and running one household or remaining separate economic units: the apartment should contain domains that guarantee the privacy of individual residents, and the utility programme of each of these people resembles the space programme for a single person, described above. The flat should also include a general zone, integrating the community, however, it may be small, as in this type of housing arrangement private and individual

⁷ Alexander Ch. and others, *Język wzorców. Miasta, budynki, konstrukcja*, Gdańskie Wydawnictwo Psychologiczne, Gdańsk 2008, p. 391.

zones acquire a special importance. The living room zone with the kitchen area can be a common zone. It is necessary to intend a bigger part of the apartment for a properly separated night zone, maintaining the privacy of the residents, with a storage place and some space for creative work.

The last of the mentioned ways of living was quite widespread in the post-war period, in the era of considerable housing shortages. It is also gaining more and more importance today, especially in academic cities and large centres offering a rich labour market. Students and people who have recently started work share the costs of maintaining a rented apartment, but at the same time stay under a common roof for social reasons. This type of living model has been called by sociologists⁸ “migrant” housing or “not home” housing.

Most of the existing flats do not meet the appropriate spatial conditions to be converted into flats intended for cohabitation in a way that satisfies the users. In the way that allows them to incorporate the occupied space more easily so that it meets their behavioural needs, especially privacy and intimacy. Similarly, modern housing units do not take these issues sufficiently into account, although sociologists assume that it is in migrant flats that the answer to the question about trends in housing culture is hidden.⁹

⁸ More information on the needs of migrant housing users in: Łukasiuk M., Jewdokimow M., *Niedom. Socjologiczna monografia mieszkań migracyjnych*, Wydawnictwo Akademickie ŻAK, Wwarszawa, 2012

⁹ Woroniecka G. [in:] Łukasiuk M., Jewdokimow M. (eds), 2014, p. 57.

Another socially conditioned factor that affects the shaping of the residential space is the type of living and the way of using the premises preferred by users. Individuals, social groups and families differ in lifestyles that result from cultural and economic conditions and the models adopted in a given social layer. It sometimes happens that the home space has different functions than those provided for by the designer. Different socio-professional groups may have significantly different preferences regarding the grouping of functions in an apartment, the size of rooms intended for a kitchen, bedroom or living area. Recognizing these conditions and **designing universalistic solutions or solutions dedicated directly to a given social group** becomes extremely important in the era of intensifying migration processes of people from culturally different countries, which have developed other models of living space and may not have the ability to arrange some rooms, as was the case in the 1950s within families moving from rural areas to newly built city buildings.

Social conditions influencing the special solutions of the housing space include another important issue – the supply of apartments for people with disabilities, with limited motor, perceptual or mental abilities. The spatial needs of people in wheelchairs have been recognized by researchers and widely described in Polish and foreign literature on the subject. They became the basis for introducing new design ideas and detailed recommendations included in the Act. The legal provisions¹⁰ define the parameters that should be characterised by entrances

¹⁰ Journal of Laws of June 7, 2019, item 1065.

to buildings and flats to make them accessible to this group of users. It is also recommended that in multi-family houses, on the ground floor there should be apartments that can be easily adapted to the needs of people in wheelchairs. Examples of such spatial solutions and the exact parameters of rooms and their equipment are the subject of many studies.

An increasingly large group in Poland and other European countries consists of older people, for whom, as research shows¹¹, the living environment creates many architectural barriers that make it difficult or even impossible to exist independently. The physical and mental condition of this social group, with very diverse, individualized needs, decreases over the years, which is why a special design solution for a flat, as a place where seniors spend most of their daytime, becomes of particular importance to them. Detailed design guidelines for shaping and furnishing housing space for the elderly have been developed by researchers and largely coincide with the recommendations for designing apartments for people with disabilities. These are, among others: — entrance door with a visor located at a height optimal for short people, locks that prevent self-locking, concave, facilitating insertion of the key when the hands shake, a handle in the form of a long lever, — kitchen cupboards with deep drawers and pull-out shelves instead of fixed shelves, hob knobs

¹¹ More information on the living environment of the elderly in: Niezabitowska E., Bartoszek A., Kucharczyk-Brus B., Niezabitowski M., *Środowisko zamieszkania polskich seniorów w badaniach interdyscyplinarnych. Studia przypadku na wybranych przykładach*. Wyd. Śląsk, Katowice 2013.

on the front and not on the top of the worktop (preventing burns during use), a light-coloured kitchen worktop to create a contrast to the items on it, a two-compartment sink with a single tap lever, ——— all doors in the apartment are 90 cm wide, without a threshold inside, ——— cushioned floors, floor coverings (carpet or PVC) soft and warm, flat, with short hair (to prevent tripping), ——— bathroom equipped with an acrylic shower cubicle, with non-slip finish, handrails fixed to the wall and a folding chair, additional handrails attached to the toilet bowl, mirror above the wash-basin at a height suitable for short people, additional light above the mirror, emergency call button at a height of 60 cm above the floor, ——— electrical sockets at a height of not less than 40 cm above the floor, illuminated light switches, thermostat with large markings in the hall, 120 cm above the floor, alarm-call button in the bedroom, near the bed, at a height of 120 cm above the floor, ——— balcony, terrace, loggia or winter garden adjacent to the apartment, enabling visual contact with the outside world.

When planning the size of the living quarters, the possible communication area for a wheelchair (approx. 80 cm wide, 150 x 150 cm turning area) should be taken into account.

Another social phenomenon noticed today by sociologists studying family structures, but usually overlooked in research on the spatial needs of apartment users, is **the phenomenon of living together with domestic animals**. As emphasised by Tomasz Szlendak (2010), pets are considered by their owners as important members of the

family network and function as social actors in these networks¹². The animals are named, anthropomorphised and treated like children, therefore their behavioural needs should also be taken into account in the design process of housing arrangements. This issue has not been sufficiently addressed in the recommendations for housing design. Buildings and residential premises do not contain rooms or their parts intended for possible adaptation for the needs of cohabitation of domestic animals. Particular attention should be paid to cats and dogs, extremely popular at home, as they have specific requirements resulting from their species distinctiveness (need for territoriality, the need for shelter and a sense of security, specificity of meeting physiological needs, etc.) and cannot be treated as an accidental addition to interior design. In the student project presented below, the space of the apartment has been organised in such a way as to provide a place for arranging a suitable shelter for a pet. Near the kitchen there is a room for the animal, equipped with a bed, bowls for water and food. It is a place of safe haven that can be optionally opened to allow the animal to access more of the home space, or closed when guests arrive or when the animal needs to be temporarily isolated.

Since it is not possible to provide one perfect apartment model that would meet the needs of all potential residents, it is crucial to diversify the offered premises and build housing spaces that allow for any division, combination, enlargement and reduction, depending on the needs of the people using them. During the design

classes in semester 2, students of Interior Architecture at the Faculty of Architecture of the Silesian University of Technology carry out a task aimed at designing a residential interior for two – for themselves (taking into account the planned work as an interior designer and their interests and hobbies) and a potential flatmate (partner / partner, spouse), child, parent, grandmother / grandfather, siblings, friend / friend, etc. or animal: dogs, cats rabbits, birds, reptiles, etc.) considering the individual needs of each co-inhabitant. The application programme includes residential functions – rest, sleep, personal hygiene, preparation of meals, storage and work (taking into account the specificity of the design studio). The project is carried out in one of several given locations (to choose from): ——— in the residential building selected for adaptation – the project should include a flat with an area of approx. 37 m² and depending on the type of co-inhabitant, the basic module should be expanded:

- for an additional person, another apartment of a similar area, adjacent to the selected one from the side, above or below,
- for an animal – by half of the area of the residential module adjacent to the selected one,

———— in a set of residential containers – for a given social group (person + animal, two people), students task is to compose a set of three or four containers with dimensions determined by the teacher, in any spatial arrangement, at least one of them must be a higher floor layout, ——— in the model space – for a given residential function, an interior should be designed in a cubic space with dimensions determined by the operator, while at least part of

¹² Szlendak T., 2010, p. 104.

the usable area must constitute the higher level of the system (mezzanine).

The acquired skills of designing diversified residential space will be able to be used by future architects in their professional work.

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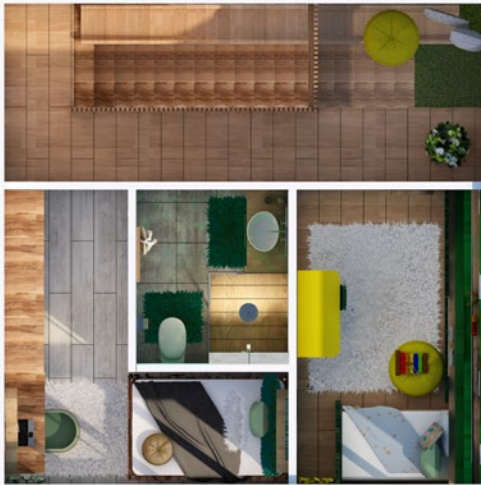
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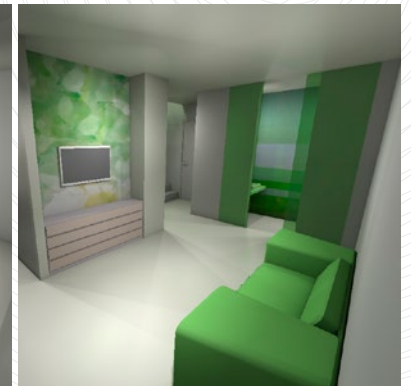
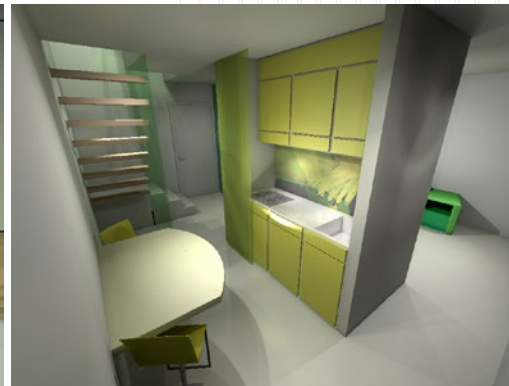
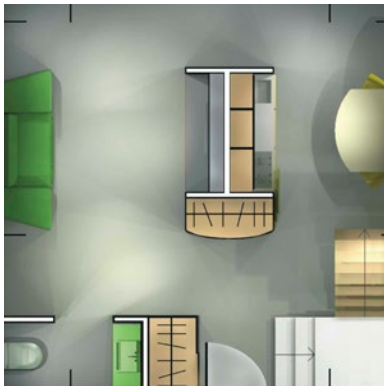
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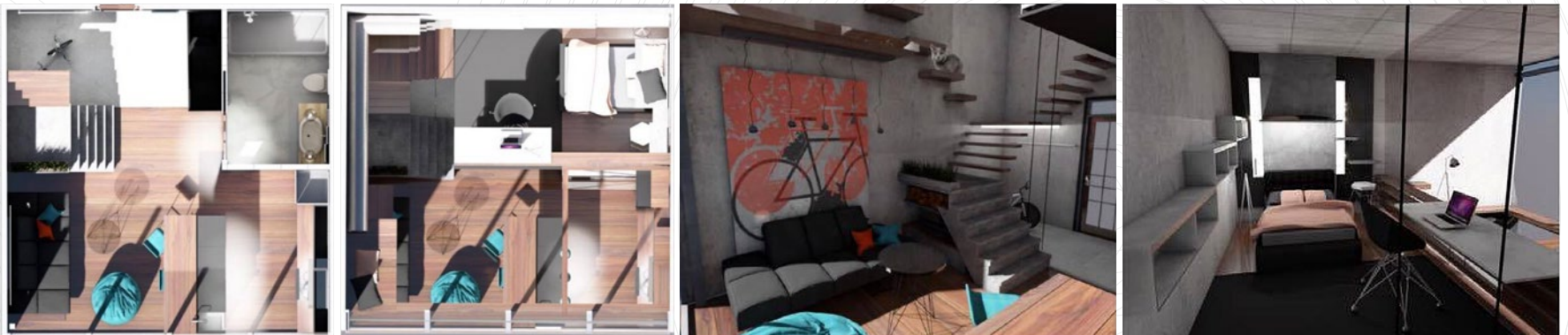
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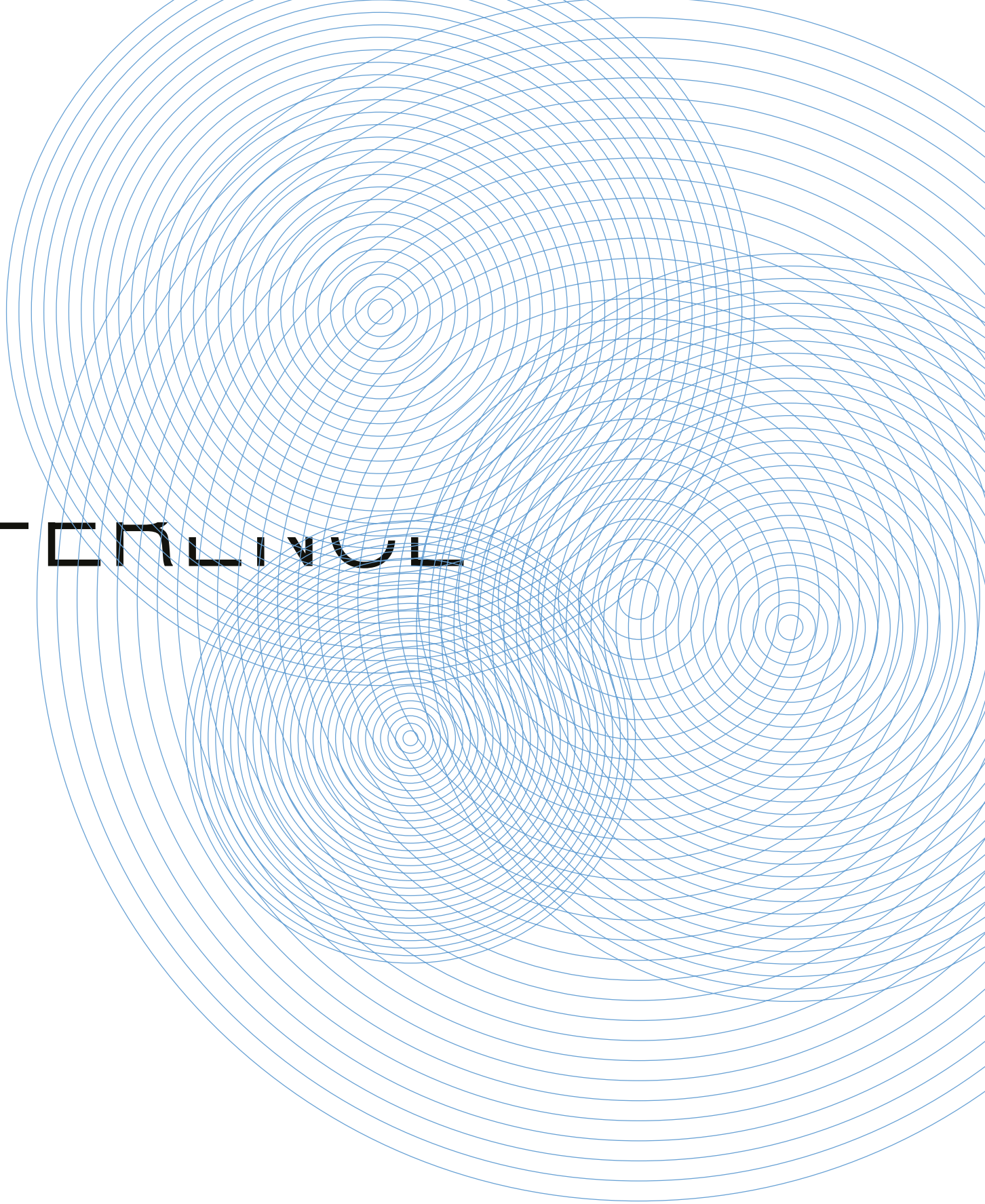
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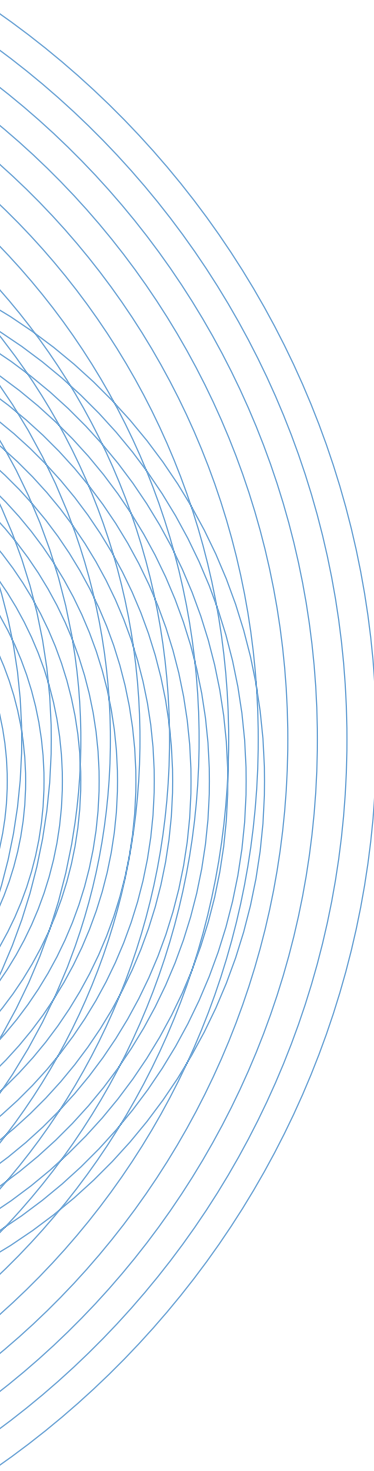
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20 → 21

Restaurant space – selected
issues and original projects

GENERAL





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ABSTRACT

The design of spaces for the sale or provision of food is a task forcing architects to adeptly combine the functional layout of the facility with the interior's arrangement. Proper design of the supply base is essential, because in the case of spaces where food is processed, the planning of technological processes should also be considered. A restaurant is a place with a considerably high turnout of customers, who must somehow be attracted to visit it. To achieve this, owners try to outdo one another with various solutions. Customers always expect new aesthetic and culinary sensations, which is a daunting challenge for architects. The interiors should not be cliché and should also offer an element of surprise. On the other hand, food preparation is extremely important, as these days cooking has become an art in itself. There is a specific fashion for it,

Restaurant space – selected issues and original projects

and in consequence, for healthy food. Sophisticated forms of meals preparation and serving are subjects of refined experiments. It may be stated that the pursuit for innovation in this field has definitely reached restaurants kitchens. The selected examples discussed in the paper present design methods used in the creation of restaurants, as well as the connections between their functionality and aesthetic aspects.

Introduction

Nowadays, it is more and more important where we eat and the way we eat. We attach great importance not only to the quality of the food itself, but also to the environment in which we buy and consume it. This increasing awareness of our own health has resulted in the fact that we are starting to celebrate the very way of consumption, and food sellers are outdoing each other in ideas on how to reach the potential

consumer with the offer. Organic food stores are being built en masse on the map of Polish trade, and customers are more and more willing to buy high-end products. They choose smaller, local shops that are more intimate and closer to home. In this case, the needs turn out to be stronger than the pursuit of savings. Therefore, people are more likely to choose longer-open convenience stores, in a convenient location, offering additional services and a gastronomic offer. Along with the change of habits, there is also a greater need to care for the quality of interior space, including the atmosphere and artistic decor of shops and restaurants. Much more attention is paid to the way of shaping the space in which we not only buy, but most of all consume food. Aesthetic issues and the way of creating the atmosphere of the place are as important for the consumer as the culinary values of the meals served.

Basic issues

Basically, the following types of places serving food can be distinguished among the gastronomic establishments: restaurants, bistros, canteens,

22 → 23

Restaurant space – selected issues and original projects

universal fast food and snack bars, as well as complementary types: cafes, cafeterias, wine bars, pubs and entertainment bars. The trend related to the growing culinary culture is also manifested in the emergence of new forms of catering services. One of the most popular are the so-called “Food tracks”. However, they are not a completely new phenomenon. In Poland, the trend for mobile restaurants appeared a few years ago and now they are no longer just random caravans with questionable aesthetics. They are often real works of art, which in terms of aesthetics are in no way inferior to traditionally understood restaurants. “Restaurants on Wheels” are a consequence of cooking fashion. For many young people for whom culinary art is a great passion, mobile gastronomy opens up wide perspectives. An interesting idea, culinary ambitions and with a bit of luck an attractive location become a space for success. It is a developmental phenomenon in Poland. For comparison, there are about three thousand food trucks operating in France, and currently there are three hundred and fifty mobile restaurants in Poland.

The recent tendency to eat meals outside the home definitely supports the development of various forms of gastronomy. In response to this trend, more and more restaurants with very

different profiles of their activities are being created. On the other hand, other commercial entities are massively expanding their range of services with a gastronomic offer. This happens, for example, in the case of petrol stations and other retail outlets, which allocate a certain part of their space to the bistro area, offering hot and cold drinks and snacks.

The market of typical restaurants is also developing dynamically, which, according to the definition, constitute an economic entity running a gastronomic activity, with separate premises and organisation. Conducting a gastronomic activity may be of the following nature: industrial (gastronomic establishments are involved in the production of processing food raw materials into dishes, drinks, confectionery, etc.), commercial (direct sale of beverages, confectionery and goods to consumers), as well as service (services related to organising consumption on the spot). However, the above-mentioned definition is subject to constant evolution along with the changing needs of the market.¹ There is a lot of competition in the catering industry, but it is a factor (as in any field) that drives the development

¹ Koziorowska B.: Projektowanie technologiczne zakładów gastronomicznych, 1998

of the industry. The constant need for new impressions, exploring new places, experiencing new tastes additionally fuels the inventiveness of restaurateurs and chefs who meet the expectations of consumers. More and more new restaurants are being created on the culinary map, and the owners, in cooperation with designers, compete with ideas for making them more attractive and original solutions, both in terms of culinary and space creation.

One of the forms of such an innovative approach is the much larger opening of the kitchen to the consumption room. There are more and more places where the kitchen is separated from the customer only by a glass partition. Although this phenomenon could be observed on the example of canteens, a novelty is such a solution in cosy, elegant restaurants. This is another proof that the very process of preparing a dish is celebrated and the culinary aspect of the place is emphasised. Another element that strengthens this image is the presence of restaurants where the chefs go out to the consumption room to finish cooking in front of the customer. It is a higher form of contact with the client, but also showing mutual respect. Here cooking goes to the art level. We can similarly classify the emergence of molecular cuisine. This is proof of the development



Noma Restaurant in Copenhagen (photo source: www.dezeen.com, www.noma.dk, www.visitdenmark.pl)

of this area of gastronomy. The form of ordering and serving dishes is also evolving. An example is Japanese sushi cuisine. The individual batches of the dish reach the customer via a specific water “conveyor belt”. This solution shaped the interior design of sushi restaurants and initiated many other spatial solutions in this field.

A very good example illustrating modern trends in the world of gastronomy is the Noma restaurant in Copenhagen, which for several years in a row has been recognised as the best in the world. It is a perfect combination of culinary art and architecture. It is a place where attention to detail is reflected in both the cuisine and interior design. The restaurant, located in the old port warehouse, seems inconspicuous at first glance. The interiors are very subdued, designed with great respect for the existing architectural fabric. Little has been changed. Practically only the necessary restaurant equipment has been added, and the effect is still impressive. Contrary to appearances, this is a well-thought-out concept of the owner who assumed that the dishes would be the most important “equipment” of the restaurant. What seems interesting and unusual is that the kitchen facilities are the centre of the restaurant that is the most ‘designed’. It can be said that it is a culinary academy with a separate place for the consumer. The kitchen space here is nothing like steel kitchens known from other restaurants. In the form in which it exists today, it was not created right away. This is the result of joint thoughts of the entire crew after several years of operation. As a curiosity, it is worth adding that the average waiting time here for a free table is about six months. The

Danish studio Space Copenhagen is responsible for the interior design.

Selected formal and legal issues concerning gastronomic establishments

Even the best designed space in terms of aesthetics cannot survive without a properly planned functional layout. The best examples of this are gastronomic establishments. Regardless of the chosen concept for running a restaurant or bistro, the heart of such a place is always the kitchen with back-up facilities. The changing and evolving trends related to gastronomy are also changing the requirements for the functioning of kitchen facilities. The functional system depends primarily on what is produced, who works in a given place, how much time is spent on a given production and with what devices the tasks are carried out. Health and safety regulations, which significantly determine the size of the rooms, are of great importance. Another crucial issue is the technical possibilities related to the installations, i.e. water, electricity, gas and ventilation. When designing the restaurant’s kitchen facilities, the most significant thing is to understand a few vital principles. One of the most important elements is the location of the kitchen space in relation to the directions of the world. The (hot) kitchen should be located on the north or east side, and the southern part should be used as a consumption room. The functional layout of the kitchen facilities should include, among others the following rooms: kitchen, washing room, waiter’s switch room, vegetable storage, meat storage, meat processing room, vegetable processing and egg sterilisation room, dry goods store space, resource depot, beverage storage, waste storage, packaging store

space, cold stores and freezers, a break room with a hygiene and sanitary facility and a shower cubicle. Each restaurant should have a separate entrance from the outside to the back room intended for staff and the delivery of goods. When planning the functional layout, the division into technological zones should be considered. The most important of these is the dirty and clean dishes relocation system. They are inseparably connected with the food production process, which consists of the following stages: raw material delivery, storage, pre-treatment, proper treatment, thermal treatment and shipping. A particularly important element is the space where the waiter takes the ready meals and returns the dirty plates. These places must be separated. It should be taken into account that where goods lifts are used, two separate cabins must be used. The kitchen must not be accessed through the kitchen. Both rooms should be separated by a passage cabinet intended for putting away washed dishes. A significant element is the introduction of a translational movement when arranging individual rooms. The closer to the consumption room, the “cleaner” rooms should be. The kitchen and the place where meals are served should be designed to be located closest to the customer. Waste stores should be placed in the vicinity of the entrance to the back-up facilities, and in close proximity to them other storage rooms, e.g. for vegetables. Processing rooms for various products should be designed closest to the kitchen, as well as cold stores where perishable products are kept. The kitchen is the most important place in the back of the restaurant. It also covers the largest area. It is worth recalling the principle that in the kitchen raw materials are not peeled or washed, but instead



Restaurant „Młyn Zygmunt” (design: Aleksandra Grzonka, photo: Artur Nyk)

shredded, sliced, processed and heat treated. There should be separate sections in the kitchen (preferably in the form of square cubicles) where various activities are performed. One place is for processing meat, a separate one for processing vegetables, preparing desserts, preparing cold snacks and finally a set of ovens and other devices in which the products are heat treated with a storage space for pots. An important area is also the one intended for washing and storing kitchen utensils. The key element is the staff room, equipped with lockers and a place for eating meals, which under no circumstances should be moved to other rooms of the restaurant’s back-up facilities. The restaurant kitchen equipment also includes a sink and a washbasin. This room should be connected to a bathroom with a shower cabin. Due to various circumstances, it is not always possible to implement the full range of kitchen facilities. There is no single pattern for different catering establishments. The kitchen with back-up facilities in the reception house will look different, where larger areas will be taken up by cold rooms, in which previously prepared meals are stored. In this case, there may be a room for storing products supplied by customers. In a restaurant serving vegetarian dishes, there will be no obligation to provide rooms for storing and processing meat. In such a situation, semi-finished products are used that are only subjected to thermal treatment. The aforementioned food truck will operate on a similar principle. It is an interesting gastronomic phenomenon because it is not a building structure and it is not subject to the same arrangements as the restaurant. However, such an idea should be agreed with the appropriate Sanitary and Epidemiological Station. Of course, in this case, only

ready-made semi-finished products are used. The vegetables must already be washed, and the eggs sterilised. A washbasin and a sink for washing dishes are also necessary.

Design methods and artistic aspects on the example of original projects

The way in which they are programmed, designed and then implemented is of great importance for public facilities. The architecture of the building is the first impulse in the reception of a given space, and the artistic creation of an interior has an impact on the impressions of recipients and users of the space. It is of particular importance in the case of service facilities, the task of which is, among others, a specific temptation, attracting customers. Gastronomic establishments are a good example of such facilities. It is noted that the culinary qualities and the aesthetics of the space are almost equivalent values influencing the consumer’s assessment. This is undoubtedly a consequence of the growing awareness of the recipients of gastronomic spaces. We pay a lot of attention to what we eat, as well as in what interior and in what atmosphere the meal is served. There are known cases of premises with random interior space architecture, where outstanding dishes are offered, and the cuisine is of the highest level. The success of such a place is rather short-lived, because customers are looking not only for a culinary experience, but also for some added value. Interior design is a key element of the marketing strategy in gastronomy. When delicious cuisine goes hand in hand with high-quality architectural and artistic solutions, then the restaurant has a chance to function on the market for many years.

In the realisations presented below, an attempt to create extraordinary places, where the aspect of spatial creation is very important was made.

The first project is a restaurant project called “Młyn Zygmunt” in Łaziec. It is an example of a post-industrial building converted into a restaurant. From the moment of its creation (1945), the mill belonged to the investor’s family, who, for sentimental reasons, wanted to keep the facility and give it a “new life”. Until recently, an old electric mill fulfilled its original function. The facility is located in the Konopiska commune. This is the area where the Krakowsko-Częstochowska Jura [the Polish Jurassic Highland] begins. A characteristic feature of the local, historic buildings is a wall of limestone supplemented with elements of red brick. The limestone walls fit strongly into the picturesque region of the Kraków-Częstochowa Upland, constituting a characteristic aspect of the landscape. This stone became one of the inspirations for the architectural concept of the “Młyn Zygmunt” restaurant. It can be assumed that the specific structure of the building became an inspiration for the creation of interior space. Aiming at linking the external attributes of the object with its interior, a natural stone wall was locally discovered inside. The surface of the exposed wall is not accidental. It was determined by the necessity to perform thermal insulation from the inside of the building. The exposed stone is protected against dusting with impregnation and highlighted to emphasise the essence of this material.

Another material that has significantly influenced the construction of the space concept is wood. The wooden structure of the ceilings and the existing elements of equipment gave the place



Bistro Pivnica. (project.: Aleksandra Grzonka, photo.: Artur Nyk)

an extraordinary character and inspired design solutions. Wood has always been recognised by designers and users as a material that creates a friendly atmosphere in the interior, regardless of whether it is old or new. In the case of old wood, an additional advantage is the fact that its appearance shows the history of the place. This is also the case with the restaurant “Młyn Zygmunt”. Wherever possible, efforts were made to keep the existing wooden elements. This applies not only to the construction, but also to equipment, e.g. flour chutes. In order to emphasise the original elements of the interior, the new equipment does not include stylized elements, but those with a modern image. This type of contrast makes it possible to clearly distinguish newly designed elements from those that show the passage of time. The symbolic aspect of the renovation was the reference to the existing internal wooden buildings. For functional reasons, it was necessary to dismantle some existing elements of the mill’s equipment. These circumstances, however, inspired the next design tasks. In this way, a characteristic mosaic was created, which forms the housing of the elevator shaft and the front of the bar counter. It was created as a result of cutting wooden beams. Wooden tiles create a composition with a contemporary character, and the applied linear illumination emphasises their spatial arrangement.

An important design goal was to create a composition of wooden balls on the wall in the main part of the restaurant. This is the element that attracts the most interest from users. That was the designer’s goal. Considering the function of the facility, it was assumed that customers spend a lot of time waiting for the meal. The design concept assumes that it is the time to observe

the space and analyse individual architectural solutions. Hence the use of a composition that stimulates the user to reflect more deeply and fills the waiting time for a meal in an interesting way.

The mill building and its surroundings also inspire graphic elements, the design of which was part of the architect’s tasks. The vicinity of Łaziec is famous for, among other things, a large number of swallow nests. This fact also applies to the mill building. Several of them were found in the attic during construction. They were relocated to a safe place, and in return, in the attic, white contours of shapes of swallows cut from thin PVC were designed. The swallow is a symbol of happiness, prosperity, freedom, good luck and love. Hence the decision that it is a suitable symbol that can be used as a restaurant logo.

Another example of the original realization of a gastronomic establishment is the interior of the “Pivnica” bistro in Jastrzębie Zdrój. This small space is located in a 60 m² adapted basement of a pre-war building.

The main idea that influenced the implementation of the design concept was the reference to the Moszczenica mine, located in the immediate vicinity. The mine, closed in the 1990s, was the main workplace in this area, and the facility of the downhill shaft was an architectural landmark in the city’s landscape. These circumstances became the pretext for the decision to use the mine facility for the diploma thesis in 2000. This is how the student project was created, in which various aspects related to mining in relation to architectural design were examined. One of the elements analysed at that time was coal. Its resistance

to abrasion, crushing, etc. has been traced. It turned out to be a good material that can be used as a detail in architecture. In a student project, it was used as a wall cladding, and a few years later, previous research on coal was used to finish the wall in the “Pivnica” bistro. The wall covered with carbon tiles is the main architectural accent of the interior. Another important element of this space are graphics using photos of the mine’s buildings. The most interesting are those depicting non-existent, demolished objects, e.g. shaft towers and chimneys. The photos have been magnified and the resulting pixels are highlighted to make them an advantage. The photos have been supplemented with contemporary, fun and humorous graphics. To soften the grey and seemingly sad image, deliberately naive drawings were used, which made an impression created by children. Many other elements related to the theme of the mine were also used in the bistro. There is an authentic clock on the wall, which comes from a non-existent mine hall. Lamps used by miners in helmets were used as lighting. Those, in turn, hanging on the wall, create a composition that aims at breaking the colour of the whole designed interior. Instead of biased images on the walls, descriptions of places and definitions related to the subject of the mine were used. Chained menus have been hung over selected tables, which is supposed to refer to the system of storing the miners’ personal belongings in the chain locker room. To emphasize the atmosphere, terrazzo was made on the floor, i.e. a type of flooring characteristic of such objects. Terrazzo is made in a slightly forgotten technology, but it is a very practical and durable floor. The various stones used to make it create a specific, interesting floor pattern.



Ditta Seria bistro zone
(project.: Aleksandra Grzonka)

26 → 27

Restaurant space – selected issues and original projects

The idea of creating such a space of the interior was a tribute to this once important place for the city and the people who worked there. There are still many mines in Jastrzębie, and thus the city is still considered a mining town.

Another important issue concerning spaces related to gastronomy relates to service facilities for petrol stations. The key aspect in shaping contemporary interiors of this type is their orientation to the growing needs of customers. Definitely, at present it is an extension of the offer of petrol station service facilities with catering services. The genesis of this type of solution is the introduction of fast-food outlets at petrol stations. Surprisingly, statistical research has revealed that these simple snacks are the greatest source of income for fuel stations. Due to this observation, coffee corners with top-class coffee making machines began to appear soon after snacks at the stations. All these undertakings contributed to the positive perception of users and resulted in the birth of new trends and directions for the development of such places.

Newly designed petrol stations are adapted to the implementation of basic gastronomic functions by creating appropriate facilities. A problem arises when decisions are made to expand the gastronomic offer and follow the current trends within the existing point of sale. These activities require adjusting the existing spaces to the applicable sanitary regulations. Due to the fact that usually station service facilities do not have free space, to arrange appropriate back-up facilities there, they are forced to open catering outlets with a limited offer (including the use

of semi-finished products that are only subject to thermal treatment).

Another challenge is related to the identification of a place for consumption in the already functioning space. Usually it is a pair of tables, which, unlike full-length restaurants, are associated with the possibility of a quick stay. Often this space is limited to places intended for eating while standing. However, this is a characteristic feature of places that are associated with frequent and large flow of users. It is assumed that customers do not stay in such places for too long, usually eat their meal quickly and go on their way, freeing up space for subsequent users. It is this accelerated flow that is a characteristic feature of gastronomic spaces in petrol station service facilities. Although in the end, entering the station, you should get the impression that it is more of a bistro than the standard space of a petrol station cash register.

Ditta Seria is a small, non-chain petrol station in the small town of Żdźary near Rawa Mazowiecka, which is characterised by an extensive bistro zone. Hot dogs, casseroles, a simple pizza oven, an Italian ice cream machine are just some of the solutions that give this place a completely different character. An unusual solution is the license to consume alcohol on the spot. Due to all these activities, this place has become an important meeting point for the local community throughout the day and in the evening. While staying in this place, the customer gets the impression that refuelling is a complementary service, something that is done “by the way”. Additional elements that emphasise the performed functions are the adopted architectural and artistic solutions. They support the creation of a user-friendly and user-oriented place.

The opposite of the Ditta Seria petrol station project is the Citronex company in Zgorzelec, which is the largest petrol station of this type in Poland. On the area of 1000 m² there are petrol station cash desks, a full-size general store and a very extensive food and beverage zone. It is a place dedicated to transit traffic, individual customer service and TIR transport. A significant challenge in the organisation of space turned out to be the solution of communication within various functional and traffic zones for very diverse users. In the gastronomic part, there is a place for quick consumption, restaurant tables and a relaxation zone, where you can drink coffee, read the press while sitting in comfortable armchairs. With this type of assumption, it was necessary to design fully professional kitchen facilities. The facility also caters to the youngest customers, preparing a large play area for them, equipped with many multimedia solutions.

Conclusions

Functional planning of a gastronomic establishment with its kitchen facilities is a crucial design aspect conditioned by many spatial and formal as well as legal factors. However, in this area, the artistic aspects related to the architecture of the interior of the restaurant and the creation of its atmosphere seem to be equally important. The image of the premises, its atmosphere significantly influences the first assessment of a potential customer, and it is considered to be the most important. Interior design is therefore a key element of the marketing strategy in gastronomy. On the other hand, the fact in what circumstances the dish is served or the goods are bought also affects the well-being and even health of the user. The multiplicity of conditions,

Citronex food and beverage zone
(project.: Aleksandra Grzonka)



including legal regulations, spatial limitations and the property's own features, have an impact on decisions related to the creation of interior space.

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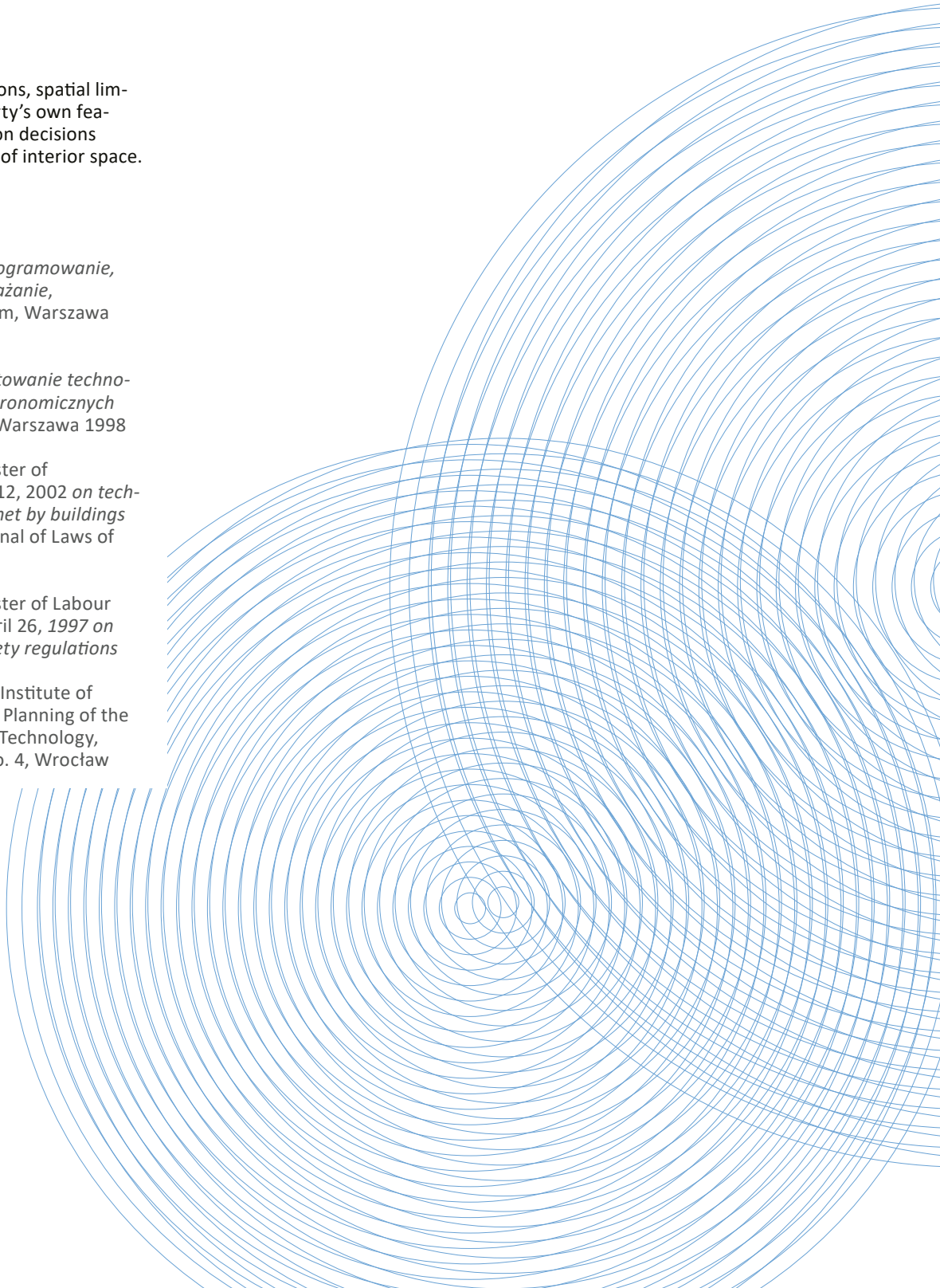
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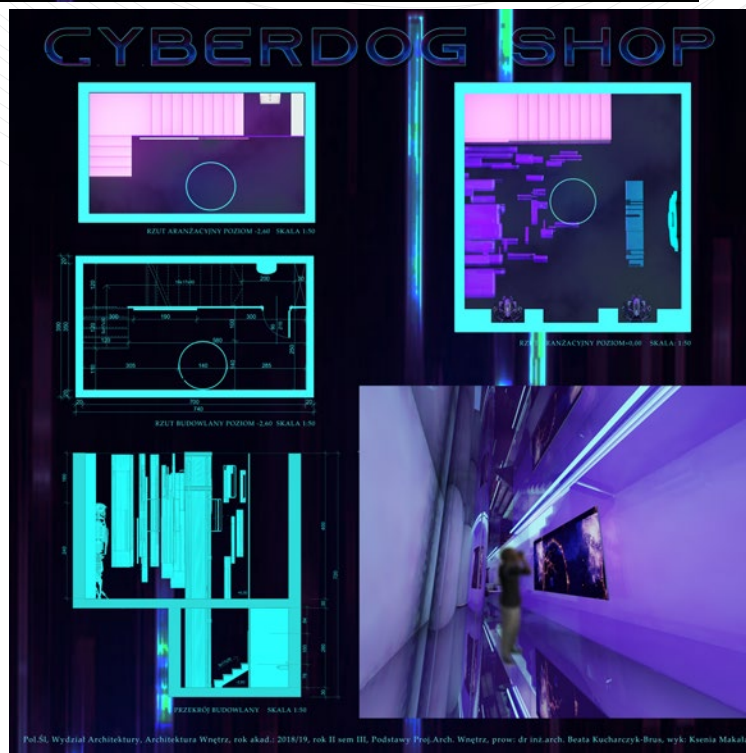
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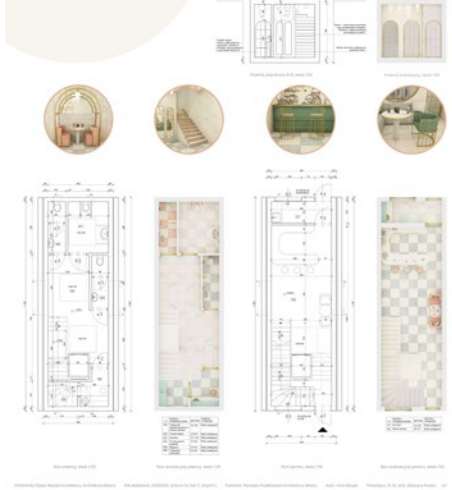
Cyberdog Shop by KSENIA MAKALĄ
Course: Basics of Interior Design 2
Interior Architecture I, semester 3,
academic year 2018/2019



Yamaha Music Shop by DARIA STANEK
Course: Basics of Interior Design 2
Interior Architecture I, semester 3,
academic year 2010/2011

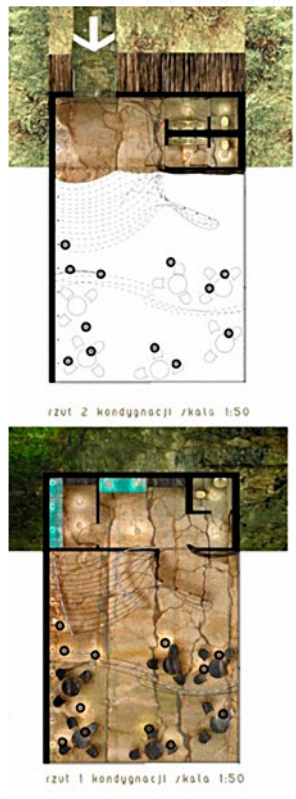
Shake it up!

Projekt placiku shake'ów inspirowany klimatem lat 80', art deco oraz barami w typowym amerykańskim stylu.



←
Shake pump room by ANNA WYŻGÓŁ
Course: Basics of Interior Design 3
Interior Architecture I, semester 4,
academic year 2019/2020

Café on the rocks by DARIA MAJKA
Course: Basics of Interior Design 3
Interior Architecture I, semester 4,
academic year 2009/2010

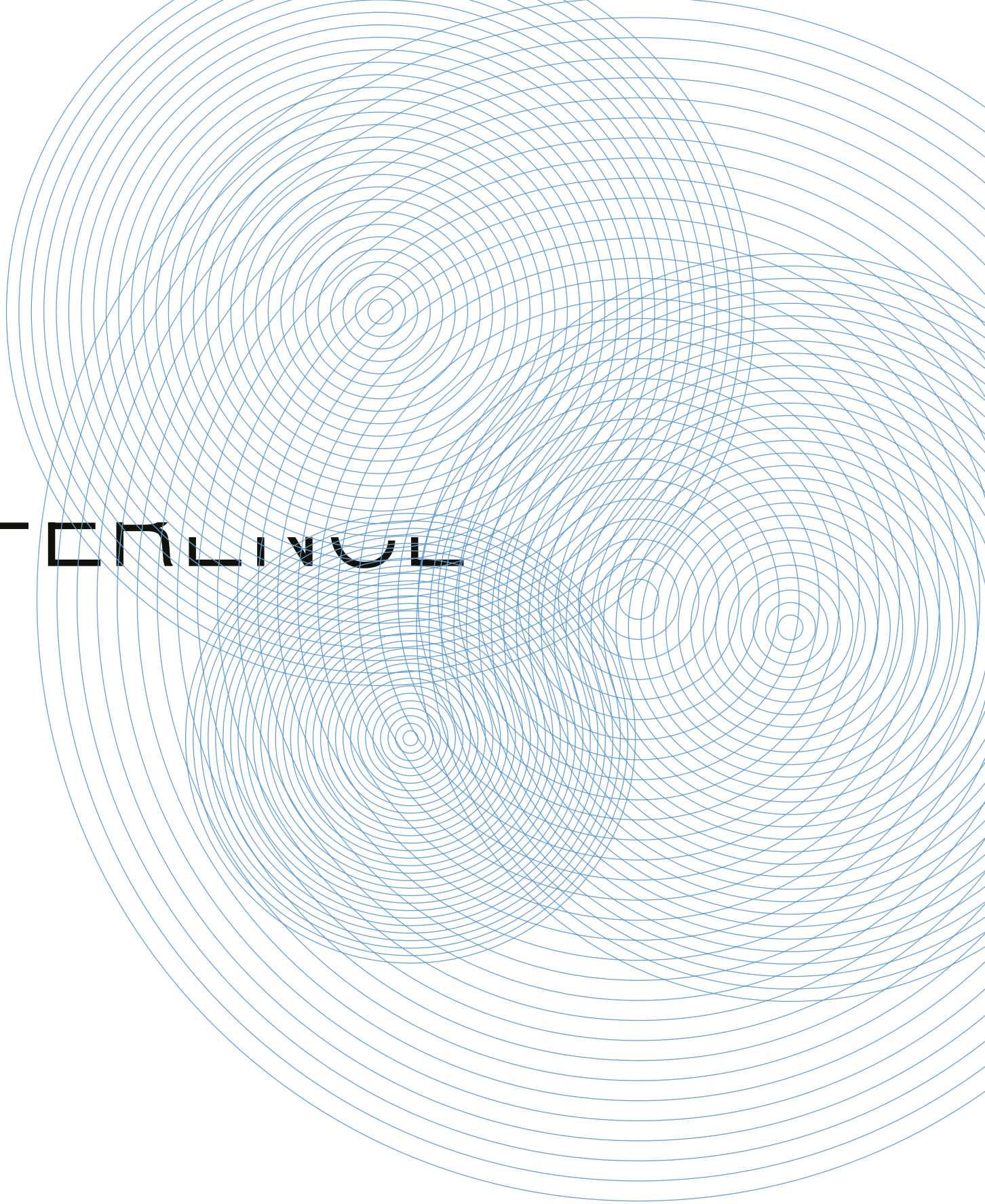


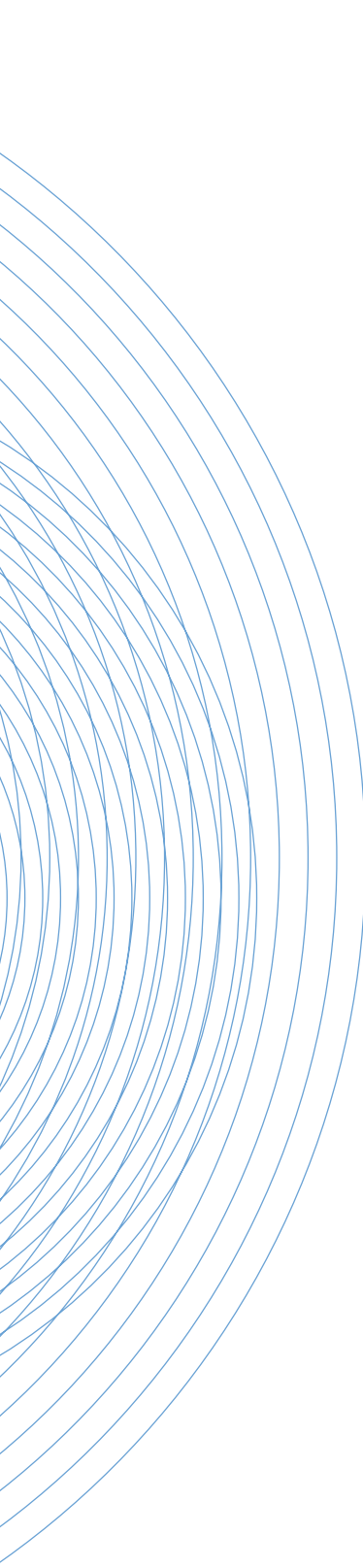
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30 → 31

Transformation of the
interiors – selected issues
concerning the adjustment
of existing interior spaces

GENERAL





Ph.D. Eng. Arch.
**Katarzyna
ROŚŁON**

ABSTRACT

The comprehensive concept of space transformation is regarded as a multi-faceted process, involving the structure, form, nature and climate of the interior. The discussed metamorphoses are changes that involve one of the stages of the transformation process. The issue of the variability of space constitutes a topic that is often undertaken nowadays in research and design work. Such an approach refers to changes in the lifestyle of modern people, their increased daily activity and mobility. This leads to the emergence of a new quality of the interior, offering different functions to present users. The space of interiors subjected to transformation becomes a reflection of social changes and new technical and technological possibilities. The growing awareness of the quality of space enables a considerably wider range of analyses of interiors, in terms of their functions and spatial arrangement. The

Transformation of the interiors – selected issues concerning the adjustment of existing interior spaces

observations and analyses contained in the paper are based on the author's own architectural practice and on conceptual projects of the students of Interior Design. The implemented and conceptual designs aspiring to offer model solutions were analysed, taking into consideration the factors that condition and influence creative transformation – metamorphosis of space. The conducted design activities have an artistic- research character and have become an opportunity for formulating conclusions concerning the degree of interference into existing interiors and for designating directions for their further transformations.

Creative transformations are metamorphoses of the interiors of existing architectural objects, which continue to function, however, stopped meeting the accepted norms and standards years ago. The aim is to transform the existing state in a way that meets the needs of users, providing conditions

for harmonious development, at the same time increasing the quality of the used interior space. Applying a modern approach by means of expression and modern technologies, we can create a new space, decidedly better functioning, and fully utilized, of a new character and a significantly different function. All these actions are of a modifying nature, they relate to the initial state – the existing one, whose own characteristics are to be changed. However, it is a long-term process, the end result of which does not have to be the final result of the proposed changes. A repurposed interior may pass through a transitional stage in order to obtain the appropriate final effect, its change being so impermanent that another modification is possible or even necessary, even after a relatively short time of use. Such a course of action in relation to the interior of an architectural object is influenced by a number of circumstances, which undoubtedly include the economic, social and personal preferences of the owner or investor, which inhibit or support activities in this area. The shape of the modified interior space is also affected by the designer himself, who

32 → 33

Transformation of the interiors – selected issues concerning the adjustment of existing interior spaces

is directly related to the entire design process and is a person who has a decisive voice in the shape of the transformed space. This issue concerns both projects to be implemented and conceptual designs. Nevertheless, in the second case it is not necessary to refer directly to the economic conditions, which at this point do not affect the final shape of the designed interior. However, it should be remembered that the design process itself can take a long time. The variables associated with it, can significantly influence the shape of the designed space.

In design activities related to architecture, there is the most vivid human aspiration to create by transforming, such that your creation and modification of a space would provide optimal living conditions. The design process is currently based on a series of previous studies about functional and spatial solutions. It also refers to the interior design itself, where goals are outlined during the appropriate programming process, and a list of requirements and limitations is prepared. Programming is carried out by collecting, developing, analysing and verifying information necessary to understand and solve a design problem. Creative activities in the field of interior space architecture are usually of a modificatory – intervention nature. This is due to the fact that the designed space is closest to us and this is where the necessity to transform the already existing internal composition most often begins. The architectural and construction structure is usually characterized by specific individual features, which are transformed into a new compositional system in the functional and spatial scope as well as in the formal and aesthetic area. The scope of these transformations, i.e. the degree of modifying intervention,

is conditioned by factors occurring in the design process and during the project implementation. The final effect of the project activities is supervised by the designer, who is responsible for the final nature of the project's aims. In the processes of changes that take place within the designed architectural space of the interior, we also encounter the aging process of the tissues which leads to their complete degradation, and ultimately to the collapse of the architectural structure. The designer should provide timeless solutions in his or her design assumption, so that the final effect obtained would offer maximum opportunities to use the potential of the newly created function in a previously degraded interior.

In order to meet today's requirements, the practice of interior design had to undergo radical changes over the past fifty years. It used to be a field for talented, creative amateurs. Currently, it is a separate profession, requiring from its practitioners technical knowledge combined with artistic talents and the ability to manage a project at every stage of implementation. Nowadays, we are witnessing the emergence of a designer-architect, well-educated, who can make maximum use of space, introduce modern materials and finishes, and at the same time discreetly incorporate new, necessary technological solutions.

An interior designer who begins creative work on any design task is influenced by many objective factors, which act independently of him or her, due to the fact that this work is performed in a specific geographic, historical, cultural and social environment. On the one hand, these factors determine the possibility of completion and reception of the results of the designer's

creativity by the environment and at the same time shape his or her creative personality. Accordingly, there are factors that influence the creative activities of an interior designer. They define the essence of the nature of its activities. In the process of transforming architectural interiors, the following conditions should be met:

- determination of the purpose and need to undertake the transformation process and what is related to it: determining the user profile
- determination of the subject of this process, indication of the object – a given set of interiors for the transformation process, and with it a functional programme, within which mutual relations and connections, spatial limitations, external factors – environmental, climatic and location, and internal factors – will be defined – technical infrastructure with which the facility is or will be equipped.
- identification of the creator of this process – interior architect – coordinator of the design and implementation process
- indication of a set of psychological, sociological, economic and legal factors related to the construction process
- accomplishment of the implementation process, i.e. the process of transforming the ideas and perceptions of the creator into the actual existing spatial shape of the work – architectural interior

The goal and need of the intended adaptation and modification process is usually formulated in the form of functional and program assumptions, the guidelines of which become the basis for the initiation of the design process by an interior architect. The subject of this process – the architectural interior – the object to be

adapted through modification has its own architectural construction with specific characteristics: cultural, historical or physical, as well as structural. An interior designer is a creator with specific features that have been developed in their multi-year and multi-faceted process of artistic development. The implementation process is a combination of the conditions of the designed object and the conditions resulting from the creative activities of the interior designer. The entirety of the design assumptions affects the final result of the entire investment process, i.e. the spatial and aesthetic shape of the architectural interior. This influence is manifested by the impact of factors limiting the architect's constructive creativity, and their mutual interactions, which also determine the direction of possible design solutions.

Apart from human factors, there are also other creative factors in the processes of adaptation and modification. These include primarily:

- functional and programme assumptions
 - individual characteristics of architectural and construction structures
 - the designer's creative personality traits
 - features of the performance process accompanying the creation of the work
- These factors determine the scope of creative activities by:
- defining the goal and scope of the creative task,
 - determining the framework and spatial possibilities of the architectural interior concept
 - the method of shaping the designed interior in terms of functional and spatial as well as formal and aesthetic criteria

—— the way of implementing the project, and thus developing a good system of cooperation between the investor, designer and contractor of the investment

The influence of the above-mentioned factors not only manifests itself in the spatial solutions of the works that are the subject of creation, but also determines the entire creative process of an interior architect, defining the framework for his or her creative possibilities, the scope of modifications and the diversified final effect of individual works by the same author. The percentage share of individual factors in the creation process of the work affecting the final result and its shape is ultimately determined by the proportion of their participation in it.

The degree of the interior designer's intervention in the adapted architectural and construction structure is a complex matter. Its final shape is ultimately influenced by many external factors and internal conditions. In the practice of an interior designer, one can observe the process of changes that accompanies his or her activity is closely related to the aforementioned aspects. To illustrate the creative process, one should analyse the realization of a project of one creator or project team. The end result may be different, and even ought to be each time, as individual factors may, to a varying degree and intensity, appear within each project situation. By analysing individual factors, we can see their mutual relations taking place within the design and implementation activities.

The functional and programme assumptions define the way of using the adapted object and, at the same time, the degree of modification of its

architectural and construction structure. Typical assumptions are usually dictated by the investor – user and at the same time they are to meet his or her needs and expectations. When assuming an application programme, one should take into account the adaptive possibilities of the modified object and the implementation possibilities, considering the individual features of the object and the creative personality of the designer – interior architect. The extent of the interior architect's intervention in the functional and programme assumptions is closely related to the stage at which the designer has the opportunity to intervene in this process. Often, the functional and spatial layout in interior design is somewhat imposed by the design of the overall architectural structure. Functional and programme modifications in the newly created facility are associated with an increase in investment implementation costs. However, if one is to prevent compromising dual functionality within a single space, an attempt should be made to remedy the spatial situation, and an analysis of assumptions should be the starting point in the design process.

All projects in the field of interior design are aimed at modifying an existing object. The modification may concern the functional and spatial arrangement and, at the same time, its formal and aesthetic composition. In each case, it concerns specific existing cultural, historical, semantic, physical, construction features, etc. All this is subject to the investor-user requirements on the one hand and the possibilities of their implementation in the adapted facility on the other. The individual features of an architectural and construction object will influence the adaptive situation of the object

to a different degree. They can be an element that determines the degree of modifying intervention or they can remain indifferent – thus not limiting the creative possibilities. It is worth giving an example here of the adaptation of historic buildings, for which the set of individual features play a very important role such that the design and implementation process subordinate to them. When an object with a negligible cultural and spatial value is subjected to adaptation, the factor of individual features has a negligible impact on the design and implementation process.

The creative personality traits of an architect – interior designer have a significant impact on the spatial shape of works in the creative process. The creative personality is shaped individually and is a complex process influenced by personal, social and psychological factors. These elements affect the entire artistic personality of the artist. They are closely related to the method of project work and the methods of its implementation. The most important of them are:

- inborn predispositions, decisions about interests and choice of one's life path the process of general and artistic education
- self-improvement process – as a continuation of studies, constantly increasing the level of one's own creativity
- artistic experience acquired while implementing one's own creative assumptions
- awareness of his or her role and place of implementation of creative goals
- awareness of the relationship between one's own creativity and the global development of the practiced artistic discipline

———— awareness of current trends in the practiced field of creative activity and its interaction with related disciplines

———— awareness of innovative technological solutions, their development and impact on the shape of the created space

———— awareness of local conditions occurring in a given environment for specific creative activities – their implementation possibilities, local aesthetic criteria, etc.; one's own attitude towards them – their acceptability or unacceptability

It can be assumed that the effectiveness of the creative activity of an interior designer depends largely on the above-mentioned conditions.

The implementation process of interior design work is a multi-directional process. It combines at the same time the creative element – design – constructive creation and the implementation element – factors that make up the possibility of creating the work, i.e. industry specifications, construction and workmanship codes. By analysing the whole, a model can be created – an ideal solution for the execution process. Its shape is directly influenced by all the conditions mentioned earlier in this study. Its impact can be positive, inspiring interior architects, pointing to material and workmanship possibilities, suggesting methods of innovative spatial solutions, encouraging them to search for optimal design solutions in terms of functional, spatial, formal and aesthetic aspects. However, the limitations of creating interior design projects do have a discouraging effect on the designer, leading to situations in which an interior designer must become a craftsman.

The presented project is an original attempt to present the design possibilities of an adaptive and modifying character of the space of an architectural interior, indicating the degree of intervention in the existing spatial situation. It should be mentioned that the presented project is a case where the existing architectural and construction structure was comprised of degraded tissue rebuilt many times for various utilities and functions. Thus, the scope of intervention in its structure was very large, as the factor of personal and creative construction was of dominant importance.

Adaptation of existing interiors – their transformation to new functions is a process taking place on several parallel planes. This pertains to far-reaching relationships between them and the interaction of many components. Transformation is a makeover, transition, conversion, metamorphosis, and change of form – including shape and appearance or structure. The transformations make the space multi-dimensional, often surprising, it can be shaped and used in various ways – used and perceived in different ways. The subject of transforming existing interiors to fulfil new functions is often mentioned in conceptual and semester theses and diploma theses. Students take on the role of designers who are responsible for the final shape of the interior that is undergoing transformation. This is their pursuit for functional solutions within a given project task. In the design, they create the most optimal spatial solution that visibly affects the interior structure. The user profile and functional programme that have a significant impact on the proposed design changes are determined. Design concepts presented in student works illustrate a different

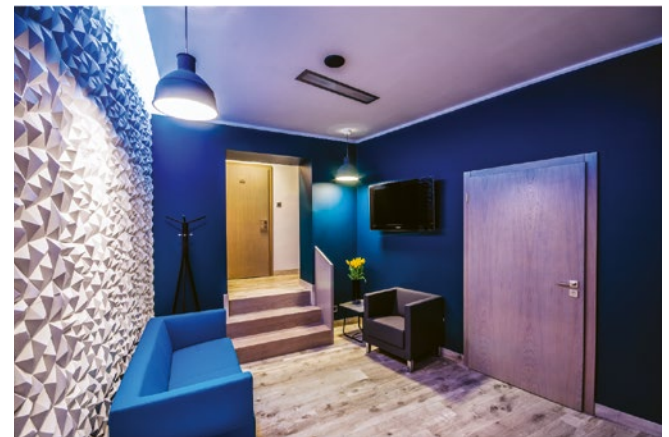
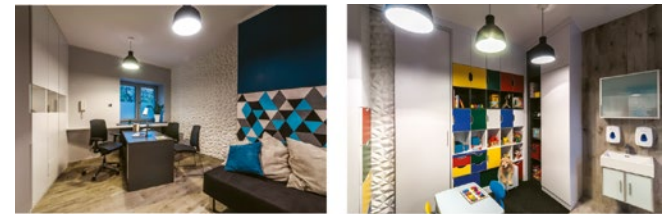
degree of intervention in the structure of the object, both in terms of functionality and composition. Students and graduates have an influence on the choice of the topic of developing a project task carried out as part of the semester or diploma work. Often these are topics close to their individual interests. Such is not the case when implementing a real design study. The designer's task is to prepare reliable design documentation that will enable the project to be carried out on a formal level, as it relates to obtaining various permits, in compliance with legal norms and on a compositional and artistic level, allowing the freedom to create the design intention.

Based on the search for the direction of changes taking place within the structure of the designed interior, the scope of interference in the designed space is determined. It depends directly on the creative possibilities, which depend on the creative personality of the designer or student in conceptual works in the field of interior design. Each creative situation initiates the process of interior design on the real plane and on the research and conceptual plane. The changes taking place during the transformation process within a given architectural interior are the result of previous analyses and correspond to contemporary design standards and investors' expectations. The available technologies allow for unlimited design activities, indicating the commitment of the designer and the awareness of the recipient – their user. Each change has an effect. Even if we minimally interfere with the spatial composition of the interior, it can significantly affect its shape.

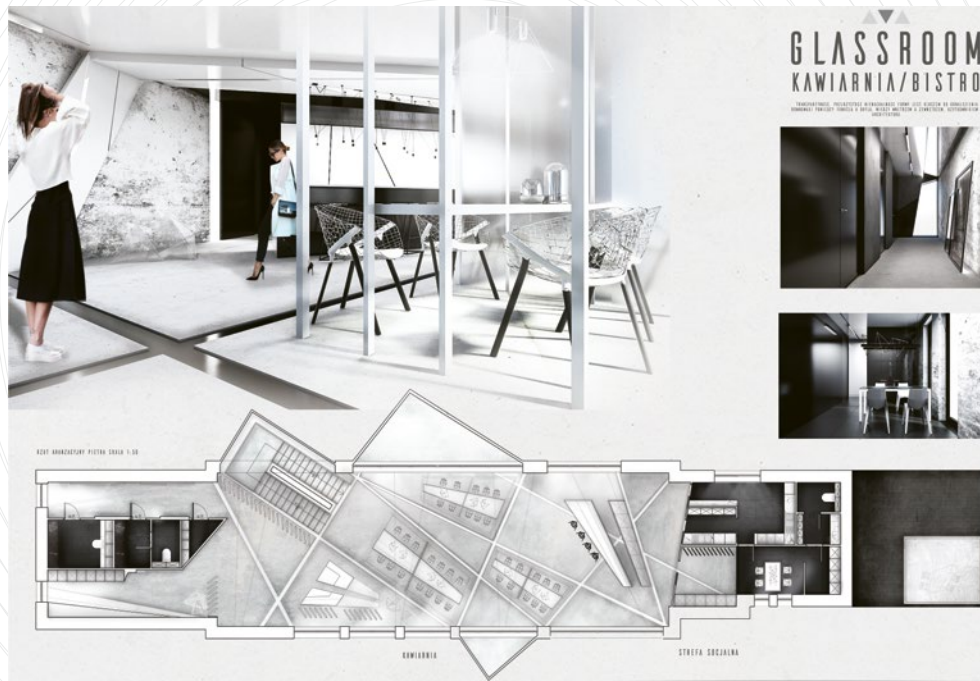
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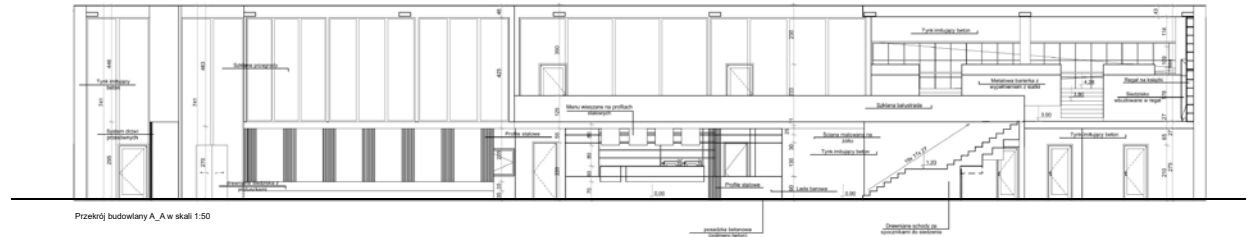


Glassroom by MAGDALENA
ŁUSZCZKIEWICZ
Course: Basics of Interior
Architecture Design 4
Interior Architecture I, semester 5,
academic year 2015/2016



Student BOX by PATRYCJA
BERESKA,
Course: Bachelor's Project
Interior Architecture I,
semester 6, academic year
2019/2020

Student BOX by PATRYCJA BERESKA,
Course: Bachelor's Project
Interior Architecture I, semester 6,
academic year 2019/2020

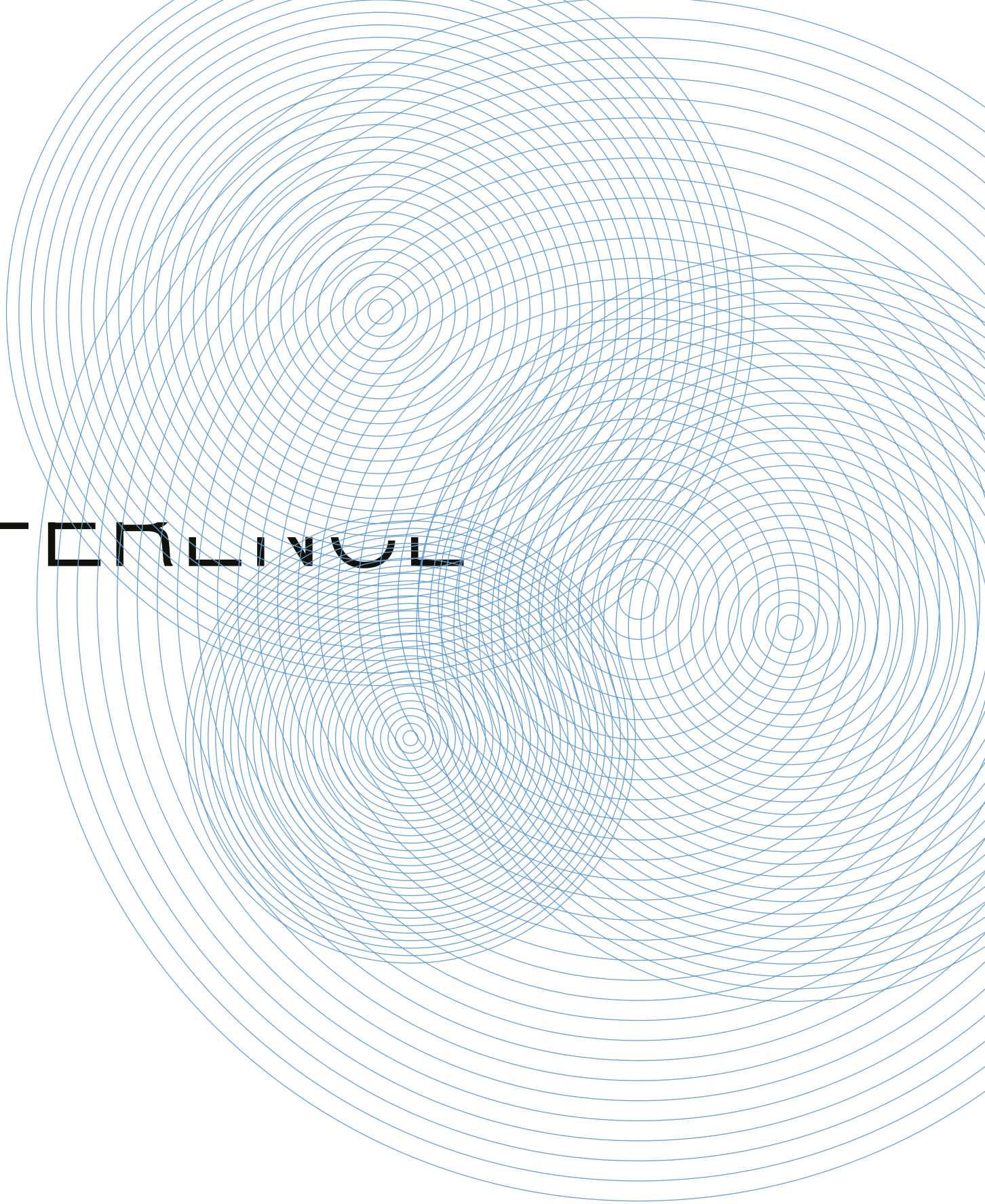


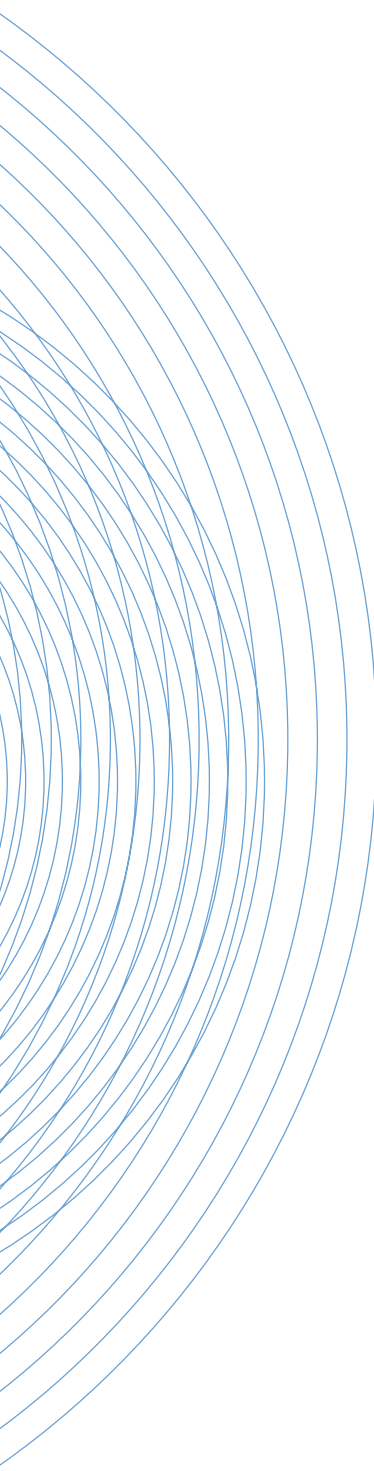
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38 → 39

Contexts of
architectural design

GENERAL





Contexts of architectural design

Professor
**Jerzy
STILLER**

ABSTRACT

Each creative activity, irrespective of its field, is burdened with limitations. In this respect, architectural design no different. The limitations, stemming from various factors and their impacts, are called *contexts*, as they enable a better understanding of the scale of the design problem. The contexts of design, or, conversely, design in contexts, referring to the Latin etymology of the word: “contexus” denote all the phenomena that determine creative activity. They are of a spiritual and material nature and are manifested in the following way: “the Vitruvian” imperative of the search for beauty and the technology subordinated to beauty, functionality and usability, comprehension of the historical and cultural map of the place, awareness of interminable works of architecture, psychological prerequisites of the architect, and, acceptance of the fact that there is no absolute truth. For such simple reasons, there are also no universal

approaches to the limitations. The life and creative activity should follow the Greek maxim: “Nothing to Excess”, which is a very adequate recapitulation of any deliberation about the contexts of design.

From the point of view of the design routine, the topic presented in this way appears to be a purely practical area. If it is true that design is about posing and solving problems, then in this case the matter is, or actually seems to be, simple and obvious. I have used the expression “seems”, because the problem of the design context, just like the etymology of the word itself is not so simple and obvious. “Context” derives from the Latin word “contexus” meaning connection, connectivity and dependence. According to the Polish meaning of the word, it is also “a set of coexisting factors related to something” if we try to look at the matter in this way, all considerations regarding this

subject are not only a look at the practical aspect of design, but in fact become reflections on the essence of architecture. The problem of context formulated in this way becomes ambiguous, multi-faceted and eludes simple diagnoses. Context in the case of architecture, as in life, can have many meanings. Some of them are simple and obvious, others difficult to clearly verbalize, which does not mean that they are not instinctively perceivable. The Vitruvian principle that architecture must be as beautiful as it is useful, extends the area of possible connotations and pursuits. The fundamental question about the nature of beauty still concerns creators and philosophers, and despite the passage of time, this issue still does not seem to be fully defined. Leonardo da Vinci placed architecture in the area of liberal arts. Although over 600 years have passed since then, nothing has changed in this matter. As the old saying goes, the thing that changes in life is reality, but rules do not. The realities we live in are obviously different from Leonardo’s time, but does that mean that the basic principles which govern our lives have changed? I sincerely doubt it. By breaking the rules or

bending them to our whims and fancies, we almost always justify our actions according to the changing realities of life. In the field of architecture, it becomes very clear. One outstanding contemporary architect began his lecture to his students with the following words... “Gentlemen, we are artists, let’s finally start thinking accordingly...”.

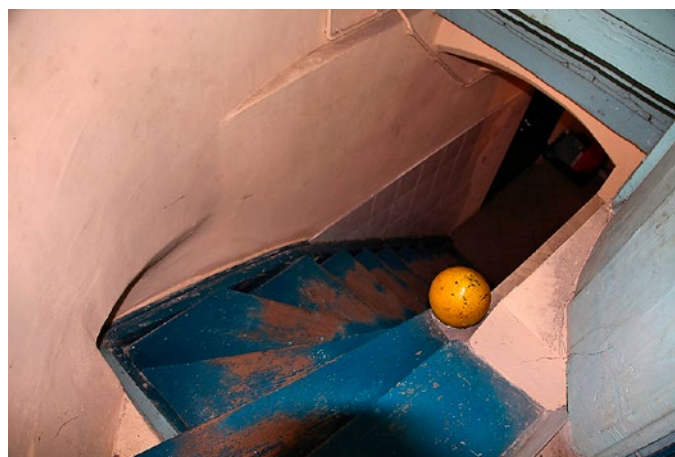
Is art as an axiom of design the context of this profession? Of course it is, because it has always been. People involved in design were not typically professional architects in the modern sense. They were artists: Brunelleschi, Alberti, Michelangelo, Leonardo da Vinci, as well as Le Corbusier and Frank Lloyd Wright, to name the most important ones. In my opinion, the context of art is fundamental for architecture, although it is a bit neglected today. Of course, the problem of treating architecture as art does not necessarily mean seeking pure beauty. It is not so obvious. Nevertheless, it is worth looking at this problem from the point of view of Vitruvius’ theory. Nowadays, the term “useful” is often replaced with the term “rational”, however that doesn’t change much.

If we look at these two basic axioms of Vitruvian theory from the perspective of the passage of time, it turns out that the course of time has a great influence on the utilitarian (functional) side of architectural objects. In many cases it is a set of archaic solutions that do not exist today. The beauty of the work remains. Perhaps the pursuit of it leads to irrational solutions, devoid of any practical sense. What should be emphasized, then, is that art outside of a limited range of activities is fundamentally impractical. This can be seen in many works of architecture, which despite the passage of years continue to delight. However, there are cases that may surprise and which we cannot predict in any way. During my most recent trip with a camera (for over 30 years, I have been photographing Wielkopolska manors and palaces), I ended up in a small manor house in Rzetnia near Kępno. The small building was built at the beginning of the 20th century and is not a particularly outstanding work of art. It is not an especially large house – property of the owners. The single-storey building has a rare circular staircase that actually leads to

the attic. What is worth mentioning is below them in the staircase leading to the basement. The stairs, repeating a circular layout, were decorated with a concrete ball covered with stucco at the level of the basement.

There is no rationale for its presence here. It is a purely aesthetic element – a manifestation of the needs of the architect and the client. What role does such a ball actually play? Contrary to appearances, it is not easy to define. It is certainly not practically necessary in any way. Is it a manifestation of looking for something that could be called “beauty”? There is no unequivocal answer. And that’s fine. Perhaps what I call the search for beauty is designing solutions that cannot be easily defined. They are an aesthetic puzzle. The concrete ball shown in the photo plays this role. Today, most likely, the implementation of such an extravagant idea would probably not be possible. It generates costs, being in complete contradiction to the pragmatic approach to architecture. Why deal with a concrete ball that serves no purpose – it is not even visible to people entering the building. It’s fine without it too. But is it really so? Is the search for beauty, no matter what we understand by it, really a senseless, irrational game? Personally, I do not share this opinion. Today, however, the problem of beauty has been pushed into the shadows by technology, another important context of design. It is wrong to think that technology has only appeared in architecture in recent decades. This is clearly not true. When Brunelleschi designed and built his famous dome on the Florentine cathedral, technology was one of the core elements of his design. Contemporary analysis of this extraordinary building arouses admiration for the inventiveness and technological

A concrete ball in the manor in Rzetnia



perfection of this work. What is noteworthy, however, is the way technology has been subordinated to beauty. People viewing the dome today admire its beauty, having no idea about the technological perfection of this work. These days, when building such a structure, we would probably use a different technology. What's the conclusion? Technology changes constantly, as the realities of our lives change. Beauty remains timeless in its essence. Nowadays, fascinated by technology, we say that architecture must be energy-efficient, ecological, passive and God knows what else. Nevertheless, I never hear that it should be beautiful. Technology is physically manageable, beauty as a non-verbal phenomenon requires talent and sensitivity. In this "context" the words of Wright sound interesting, as he used to say that an architect cannot be created, you cannot be taught the skills; one needs to be born with them. Of course, the modern use of technology does not have to mean and does not mean abandoning the thought of beauty. We must remember that beauty as a phenomenon is difficult to define unequivocally. What is beautiful for one person does not have to be so for another. Nevertheless, in the field of architecture, one can try to define the basic axioms that determine the beauty of a work. This was done some time ago. The rules were formulated during the Renaissance but are still valid in my opinion. To my mind, the danger lies in a different contemporary "context" of architecture. It is called temporariness. We live in a world of short-lived items. The need for technological innovations and the economic justification of producing more and more new objects make us produce cheap and low-quality things (a wise man once said that mass production inevitably leads to

trash). Unfortunately, this approach is also starting to be noticeable in architecture. We build fast and cheap in terms of materials, often leading to an unsightly result. After all, a building that wears out quickly technologically can be demolished and replaced by a new one. Struggling with beauty in such a situation seems like an unnecessary waste of time. However, the culprit of this situation is not only technology, but behind everything is another architectural context, that being the ubiquitous economy. It is the economy that forces the simplification of architecture solely to the extent of technological correctness and economic profitability. I wonder what Brunelleschi would have said if he had been ordered to design a temporary dome over the cathedral.

Architecture, like art, must be timeless, it must last and be a testimony to the human condition. Its value is non-verbal because it is felt in a perspective much longer than human life. Perhaps the spectre of profitability should be forgotten so that there is a chance to return to normal. Of course, the issue is not that simple, but that does not mean that it is impossible. Art, technology, and economics are among the contexts of architecture or design that are not always noticeable by normal consumers of construction activities. When asked about the design context, the field context most often comes to mind. Architecture in its material being cannot exist in a vacuum. Peter Zumthor said architecture is corporeal and the body is physical. Only such architecture is of interest to him. Thus, the terrain conditions are naturally an important design context, but also in this area there are more problems than it may seem. The field context is not only the surroundings of the designed facility, but also cultural, sociological

and historical conditions related to the place where the facility is to be erected. The Romans used the term "genius loci" to describe this problem. Everyone knows more or less what the "spirit of the place" is, but how to define and measure it? Here the issue is not so simple. It requires sensitivity and, above all, talent. What is important in this aspect lies outside the visible area. Saint Thomas used to say "the truth lies beyond the visible image of things." The truth about architecture lies beyond form, structure and function, as was said by Ludwig Mies van der Rohe. This is quite an interesting thesis for a modernist and technological perfectionist. How does design practice relate to this? The question is how the new architectural structure should fit into the existing terrain context. Should it be a bold contrast as the Greeks used to do, and testify to the genius of man, or be neutral, not to say imperceptible, as some supporters of "organic" architecture would like. The creator of this term, Frank Lloyd Wright, never fully defined what it should be. His architecture has always been perfectly inscribed in the area and has never been unnoticeable. His understanding of the word "organic" was specific and certainly debatable, but noteworthy. His buildings (especially houses) based on triangular meshes, and sometimes even on a triangular projection, fit into the terrain in an extremely interesting way, even though the triangle is a very spatially aggressive figure. Wright believed that the triangle is a natural structure in space because it has its counterparts in the crystal structure. You may disagree with this, but his projects confirm that there is something to it. Can architecture exist without the field context? Certainly not in its physical bodily structure. Regardless of whether we place the object in a rural, urban or desert

environment, the context is always there. There is no escaping it. But the interesting question may be whether architecture can exist without its local context. Each architectural project lives on two planes – design record and physical implementation. The first is a drawing to reflect the architect's concept, the second is its materialisation. While the creator is fully responsible for the design record, this is not the case for its physical implementation. During the Renaissance breakthrough, the rediscovery of geometry and the principles of outlining perspective gave artists completely new possibilities in terms of describing the world around them. Some historians believe it was a turning point equal to the discovery of America. Perspective is a drawing record of space, an extraordinary reflection of the artist's artistic sensitivity. The fascination was so great that some theoreticians, such as Vasari, claimed that the essence of architectural creativity is a drawing record of space, as it is the only real representation of the artist's concept. Material implementation, tainted with compromises, will always be defective in this case. The compromises Vasari had in mind were and are of course of different origins – from structural, to functional to economic. These last two seem to be the most important nowadays. Leonardo da Vinci never completed a building. However, he left behind a set of extremely interesting architectural designs. It is a record of the pursuit of an ideal form without specific spatial conditions. Today we consider Leonardo equally as an artist, inventor and architect. In the same field of activity, an extraordinary work was written and published by Androuet du Cerceau, an architect of the late French Renaissance. He published the work "Les livres d, architecture" in Orleans in

1549. Apart from an interesting treatise on perspective, it contains a set of theoretical architectural projects of enormous impact. None of the buildings located there has a specific local address. Due to a whim of fate, none of the buildings completed by him have survived to our times. Only a drawing record of the projects remains. Du Cerceau appears to have been an outstanding architect, even though we have no chance to admire any completed work. It is difficult to become a prominent writer based solely on the concepts of the novel, and an outstanding painter or sculptor based on ideas for painting or sculpture. Architecture seems to have a chance for a second, slightly different life here. If Vasari were to be believed, this second life is the most important. Modern times are not that different in this respect. Mackay Hugh Baillie Scott's "Houses and Gardens" from around 1906 contains mostly design concepts for architecture that have never been implemented. Moreover, it seems that the projects were developed from the very beginning as theoretical solutions. Scott has, of course, completed a number of building projects, but his work is still being reprinted as teaching material for students. Scott's concepts, despite theoretical conditions, are formally very real. Mendelsohn's architectural drawing concepts are more of a search for a form than a specific solution to an architectural problem. For many people, these drawings are more impressive today than the materializations of their author's construction projects. It also happens that the design drawings are the only preserved record of the completed design concept, while the implementations were torn down a long time ago due to economic pressures. This is the case with many of Wright's designs. Until recently, Mies

van der Rohe's famous Barcelona Pavilion was a completely unique case in this regard. Demolished after the end of the world exhibition, it became an icon of architecture and for nearly 50 years it existed only in the form of a dozen or so black and white photographs commissioned by the architect. It has been recently recreated in its original place, thanks to which the icon returned to the material world. There are many examples. Of course, this does not mean that architectural designs should not be implemented; this is obviously nonsense. It only means that designing, like painting pictures, should be a continuous process. The materialization, as well as the sale of a painted picture, is one of the elements of practicing this profession. Creativity requires constant practice. And the design record is not only a set of guidelines on how to build an object, it is a record of the creator's temperament, sensitivity and talent. In this aspect, it is as important as the completed object. And what about the functional context? It is said that nothing changes as quickly as function, but in the case of architecture, which is the only thing that serves people in both body and soul, functionality must be taken into account. Personally, I inversely call this area of determinants the technology of architecture. Its perception is quite interesting. When the architecture technology is properly organised and thought out, no one notices it. It just creates a space that serves life well. However, when a project is poorly implemented, this type of situation becomes frustrating. It is a bit like our attitude towards health. When our health is good, no one thinks twice about it. However, when we get sick, only then do we start to appreciate the state when we were healthy. Well, that's the nature of man. This leads

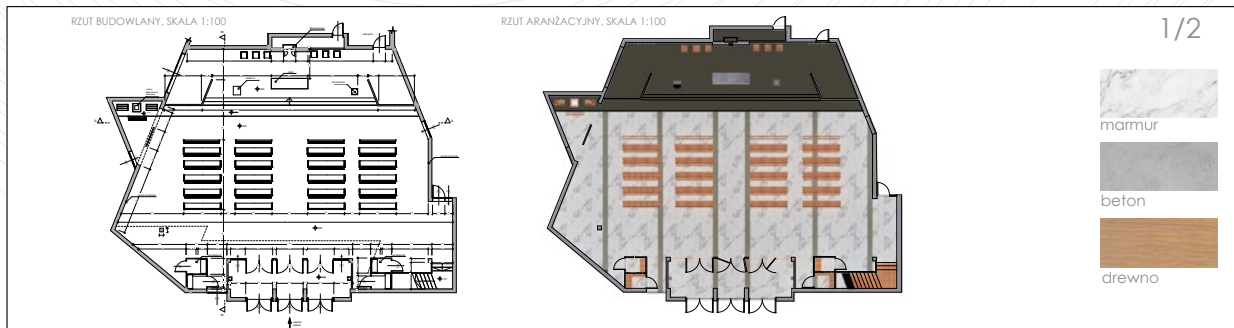
easily to the discovery that functional problems are much more psychological than we think. In "The Master and Margarita" Bulgakov wrote... "people are only people, housing problems have too much influence on them ...". The psyche is of course related to our personality traits, which is probably related to genetics, but a lot also depends on our level of development and age. In the past, architecture did not bother with the problems of young children or elderly people. Architecture was designed for adults and physically fit people. The Greeks used to say "a healthy mind in a healthy body". Being fascinated by Greek culture, we sometimes forget that their theories led to the principle of eliminating the old and the sick. Well, it all comes down to interpretation as a consequence. The same Greeks used to say "nothing to excess." The medieval maxim proclaimed that in love and hate, in happiness and suffering, one should strive for moderation. Renaissance philosophers used to say "I am a human being and nothing human is alien to me." It only follows from this that all conditions and contexts should be approached with moderation. Nothing changes as fast as function. This is an important truth because it prompts everyone involved in design to seek universal solutions that can be adapted to the changing realities and functions of space. For my own use, I have called my approach to this problem "negative design". It consists in subjecting the designed space to a test of the most unusual and unlikely situations that can happen within it. If the designed space is successful, it means that it will function well. One of my professors, when checking design concepts, used a "coffin" adjusted to the scale of the drawing. He was just checking if it was possible to take the coffin with the deceased in this space, it

sounds a bit macabre, but it is deeply vital. People have no influence on certain things, whether they like it or not, they grow old and die. It is a theatre of life that has lasted for centuries and nothing will change that. Designing for extreme age groups is nothing more than acknowledging this problem. First we are children, then adults, in the prime of life, fit people, and then we are old. In each of these periods, we differ not only mentally, but also motorically. The architectural space should therefore be adapted to these conditions. Childhood is short, old age a little longer, but both of these periods happen to all of us (at least they should). In this case, the attempt to search for an ideal space can go in two ways. One is a specialised space clearly addressed to a specific age group, and the other is the creation of a universal space, allowing for it to be adapted to the changing realities of our functioning. Both ways seem to be fully legitimate, although it should be remembered that with age, the realities of our functioning change, but not the rules. Of course, adapting a space to a specific age group is possible only in the case of designing specific, narrowly specialised spaces. In any other case, one should seek universal solutions that try to objectify the phenomena. Architecture, due to its suspension between "the spirit and the body", forces anyone who wants to deal with it to objectify the problems that need to be solved. This is obvious. However, it should be remembered that just as there are no absolute truths, there are also no absolutely objective solutions. Any creativity will always be a reflection of a subjective view, and there is nothing wrong with that. The problem concerns another context related to design, – the psychological determinants of the creator. Individual fascinations and psychological

conditions are the basic factor shaping the face of all creativity. Just as mental illness shaped van Gogh's work, so did Picasso's phobias have an influence on the final shape of his art. What does this have to do with architecture? Reading the texts and statements of Le Corbusier, we will quickly discover how much his extremely subjective view of the world influenced the form of his architecture, similar to the cases of Wright and Louis Kahn. Only such a subjective approach to problem solving yields the development and richness of architectural creativity. All attempts at indoctrinating creativity lead to inevitable decline. It is worth remembering, because a doctrinal approach to life does not have to mean only the political sphere. The doctrine can be either mechanical adherence to style conventions, or passive submission to the dictates of technology or economics. Many historical examples could be listed. Against this background, the problem of design elaborations created during academic studies is very interesting. Due to the specific method of education, consisting of the individual contact of the student with the teacher, the effects of work are an extremely interesting conglomerate of psychological conditions on both sides. This becomes clear when we start looking at the students' works. Louis Kahn used to say that, in fact, our lives depend on chance and our often random choices. He mentioned that had it not been for his professor, who instilled in him a passion for architecture, he could have become an outstanding composer. It may be an exaggeration, but he draws attention to the extraordinary role that the teacher (master) plays in the path of creative development. Perhaps this is another incorrectly underestimated context of creativity, – any creativity, – not only architectural.



Photography factory by LAURA ZUBEL
Course: Interior Architecture Design 1
Interior Architecture II, semester 1,
academic year 2014/2015



Projekt koncepcyjny wnętrza kościoła pod wezwaniem Matki Bożej Fatimskiej, znajdującej się na ulicy Bukaczonowej w Katowicach. Projekt przewidywał połączenie trzech głównych materiałów: drewno, kamień oraz betonu. Całe wnętrze jest nowoczesne i jasne. Projekt opiera się na symbolicznej oraz prostych, minimalistycznych rozwiązaniach, głównym dekoracyjnym elementem są betonowe grzypokafelniczne w różnych głębokościach ułożone werykalnie. Posadzka oraz układ funkcjonalny posiada niezmieniony.



KOŚCIÓŁ
POD WEZWANIEM
MATKI BOŻEJ
FATIMSKIEJ
W KATOWICACH

Autorka: SABINA PŘEDKA, Politechnika Śląska, Katowice, semestr: II, rok: 2020/2021
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Tematyka: projekt wnętrz (projektowanie) rok II sem. II semestr II semestr



Church interior design by SABINA PŘEDKA
Course: Course: Interior Architecture Design 1
Interior Architecture II, semester 1,
academic year 2020/2021

GEOsfera student campus by AGNIESZKA PILARSKA and KATARZYNA DONOCIK
 Course: Interior Architecture Design 2
 Interior Architecture II, semester 2,
 academic year 2019/2020



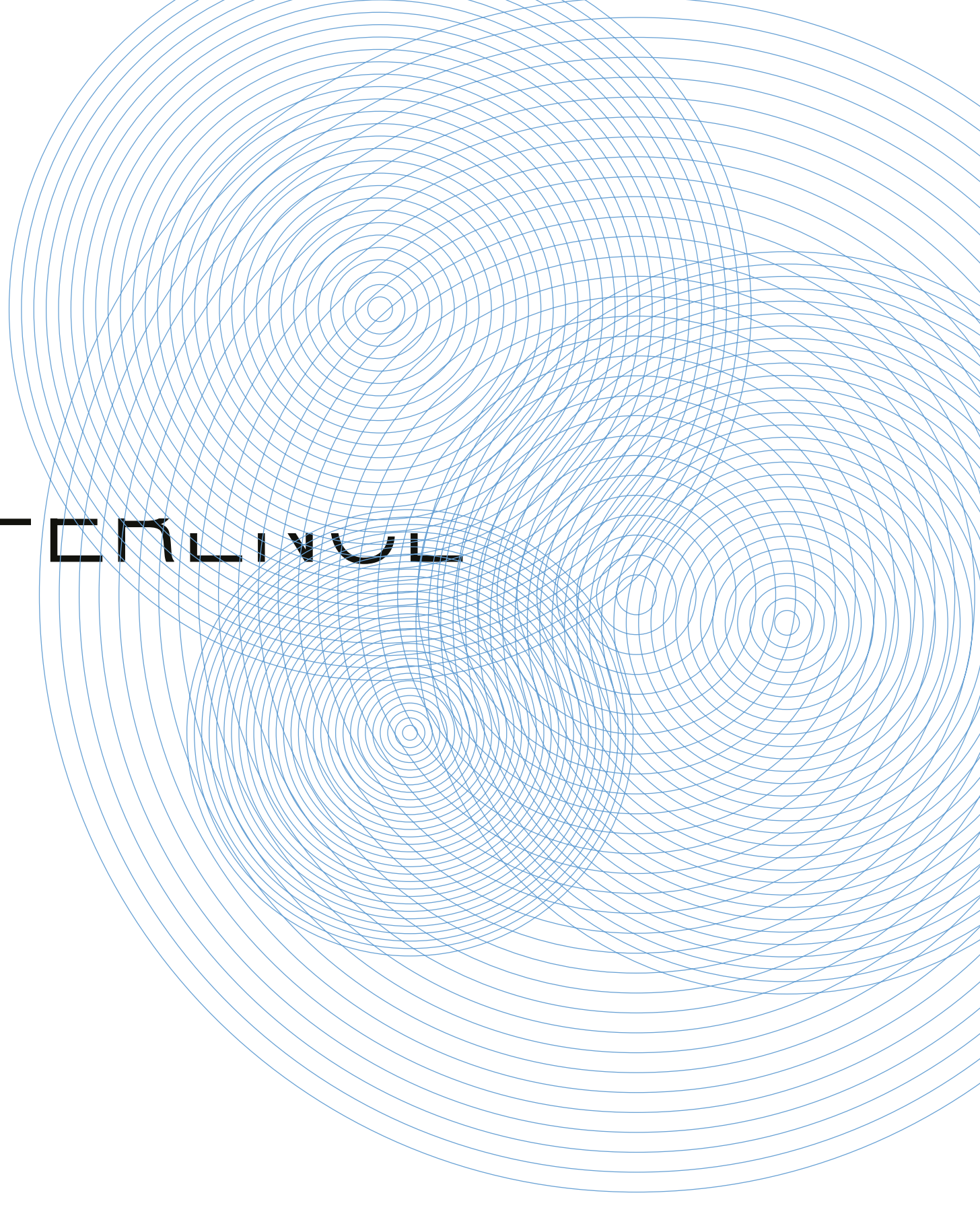
Sensory tunnels – playground by KLAUDIA PNIAC
 Course: Interior Architecture Design 2
 Interior Architecture II, semester 2,
 academic year 2014/2015

INITED

46 → 47

Narration. The tool of
inspiration and creation
in architecture – selected
examples of didactic and
author's own realisations.

GENERAL



Narration. The tool of inspiration and creation in architecture – selected examples of didactic and author's own realisations.

Ph.D. Eng. Arch.

**Krzysztof
ZALEWSKI**

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of Technology

ABSTRACT

There are many possibilities of using creative methods and techniques to improve a traditional workshop of a design architect and enrich the teaching tools for architectural planning and interiors design. These tools are generally labelled as: "narrative". Theoretical and practical issues of their use are discussed, including their benefits and potential threats. The results of using such an approach were presented on selected examples from both design practice and didactics.

Philosophy of life

One of the most important issues for an architect is obtaining unique creative results in the project, as well as systematically achieving them in subsequent works. There is some kind of repetition here, however not with regard to formal aspects – in this case we obtain a kind of "patent for architecture" – but aspects concerning a method or their set – patterns of operation leading to unique results each time.

It is also justified from the point of view of the recipient – user of the work – although not often obtaining artistic value is the conscious assumption of the ordering party. The fact is, however, that people spend most of their lives in the designed space, and its quality significantly affects its standard. "Modern architecture is not a style. It is a philosophy of life." (Ray Eames). Architecture is thus a "verb" – despite the fact that it is treated statically – it constantly affects the user, refers to higher spiritual values and the related mental and psychological needs of a human being.

In a broader context, architecture also creates the culture of society.

In this context- in discussing architecture, as well as in a creative approach- it is surprising that there is a common approach that promotes only its utilitarian aspect – the lowest in the value category (value system according to Max Scheler). Even in scientific circles, a rational approach and research techniques based on analysis are preferred, the aim of which is to optimise technical parameters. Also in the field of qualitative research in architecture, the main emphasis is placed on instrumental aspects – supporting the functionality or ergonomics of the facility.

It seems that this approach is insufficient as it omits a significant part of the human value system – to which architecture is addressed. Therefore, there is no focus on the factors responsible for the higher values – sensual (so-called hedonistic), or spiritual – cognitive and aesthetic values that translate directly into the "philosophy of life".

As Norman proves, however, it is not rational thinking but emotions that

determine the quality of life¹. A crucial role of architecture is to meet the spiritual needs and care for the user in the context of his psyche and aspirations. In this aspect, architecture also has an important role to play – it is to provide experiences, evoke emotions, or simply be beautiful².

Of course, this is not something new. It is enough to mention the classic words of the Vitruvian triad: *firmitas*, *utilitas*, *venustas*, to state that emotional elements have always been present in architecture. As its creator wrote: beauty – should delight people and lift their spirits. Therefore we refer here not to cognition, but to emotions. It seems that in today's society the emphasis is shifting to this last element of the triad. In the field of architecture, it would be appropriate to supplement the cognitive tools with those relating to emotional processes.

Emotions and cognition

“This would require a somewhat mystical theory to find a connection between beauty and function.”³ The difficulty of talking about beauty is finding the right tools and language that would efficiently describe these unquantifiable

¹ Wzornictwo i emocje. Dlaczego kochamy lub nienawidzimy rzeczy powszednie. [Aut.] Donald A. Norman, Arkady, Warszawa 2015

² Influence of modern scientific paradigm and design tools on contemporary architectural trends. [Aut.]: Krzysztof Zalewski, Adam Gil. In: Arts, performing arts, architecture and design. 2nd International Multidisciplinary Scientific Conference on Social Sciences and Arts SGEM 2015, Albena, Bulgaria, 24 August – 01 September, 2015. Book 4. Vol. 1. Sofia : STEF92 Technology, 2015, pp. 701-708,

³ Sztuka a przemysł. Zasady wzornictwa przemysłowego. [Aut.]: Herbert Read, Wydawnictwo Naukowe PWN, Warszawa 1964, p. 61

values. Norman points out that, from the point of view of this issue, the dependence of cognitive and emotional processes is significant. Emotions are an integral part of the cognition process as it has been proven – the emotional system influences the cognitive system⁴. That is why “nicer things” in our opinion “work better” and are more pleasant to use. It is the same with space. In this respect, the leading role of rationality or functionality of architecture is weakening, and the importance of “attractiveness” – the ability to inspire, evoke feelings or fascination, and even to take the user by surprise – in order to create coherence and improve the quality of life⁵.

Architect's tools

In this context, it seems that the field of architecture should be treated more as the domain of humanistic culture, not technical one – supplementing the architect's workshop with tools derived from it.

It should be emphasised that such a phenomenon takes place. Architects use the creative tools, after all, traditionally associated with other areas of culture, such as: essay, storytelling, model of thought, brainstorming, pyramid of associations, etc. They are

⁴ Wzornictwo i emocje. Dlaczego kochamy lub nienawidzimy rzeczy powszednie. [Aut.] Donald A. Norman, Arkady, Warszawa 2015, p. 22

⁵ Influence of modern scientific paradigm and design tools on contemporary architectural trends. [Aut.]: Krzysztof Zalewski, Adam Gil. In: Arts, performing arts, architecture and design. 2nd International Multidisciplinary Scientific Conference on Social Sciences and Arts SGEM 2015, Albena, Bulgaria, 24 August – 01 September, 2015. Book 4. Vol. 1. Sofia : STEF92 Technology, 2015, pp. 701-708,

always a means of generating ideas and expressing them in an emotional way. Their common feature is the creation of a specific “narrative” – a story, the role of which is at the design stage – supporting the design process by building a context supporting design decisions; at the stage of perception of the work: stimulation of the recipient's emotions, which influence the generation of a specific reflection

It is precisely “narrative” that seems to be the common denominator of individual techniques and methods.

Design process with the use of narration

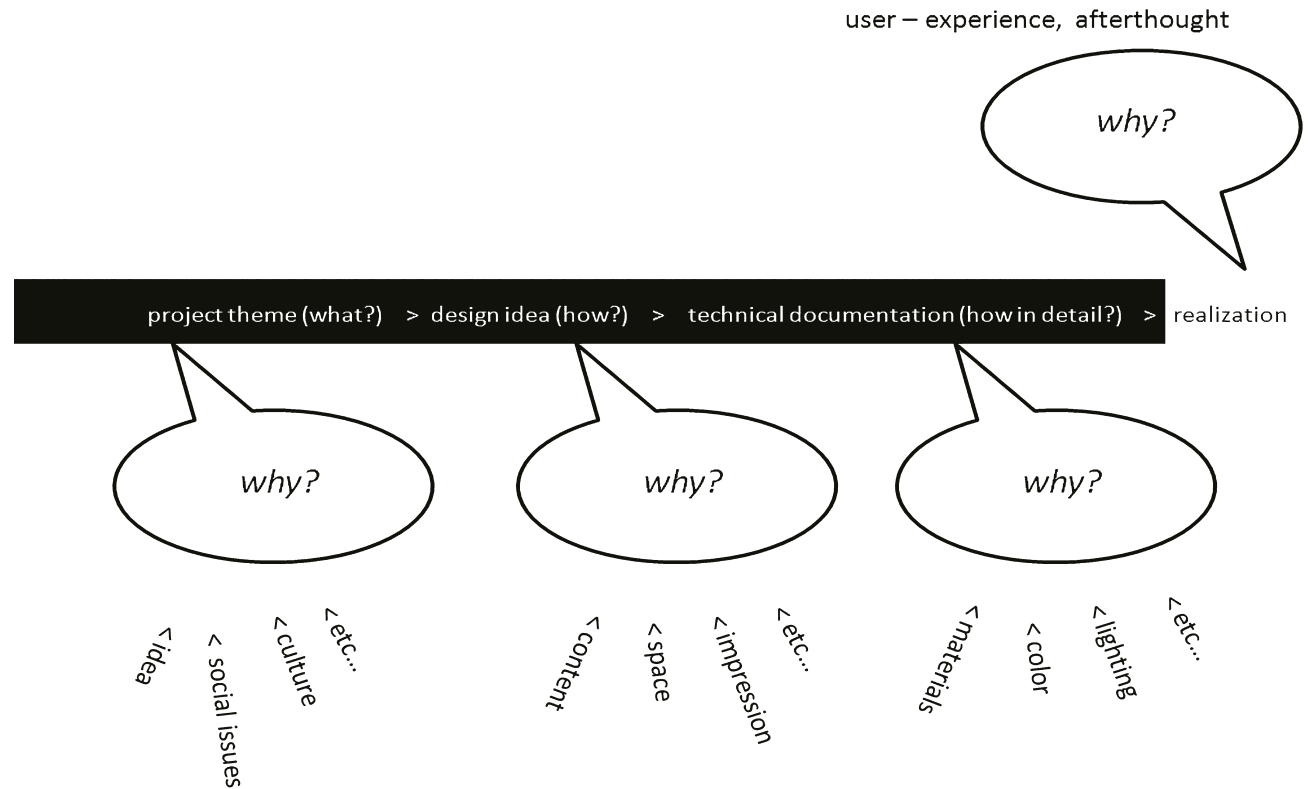
If, in simplified terms, the design process is presented as a sequence of stages running from the subject (“what should be done?”), through the idea and documentation (“what and how?”) to implementation, then the narrative is responsible for adding an explanation of “why?” at each stage of the design. As practice shows, it is the defining (by the designer) and understanding (by the recipient) of “why” that most often determines the success of the project⁶.

Building a narrative takes place at different levels of detail depending on the phase of the project and concerns different threads of the project task. (figure 1)

The use of narrative in the design process can cover all phases of design. At the preliminary stage, preceding the actual design process, the

⁶ Zaczynaj od DLACZEGO. Jak wielcy liderzy inspirują innych do działania? [Aut.] Simon Sinek, Helion, Gliwice 2013

Method of narration in a design process
 Source: Own Study



designer consciously seeks the initial forming idea (inspiration).

Building a narrative at this stage takes place by detaching from purely technical issues, and introducing general issues, e.g. ideological and cultural issues⁷. (economy, ecology, sustainability)

⁷ To design by recognizing: a new approach. [Aut.]: Natalia Bąba-Ciosek, Andrzej Ciosek. in: Knowing (by) designing. Proceedings of the conference "Knowing (by) Designing", Brussels, 22-23 May 2013. Eds: J. Verbeke and B. Pak. LUCA, Sint-Lucas School of Architecture Brussels, KU Leuven. Faculty of Architecture. Brussels : LUCA, Sint-Lucas School of Architecture, 2013, pp. 493-499

——— social issues / civilisation processes (digitisation, dematerialisation, urban sprawl, urban culture)
 —— cultural and spatial context (revitalisation, neighbourhood, local problems, creating a "space"),
 —— customer-related issues (identity, industry specificity).

These may be issues the subject matter of which is loosely related to the project.

During work, the designer considers the defined problem in a way that aims to explore the issue, synthesise the solution and translate it into operational solutions – the language of space and form. In subsequent, consecutive stages of the project, the issues defined

in the course of work become an inspiration to determine the approach and are transformed into the details of the design solution and the intended emotional and cognitive message.

The cognitive process influences the emotional involvement of the designer in the design solution. Since the emotional system affects the cognitive system, there is a feedback that allows for a more conscious and consistent selection of solutions and the consistency of the final aesthetic expression. The use of the "narrative method" affects the uniqueness of solutions and their greater intellectual and emotional load, as a consequence, it results in a better quality of design solutions and the diversification of

50 → 51

Narration. The tool of inspiration and creation in architecture – selected examples of didactic and author's own realisations.

solutions to similar design issues (eg. in the case of competitions or student works – within the same design issue). It also causes the self-development of the designer and the recipient.⁸

It is worth noting that this process, especially in the formative phase of a design idea, is difficult to describe methodologically and scientifically, because at the same time bears the features of an artistic and logical process⁹.

The process of defining a narrative presented here can be additionally structured by introducing stages of proceedings leading from the analysis of the issue to the synthesis of the results.

The subsequent possible course of action can be followed:
—— the generally outlined topic of the project is subject to intellectual analysis leading to the formulation of visual or conceptual (verbal) associations;
—— concepts are selected and the spatial as well as artistic associations are assigned to them,
—— and synthesis of solutions in order to obtain a coherent message.

The approach was tested in terms of the author's own creative work, as well as projects under his supervision, created as part of academic didactic classes, covering the following academic courses: Architectural Design and Interior Architecture Design, Interior Architecture Design 3 – in the Department of Architecture of the Silesian University of Technology, at the Faculty of Interior Architecture.

⁸ Ibidem

⁹ Projektowanie architektoniczne. Procesy wstępne. Prokopska A. Oficyna Wydawnicza Politechniki Rzeszowskiej, Rzeszów 2012, p. 21

Author's own projects – Case Studies

—— **House 102, Międzyrzecz** (Zalewski Architecture Group, author: Krzysztof Zalewski)¹⁰

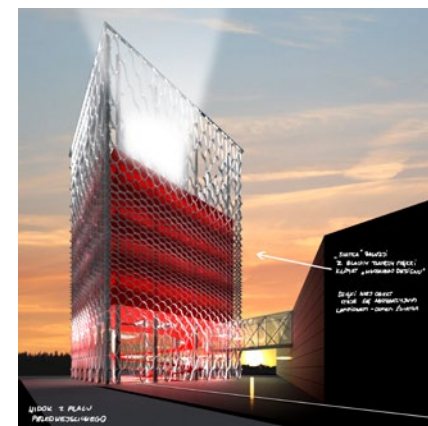
The inspiration for the project was the location of the object within the so-called Międzyrzeczki Rejon Umocniony [Międzyrzeczki Fortified Region] – post-German fortifications from the interwar period, in the form of a vast complex of bunkers, shelters and accompanying facilities, extending over a length of approx. 100 km. The historical context allowed for the creation of a narrative including the definition of the scale of the object, formal expression – aesthetics and materials (concrete) referring to military facilities in this area, also readable for the user and bystanders. The advantage is the individualisation of the facility, by contrasting it with typical residential buildings in this area, as well as the cultural and educational dimension – placing it in the historical context related to the location. As a result of these activities, a concise, readable shape was created that establishes a dialogue with the local context and history.

¹⁰ 102 House in Miedzyrzecz. [Aut.]: Krzysztof Zalewski. W: New panel layout for competition. Vol. 4. eds. Jinyoun Na. Seoul : DAMDI Publishing, 2016, p. 55



—— **Lux house – a house of light, an office building for a lighting company in Warsaw** (by Zalewski Architecture Group, by Krzysztof Zalewski, Adam Gil, Grzegorz Ziębik)

Investor wished to develop a two-storey building, with an area of approximately 2500m² in a horizontal layout, with an office space and a spacious products showroom. The issue that the design team took up was both to meet the client's requirements and to design an individual facility consistent with the customer's brand. The context of the motorway and the adjacent flyover, which would completely cover the object in a horizontal arrangement, became an additional challenge. The compromise solution of this project was to create a building whose narrative was based on symbolism and a layout reminiscent of a lighthouse. A vertical structure with an illuminated top storey was created – referring to the “wandering light” of the lantern. Such a decision provides a clear association with the investor's brand and products, makes the facility a hallmark of the company and a spatial accent visible from a distance, as well as



a better functional layout of the facility. While designing, the “pyramid of associations” technique was used.

——— **Restaurant zone in the Forum Shopping Center in Gliwice**

(author: Zalewski Architecture Group, authors: Krzysztof Zalewski, Adam Gil, Paweł Zalewski)

The project covers an area of approx. 1000 m² located in the main atrium of the Forum shopping centre in Gliwice (on the first floor and in the space of two mezzanines on the second floor). The idea behind the “food court” was to introduce associations with the natural landscape. This is mainly achieved by the location of the zone – next to the huge glazed external wall of the building – which makes it “flooded” with natural light. The narrative based on “introducing the natural environment into the interior of the building” is a natural extension of these favourable location conditions, as well as the



intention to distinguish the space from the commercial space of the Centre as a space for relaxation, “slowing down” area – to which the natural surroundings contribute naturally. Therefore, where possible, natural elements were introduced in the restaurant area and artificial elements of development related to them, such as: cloud-shaped lighting, sofas resembling stones, stylised trees, lamps referring to the garden landscape. Almost all elements have been individually designed for the needs of the zone. The rest are products with good quality design. The assumption was that the project should breathe “spring” lightness and freshness, hence a large number of transparent elements in the colours of natural wood and white were designed.

——— **Office like Silesia – KPMG office, Francuska Office Center, Katowice.** (authors: Zalewski Architecture Group, authors: Krzysztof Zalewski, Grzegorz Ziębik)

The project of the KPMG office in Katowice covered 1500 m² of space in the Francuska Office Center building in Katowice.

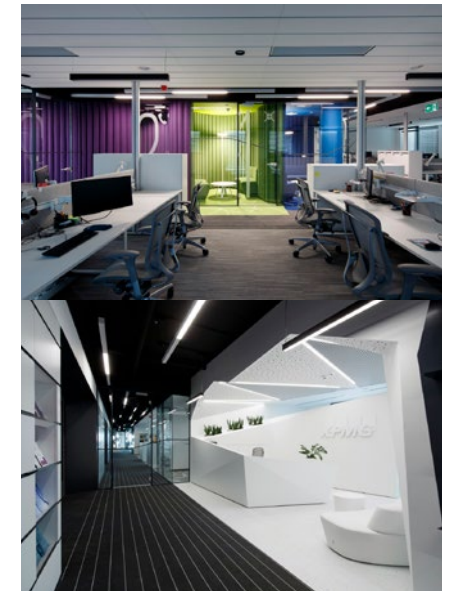
In the creation of the design idea, the thread from the company’s mission was used – combining global character with local values. The global character is expressed in the organisation of the office and refers to the organisation of corporate offices – supporting a spirit of cooperation and multitasking. There are open spaces, rooms for group work, focus rooms and chill-out zones.

The construction of identity and individual expression was based on the associations characteristic of Silesia. The observations quite directly referring to the industrial past – the mine

– and the Silesian landscape, the important feature of which is greenery (contrary to popular belief – which resulted from discussions with the Investor) were selected here deliberately. These associations seem to appeal to the imagination and to a large extent individualise the formal side of the project.

Instead of literalness, a subtle narrative guided by visual associations has been proposed, thanks to which the local character resonates here rather than being an unambiguous quote. The reception can be associated with a lump of coal, the communication space with an edit, but this connotation is not clear and obvious – it requires an interpretative effort from the observer.

Common spaces represent associations with nature and organic forms. In the main space of the chill-out room, the user is immersed in greenery – figuratively and literally. Tree





trunks grow out of the green floor and light “breaks” through the treetops. The atmosphere is complemented by a living wall with an area of over 30 m².

Colour and organic forms were used in collaborative work rooms and focus rooms. Here, the sense is twofold – firstly, easy visual identification, secondly, functional features, acoustic comfort, and inspiration for creative behaviour.

These rooms contrast with the calm and disciplined, monochromatic work zone. The limitation of colours and forms calms down and allows architecture to be a background for the life that employees bring there.

Thanks to space, the global corporate culture gets an individual expression. The architecture of the office creates a “significant” place for employees – people working in Silesia, and also clearly identifies the local office in the company’s global resources. This favours the company’s mission, which aims not to identify corporation policy with the theory of the masses.

Student projects – Case studies

(Interior Architecture II, Faculty of Interior Architecture)

——— **“Winter house” project**
(Interior Architecture II, academic year 2015/16, course: Interior Architecture Design 3, Conducted by: Prof. Janusz Stankowski, Krzysztof Zalewski, Ph.D. Eng. Arch.)

The project consisted in designing a seasonal house as part of the subject of Interior Architecture. The formulation of the subject as a “winter house” in counterpoint to the customary

understanding of a seasonal house as a “summer house” was a deliberate attempt aimed at stimulating the imagination of students and reformulating well-established patterns in the expectation of creative solutions resulting not so much from strictly design solutions but reformulating concepts and lines of thought.

——— **Eco Hut** by Aleksandra Smolik

The problem was defined in relation to the reflection on the lifestyle of modern man. The considerations intertwined the issues of the intensity of life in the city with life in the countryside, touched upon the topics of immersion in the information network and information overload, as well as concerned the issues of work and leisure. The synthesis of the above issues resulted in the emergence of the concept of rest/relaxation as a complete disconnection of man from civilisation – a kind of catharsis, as a response to the need to balance contemporary life. The consequence in the design sphere was the rejection of the idea of a building as an unnecessary element of civilisation. The narrative created in this way was enriched with ecological issues concerning the use of natural, biodegradable materials, as well as recycling and upcycling. The result is a form of “shack, hut” which provides only the basic functions where people can spend their free time in direct contact with nature. A rational approach to the house as a shelter is negated here – the building has no walls, and in principle does not provide protection against weather conditions. It rather constitutes a form of a multifunctional piece of furniture that enables to store the necessary equipment and to form the interior of the furniture so that it allows for performing only basic activities – sitting,

——— **Winter House. Extension of the cottage, located in the Podkarpacie region**, which was inherited by Laura Zubel

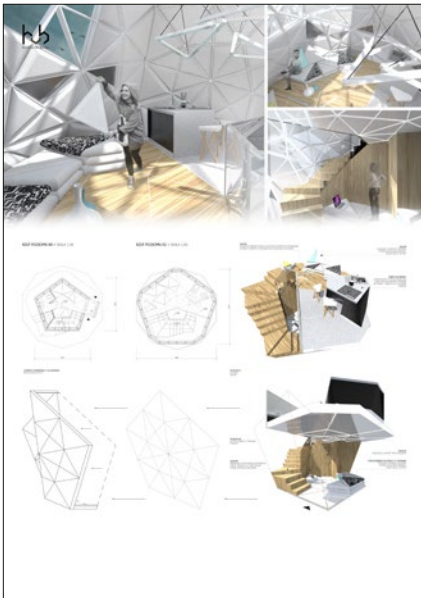
The project defined as the “house of the future” which was treated by the student as a pretext to reflect on personal issues – decisions about the future of a wooden cottage in Bieszczady inherited from her grandparents. The issue inspired the designer to consider the preservation of heritage, as well as cultural and material continuity of successive generations. The conclusion from the reflections was the decision to preserve the adaptable fragments of the authentic object in an unchanged form and location and their absorption in the newly designed building. The authenticity of elements such as external walls, flooring – was treated here as an important cultural value and adapted as a part of a new structure. It was also an inspiration to look for further references when designing the interior of the



Winter House by LAURA ZUBEL
Course: Interior Architecture Design 3
Interior Architecture II, semester 3, academic year 2015/2016

52 → 53

Narration. The tool of inspiration and creation in architecture – selected examples of didactic and author’s own realisations.



HUB. House under bridge by MONIKA SOMOROWSKA-STANIK
Course: Interior Architecture Design 3
Interior Architecture II, semester 3,
academic year 2015/2016

house, using materials and selecting equipment, while maintaining a conscious, modern approach to shaping the body of the building and its space.

———— ***HUB. House under bridge***
by Monika Somorowska-Stanik

The “house of the future” project has been treated through the prism of civilisation issues and contemporary spatial processes. The author considered the cultural attractiveness of the cities, their increasing number of inhabitants and the forecasts for their development. Current threats, such as, for example, the phenomenon of “urban sprawl” – that is, the uncontrolled spill of cities into suburban areas, were also taken into account. The conclusion of the considerations was the exploration of the possibility of increasing the density of culturally attractive urban centres by developing currently unnoticed and unused locations. The result of the project is a new form of “living under the bridge”, not only devoid of pejorative associations, but even attractive for young people – capsule, modular and compactly designed apartments. The author justifies such a solution with economic (housing price, transport costs, proximity to work) and cultural needs (access to “city life”).

———— ***The project “Meaningful Space”***, Interior Architecture II, course: Interior Architecture Design 3, academic year 2019/2020 (The course conducted by: Prof. Janusz Stankowski, Andrzej Ciosek, Ph.D. Eng. Arch., Krzysztof Zalewski, Ph.D. Eng. Arch.)

“Meaningful Spaces” is a didactic development issue referring to the examples discussed above. Students were given a specific design task related

to a greater extent to real design tasks, but with a similar emphasis on the interpretation of the topic and the meanings associated with it. The design task was to create the architectural space of the entrance hall of the office building – the company’s seat. Students were responsible for choosing the industry, identifying / defining associations related to the specificity of the company / industry, and then their interpretation in spatial and formal-artistic solutions. The aim of the project was to obtain a coherent and original interior that would unambiguously identify the industry in question for both employees and outsiders who do not have knowledge about the company.

———— ***Interior design for the cosmetics industry.*** Authors: Joanna Przebierała, Natalia Wasilewska.

In the preliminary phase of the project, the authors considered associations related to the cosmetics industry. In the course of the work, it was established that the concepts distinguishing the industries are “consistency” and “clarity”, “sterility” and its degrees. It was agreed that the interior should also evoke a feeling of pleasure and relaxation – which was associated with oval forms and subdued bright colours. Following these general guidelines, a palette of “visual tools” was designed in which – curves, ovals, spheres, and amorphous shapes and solids – were presented as an initial stage in the development of available and adequate forms. The same was done with the choice of the colour palette and their saturation – a limited palette of pinks, whites and blues was obtained.

The second part of the task was a functional solution and the design of a specific interior which was the interpretation and coordinated application of established artistic solutions. The simple functional disposition is emphasised by the rhythmic repetition of the rounded elements of the wall cladding and the partition – the reception background. Against the background of the above-mentioned elements, more sophisticated forms of reception have been proposed – an amorphous body evoking associations with a substance squeezed out of a tube with the consistency of gels, and proprietary seats in the form of irregularly shaped drop-blobs.

———— ***Lumira – Design of the company’s lobby – exoskeleton manufacturer*** (for space suits). Authors: Wiktoria Spruch, Krzysztof Ryszawy.

The project included the design of the same interior, taking into account a different industry. The methodology of operation in the project was similar to that presented in the previous example.

Due to the specific industry, building associations was much more challenging. For this reason, great importance was attached to the description and interpretation of values and associations reflecting the specificity of the industry. As the authors write: Lumira focuses on the design and improvement of space technology (...) “as the main values, features interpreted by the authors indicate the concepts of “Strength, courage, mystery“. Their artistic interpretation is a sketch which is an introduction to the creation of space. As a direct reference to the cosmos and mystery, as an interpretative concept, one should adopt oval,

rising shapes and subdued colours. The red-coloured pyramidal forms, breaking this monochromatic convention, refer to the threat that is contrasted with the calm and certainty of oval forms – a symbol of courage. The second layer of meaning is a reference to products – exoskeletons, which, although they are mechanical elements, facilitate the work of cosmonauts – this is symbolised by oval forms, however, composed of smaller geometric, repetitive elements.

Inappropriate narrative and threats.

It seems that the use of narration in design is an effective method contributing to the improvement of the quality of projects and influencing the achievement of individualised implementations that affect both emotionally and cognitively on the user – recipient. Nevertheless, one of the issues that cannot be ignored here is ethical issue. In the author's opinion, the essence of architecture constitutes its intellectual and moral values: honesty, authenticity, respect for truth and culture. These values relate to the content of the topics discussed as well as to the location and technical solutions.

Narrative, as a tool derived from humanistic culture, should support these values. Unfortunately, it can also be used for ethically ambiguous activities. Building a false narrative that results in styling and decorative activities with features closer to the scenery should be considered as such. This practice leads to the manipulation and falsification of messages and values that architecture and interior design should follow. For example – it is now widespread “fashion” for designing flats and apartments in a “loft-style” or “industrial-style”. This applies to apartments

in blocks of flats, historic tenement houses, and single-family houses – making the buildings and their interiors anti-authentic. The greater the literalness and realism of the quotes (and the less clear features of the scenography and stylisation), the greater the cognitive dissonance in the recipient and his growing conviction that shaping architecture depends only on the investor's taste and will as well as the imitative abilities of the designer. It is one of the sources of social consent to arrogance in relation to space, including public space, its aesthetic and cultural values.

Summary

The narrative complements the architectural design process with activities and elements outside of the traditional design workshop, thus: — supports the process of creation and decision at every stage of design (expands the plot and content of the project), results in a greater synthesis of effects, — affects the quality of the project – it helps to create new, individualised, often non-standard and surprising design solutions, — accelerates and directs the process and results in a fuller, richer, more synthetic and decisive message with an emotional impact, much better influencing the imagination of the recipient¹¹,

¹¹ To design by recognizing: a new approach. [Aut.]: Natalia Bąba-Ciosek, Andrzej Ciosek. in: Knowing (by) designing. Proceedings of the conference “Knowing (by) Designing”, Brussels, 22-23 May 2013. Eds: J. Verbeke and B. Pak. LUCA, Sint-Lucas School of Architecture Brussels, KU Leuven. Faculty of Architecture. Brussels : LUCA, Sint-Lucas School of Architecture, 2013, pp. 493-499

— it naturally connects various fields of art and design (architecture, visual communication, electronic media), thereby broadening the message and introducing social dialogue¹², — influences the development of the designer – it is a cognitive tool (broadening horizons, exploring new issues),

It is worth mentioning that the observations from operational experience prove that considering, and in particular presenting the client with design solutions from the point of view of interpreting the values that are close to the client, facilitates the interpretation and, consequently, assimilation of the design idea and the message it contains. Thus, it contributes to: — better matching of design solutions to the identity and individuality of the Investor (e.g. company – organisation)¹³, — a more substantive discussion in relation to the adopted solutions, reduction of potential comments, remarks and doubts related to the design, as a consequence of a significant acceleration and cost reduction of the design process on the part of the designer, — greater confidence in the solutions applied and customer satisfaction with the results of cooperation as well as the decisions that have been made. — greater acceptance for non-standard solutions or even

¹² What is Exhibition Design? [Aut.]: Lorenc, J., Skolnick, L., Berger, C.; RotoVision SA, Mies 2007

¹³ Architektura a tożsamość organizacji. Czy architektura może wspierać wartości i cele organizacji? Zalewski Krzysztof, In: Sztuka dla biznesu. Wspieranie kreatywności w organizacji. Eds. Agnieszka Wojtczuk-Turek, Warszawa : Wydaw. Nauk. PWN, 2019, pp. 104-126

intentional imperfections (e.g. in terms of the practical aspects of the solutions used), which results in a positive outcome in terms of individualisation and uniqueness of the project, ——— obtaining by the client – the organisation of added value – implementation can be an effective communication tool – external and internal marketing, and consequently helps in achieving its objectives ¹⁴.

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¹⁴ ibidem

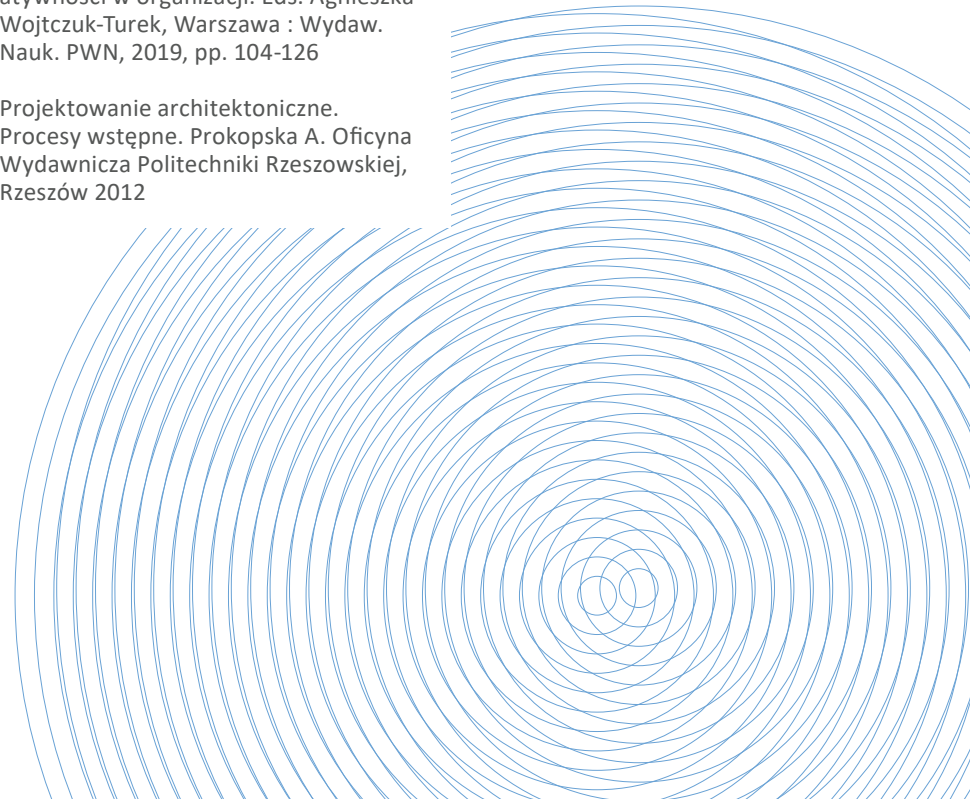
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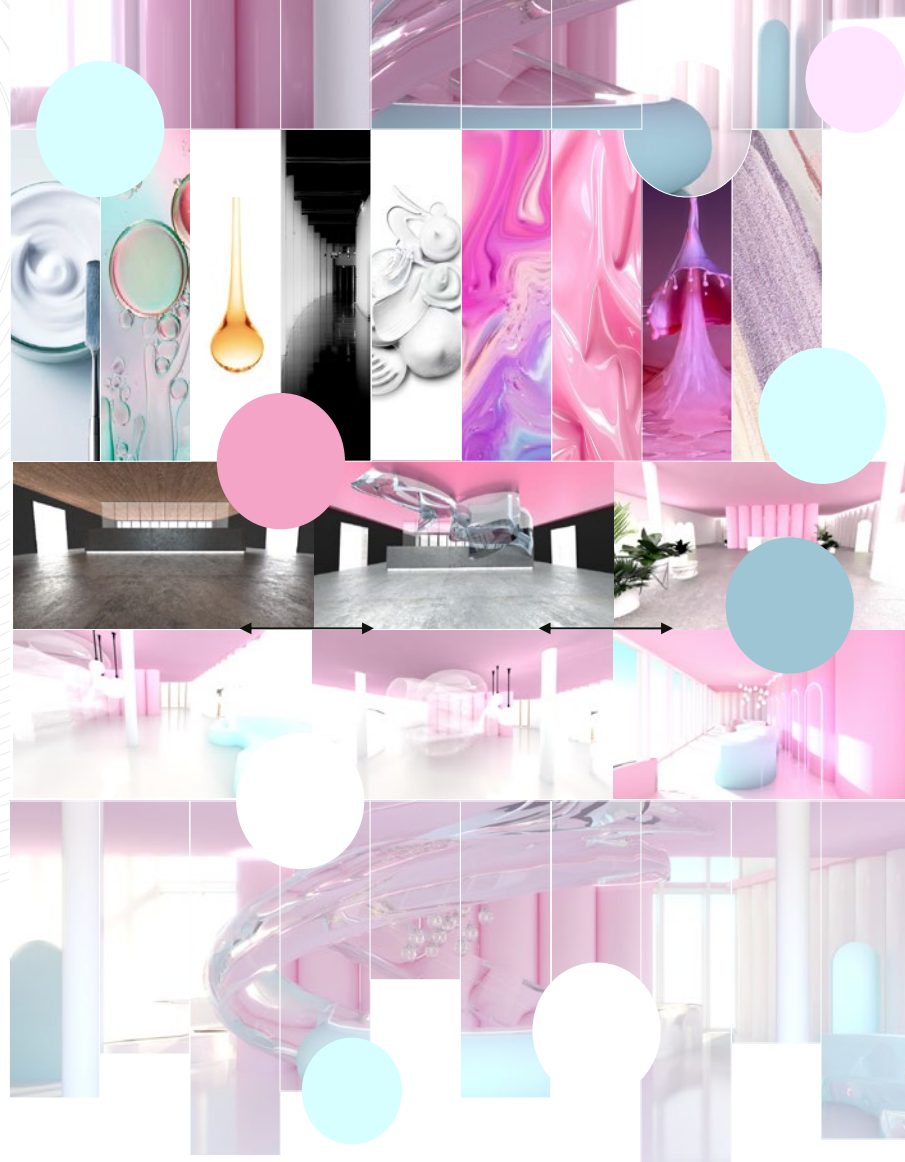


Interior design for the cosmetics industry
by JOANNA PRZEBIERAŁA and NATALIA WASILEWSKA.
Course: Interior Architecture II, semester 3
Interior Architecture II, semester 3,
academic year 2019/2020

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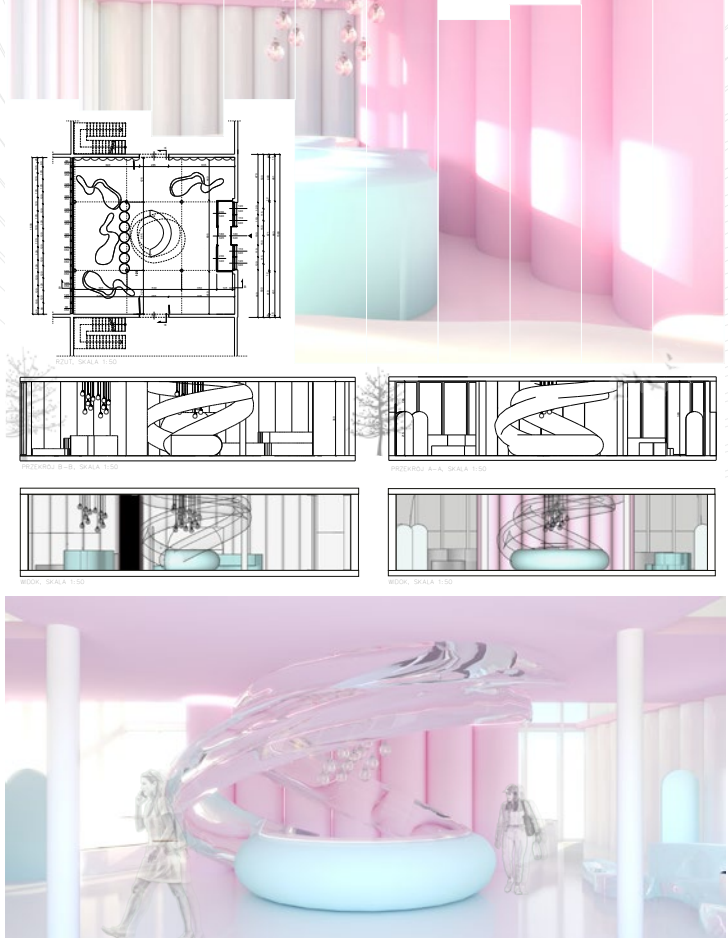
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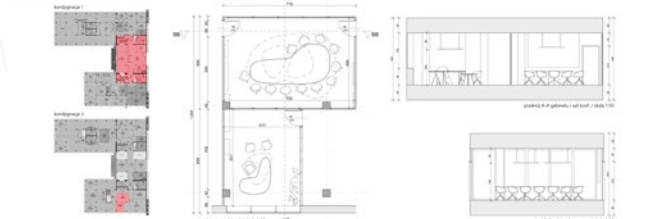
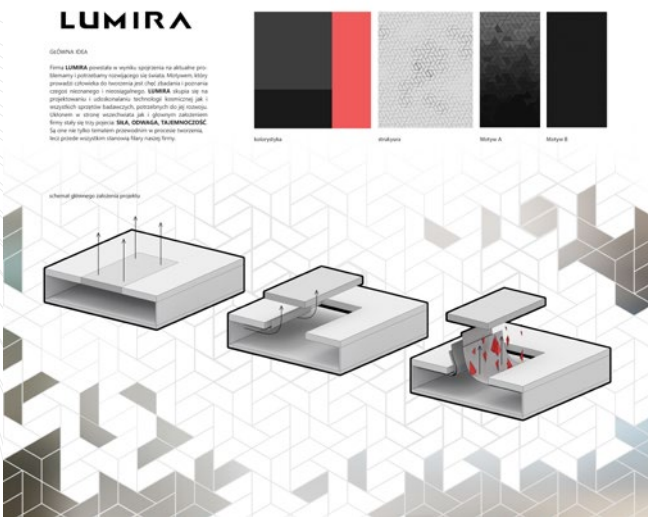
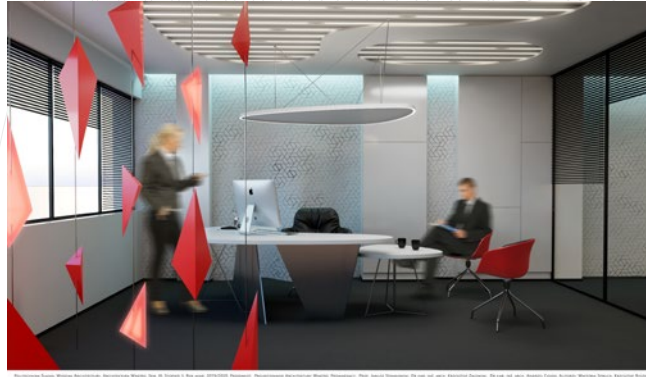
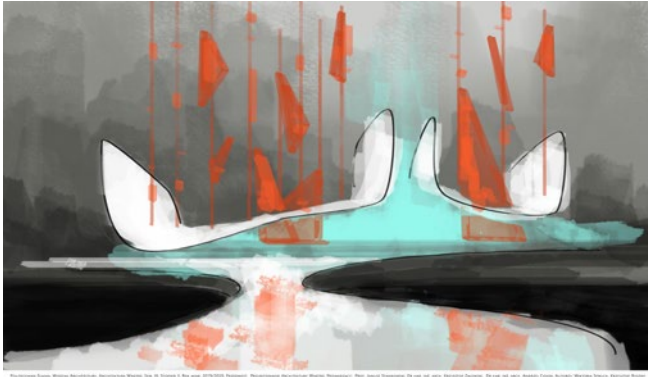
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Lumira – Design of the company's lobby – exoskeleton manufacturer (for space suits) by WIKTORIA SPRUCH and KRZYSZTOF RYSZAWY.
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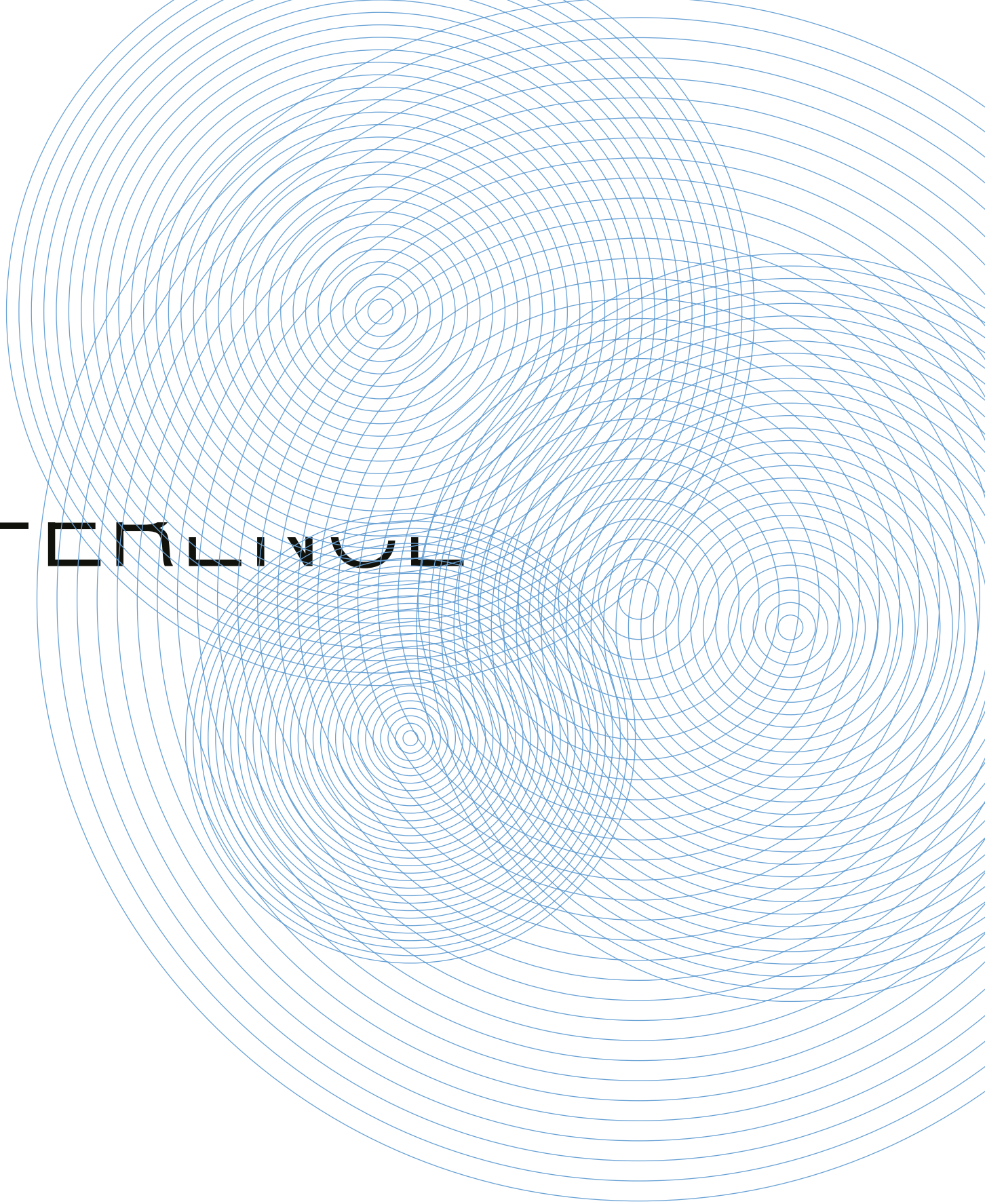


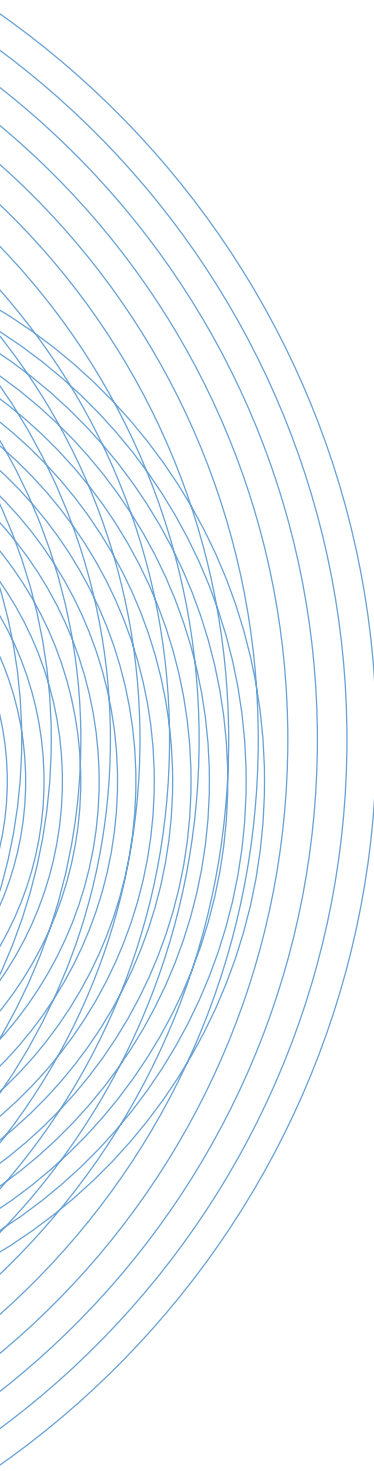
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58 → 59

An idea in the designed space

GENERAL





Ph.D. Eng. Arch.

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An idea in the designed space

ABSTRACT

The key in the search for new structures and forms in widely understood design arts is an idea. Creative transformation of space involves the solution of the issues of ideas, and not only specific design tasks, which should only be a pretext, or a starting point for more in-depth deliberations. All design activities that involve new values and ideas, indicating their essence and form, enable the description of modern space of life in a new manner. The sense of these places obtains a new dimension in the context of the created design concepts, which, referring to the multi-faceted space of creative inspirations, define the role of the places and the identity of their creators. While constructing new structures and their forms, choices are continuously made, involving a sense of conscious responsibility for the handling of space, which is our common good. In the art of design, the multi-layered search

for balance is also an attempt for creating harmony in the space that surrounds us, where the order of space and the order of ideas are of equal importance.

Contemporary design is a multi-threaded area focused on a problematic approach to the issues discussed. It is both a problem solving area and a method for the proper disposal of space and matter. Designing is a continuous process in which not only the final effect is a value in itself. The path taken, cognition, and reflection are concepts that the designer often refers to in his creative activities. The constant search for a balance between constructional and technical values, building material, coherence and harmony of the message, individual creative values and artistic expression, but above all, a clear message of the design *idea*, constitute significant challenges for contemporary active creators. The search for new areas and

spaces for project activities, and thus new solutions as well as new forms implemented around a consciously built *idea*, constitute a kind of programme declaration for many designers.

“There is no architecture without a concept, an overriding idea, a scheme, a rightly set goal that gives coherence and identity to a building. Concept, not form, is what distinguishes architecture from mere building. However, there is also no architecture out of context. The work of architecture is always set in place, in a geographically defined location, or in a situation – context, environment.”¹

It can therefore be assumed that the key in the search for structure and form in the broadly understood space of design arts – is the idea – “clarified abstract thought with an abstract load of expression, which makes it original, individual and substantial.”² Creative design achievements implement

¹ B. Tschumi, *Event Cities 3: Concept vs. Context vs. Content*, 2005

² J. Stankowski, *Integracja teorii i praktyki w twórczości nauczyciela akademickiego*, 2016

individual *ideas* of a different nature. Therefore, these are not structures of the universal dimension, but rather individual design concepts, the basis of which does not constitute pure aesthetic speculation, the possibility of appearing in the current trends, the self-creative attitude of a designer, or on another level, the passive implementation of specific guidelines. Creative realisations are built in the context of ideas, contain their own intellectual and artistic expression, constitute a personal reflection on a selected fragment of reality. Usually it is a reality which is a reaction to the user's needs, a reaction to social problems, sometimes it has a spiritual character and is extremely poetic, other times it is a kind of intellectual skirmishes with the surrounding reality. In their creation of space, designers try to solve *ideological* problems, not just specific design tasks, which are in a way a pretext, or rather a starting point for more in-depth considerations. Thus, in this understanding of the art of design, design tasks are formulated rather emphasising the importance of the selected problem, and not only in relation to the object and its functional programme.

Relating the above-mentioned conditions to the broadly understood education in the field of design arts, including architecture, several main themes and didactic methods can be observed. The traditional approach to the implementation of design tasks assumes presenting specific topics for realisation along with a specific functional programme of the facility and user profile. Then, the choice in terms of the subject becomes limited, as it relates rather to the decision on the type of architectural space – existing or model, and possibly a functional profile for a specific, previously

defined spatial and functional programme. The individual stages of design work, i.e. the topic, its analysis, then the concept and implementation follow each other in accordance with the adopted sequence and at a specified time. In terms of methodology, it is one of the most popular and proven approaches to the implementation of project didactics. The assessment of the learning outcomes is then rather free of problems in relation to the very precisely formulated initial assumptions. The loosening of these initial guidelines in the design process, a very large freedom in the choice of topic, design problem and program significantly complicates the rational, also based on a comparative system assessment of project implementation. However, on the other hand, which is very important, greater freedom of action makes it possible to make independent choices and implement original design *ideas*. Greater opportunities for action teach to take risks and bear the consequences of your own decisions, but most importantly, it stimulates the development of creative, artistic and design skills. The transfer of gravity and evaluation of work from the final stage, i.e. the final project implementation, to the area of crystallising ideas, collecting, selecting and analysing data, and creative creation of space introduces a certain kind of disorganisation in the well-established design process. Much more time is then devoted to research and preliminary research, focusing largely on articulating the design *idea*. Nevertheless, the benefits of such an approach seem invaluable. The final projects are much more mature in terms of design and art, and do not duplicate the mechanical implementation of tasks, the subsequent stages of the design procedure. As Gibbs writes, flexibility and an open mind are the

key elements in creating a space that makes maximum use of functional and aesthetic aspects. Planning and the entire creative process are often very complicated. Therefore, taking up new challenges in terms of the implementation of one's own creative activities, as well as design didactics, seems to constantly stimulate this process.

Case studies: author's own projects

———— **Museum, the Memorial Chamber of KWK "WUJEK" in Katowice**
(authors: Natalia Bąba-Ciosek, Andrzej Ciosek, Michał Łuczak)

The building of the former clothing warehouse where there is currently situated the Memorial Chamber Museum of KWK "Wujek" is located in Katowice on the premises of KWK "Wujek". The object is based on a regular – rectangular projection. The then clothing warehouse, which was intentionally chosen for the place of the Museum, was a silent witness to the tragic events which resulted in the death of nine miners. Fatal shots were likely fired from the steps and the ramp of this building. This symbolic place, which significantly inscribed in the history of Silesia required reflection and special conceptual work. It could not remain just an appropriate spatial and functional disposition of the adapted interior complex, devoid of a semantic layer. The idea behind the design concept is the metaphor of the gate – passage – daily descent of miners to the mine from the earth's surface to underground workings, the concept of passage as crossing certain ethical and moral norms, or finally the idea of a transition between life and death. All of these events clearly refer to the mining tradition and the events



Museum, the Memorial Chamber of KWK "WUJEK" (photo – property of ELIPSA sp. z o.o.)

of December 1981. The characteristic images of Silesia and the still-images from the December events identify this place in a way that defines its identity. The viewer, the visitor, is introduced into the space of the Museum through a kind of gate made of five arched frames, referring to the form of underground pavements. This procedure helped to shape an apparent entrance corridor to the main hall of the Museum. According to the design concept, the Museum Chamber of Remembrance, KWK "Wujek" is currently composed of four functionally and communicatively related rooms. The main exhibition hall with underlined mining enclosures, the entrance to the Museum was filled with, among others, photographs from the pacification of the Mine, the first days after the tragedy and court trials. Nine photos of miners who died at that time were juxtaposed with the photos of the perpetrators of their deaths. A suggestive object placed in the main hall is the devastated door to the apartment of the chairman of the mine "Solidarity" from 1981, Jan Ludwiczak. Another room of the Museum was occupied by a model showing the pacification of the Mine. The presented diorama was built by a team of over a dozen Warsaw modelers under the direction of Jan Natęcz. The model shows mine buildings, military and police vehicles. As part of the panorama, scenes with figures of miners, soldiers, policemen and other people were arranged. The traces of tires and tracks were imprinted on artificial snow, strike flags, mining barricades and even a stream from a water cannon and tear gas fumes were exposed. The whole thing faithfully reflects not only the layout of the objects, but also the smallest details provided by the witnesses of the events. The images of

the pacification of the "Wujek" Mine are complemented by a scene recreated by the mannequins of the Polish riot policeman, the ZOMO and the miner. The audiovisual room is a place resembling a small cinema room, intended, inter alia, to screen films thematically related to the events of December 1981. In the room with the screen there is also a cross similar to the one that stood at the wall of the Mine after December 16, 1981, with 9 lamps symbolising 9 killed miners.

The design concept focuses on exposing the sincerity of the substance of the existing building, including the emotional load associated with its history, and the gate designed at the entrance to the Museum, recalling underground mine pavements and galleries, aims to achieve the effect of leading the viewer into the history of the tragic December events.

——— *Museum of the Historic Silver Mine in Tarnowskie Góry*
(authors: Natalia Bąba-Ciosek, Andrzej Ciosek)

The concept of the project was built for the space of the existing Museum of the Historic Silver Mine (competition project) with an area of 325 m², a large number of various types of exhibits and significant financial constraints, which required significant involvement in the reconstruction of the existing space structure. This type of complex guidelines has been used as a specific attribute of the designed interior, and design decisions have been kept in simplicity and appropriate strength of influence. In terms of the concept, the idea of the road emerged, which was understood in two ways. First of all, as a road constituting the daily ritual of miners' work, but also as a sightseeing

route, the beginning of which is determined by the Museum. The road theme is clearly visible in the interior. In the first place, it is emphasized by a gap in the floor, which is analogous to mine watercourses. In the case of the designed space, it guides the viewer through the subsequent stages of the exhibition scenario. The resulting multi-threaded space required some order to create a better background for the emerging exhibition. Therefore, a kind of screen wall was formed, on which solutions were proposed to get acquainted with the history, geology, and techniques of mining and drainage of the Tarnowskie Góry underground. The entrance area is accentuated by a black cuboid with a staircase. Right at the entrance there is a model of an old mine, boundary stones, and in front of the entrance – a map showing the territorial range of silver ore mining, one of the many archival documents collected in the Museum's collection.

All the tools and equipment necessary for miners at work are displayed in free-standing cabinets, the simplified shape of which was inspired by geometrically cut blocks of silver ore. One of the walls is covered with enlarged reproductions of lithographs by Georgius Agricola. This solution was adopted in place of the traditional exhibition in order to build a graphic background for the presentation of, among others, hoisting devices, including a horse treadmill in hanging display cases. The black and white reproductions also emphasise the interactive measure relating the unit of measurement – metre to *fatr* – the former mining measure.

The next stage of the sightseeing route marked by a characteristic watercourse leads through the presentation of



subsequent mining machines, including a sludge washer and an ore crusher for the wall, on which the most important documents issued by the Mining Office, legal acts and the most valuable *Ordunek Górny* (a document which is known as *gwarecki* privilege, which regulated working conditions and wages in silver and lead mines). Also in this case, a decision was made to depart from the traditional ways of displaying documents, and thus two cylindrical rings were proposed, which were covered with reproductions of documents and certificates. The movement of the cylinder makes reading easier and introduces the user to a kind of interaction.

The last stage of the museum trip is a large exhibition of ores and minerals, closed in both low and high, but also cylindrical display showcases. The space of the above-ground part of the Museum is closed by a wall covered with an enlarged photograph of the “Silver” Chamber, introducing the viewer to the atmosphere of underground spaces and directing them to the shaft cage in the “Angel” shaft.

The proposed space concept for the Historic Silver Mine Museum is based on simple exhibition formats. Design decisions evoke the nature of underground chambers and walkways, reflected in the rusty and brown colours of selected interior space elements, a slight silver shine of specific details and the expressive shape of the suspended ceiling. This ceiling perversely refers to the formation of natural ceilings of underground spaces, with the only assumption that it gives the interior a lightness rather than overwhelming it like the original one. Functional and formal searches for this project took place in the awareness of considerable limitations, while expecting a significant change. Although this project has not been implemented,

it is a valuable experience related to the search for specific means of expression and building an architectural concept and structure of space in a specific atmosphere of a place and a difficult building substance.³

Case studies: student projects

——— **Anorexia. Course: Basics of Exhibition Design – social problem**
Author: Daria Majka (BA studies, Interior Architecture I).

In the case of this project, the student raised the topic of anorexia, which she studied very thoroughly as part of her own research. The result of her search was an attempt to present the problem from a different perspective. The idea for raising awareness and presenting the essence of the disease has been concentrated, in this case, on the set of dramatic photos of sick women with selected paintings by Salvador Dali. The attempt to define the essence of the problem, which lies in the way of seeing, perceiving and evaluating the human body, was made here in a very personal and discreet way. The changing perspective of perceiving images gives a different possibility of their reception and evaluation. The resulting set of impressions can be both positive and extremely negative. On the basis of this reflection, the student organised an exhibition in a very interesting way, which aims not only at presenting the problem directly, but also demonstrating a wide range of perception and assessment disorders related to this disease.⁴

³ description of original design concepts based on: A. Ciosek, *Śląska tożsamość miejsca na podstawie realizacji projektowych*, 2015

⁴ N. Bąba-Ciosek, A. Ciosek, *To design by recognizing: a new approach*, 2013

——— **Child Soldiers. Course: Basics of Exhibition Design – social problem**
Author: Agnieszka Zajac (BA studies, Interior Architecture I).

An exhibition on the difficult topic of using children as active participants in armed conflicts. The author presents the problem on two layers. Perversely, on the outside part of the exhibition facility, there was presented a rainbow-coloured, joyful world of a child, this world was demonstrated in such a way as to show, by introducing the viewer inside, the clash of the observer with the presented problem. The exhibition space has been organised in a very simple way, using a minimum number of means of expression. It consists of two interconnected containers in which the exhibition has been arranged. However, in order to clearly and suggestively illustrate the idea, the undertaken design activities seem accurate – a special cuboid was designed in the centre of the interior, in the form of a spatial map, showing places where the presence of soldiers’ children is particularly frequent. Protruding barrels of rifles allow viewers to see photos of children through binoculars.

——— **PZO exhibition space. Course: Exhibition Design – research project**
Author: Milena Wzgarda (MA studies, Interior Architecture II).

The design concept of the exhibition hall for the new building of Waste Management Company Ltd. in Gliwice assumes the coexistence of two spatial scenarios. One of them shows a clean, seemingly meaningless interior. Its form, however, manifests the need to joint efforts to improve the reality that surrounds us in the context of the progressive phenomenon of thoughtless littering and environmental degradation. In the second version, the narrative takes

62 → 63

An idea in the designed space



Museum of the Historic Silver Mine (computer visualisations)

on a more complex character and leads through the projection of diverse educational and popular science images. The interior was filled with content and form in a more saturated way, and the narrative of the exhibition is rich in the most important information about segregation and recycling, which has been communicated in a creative way. In the construction of the structure of each of the information zones, multimedia and modern communication technologies were used. The exhibition in a model way promotes the activity of Waste Management Company Ltd. (PZO) and knowledge about sustainable management of municipal waste and at the same time raises a very important issue.⁵

The presented concepts and design implementations, their message, emotional load and the way of understanding and interpreting the surrounding world, as well as the design workshop may prove the significant commitment of designers, the ability to make their own, often not very popular choices, and finally a certain design maturity. The emerging awareness that relates to the value of an *idea* in art, an *idea* that is a specific organiser of activities within the structure and form, constitutes the right direction in the designer's development. The discussed thesis also has its reference to the programme declaration: "Architecture is an art that seeks balance – between spirit and matter, form, function and construction, an existing being and a new *idea*."⁶ All these values make up the structure and architectural form. However, what is most important in this case is that the presented model of creative activity shifts the burden of

⁵ N. Bąba-Ciosek, *Design for ecology: Academic research project*, 2020

⁶ program declaration of the Interior Design Studio, head of the studio: prof. Janusz Stankowski, University of Arts in Poznań

responsibility from task-oriented, objective thinking about design to a broad problem-based approach, which to a large extent stimulates individual development, allows for deepening interests and conscious shaping of the personality of the designer. *Any transformations of space that implement new values and ideas, pointing to their content and form, enable us to re-describe the contemporary living space: house, workplace, a place of entertainment, area of concentration. The sense of these places takes on a different dimension in the context of the created design concepts, which refer to the multi-threaded space of creative inspiration, define the role of each of these places and determine the identity of its creator.* By creating new structures and their forms, various choices are constantly made, which is associated with a sense of conscious responsibility for the disposal of space, which is a common good. Increasing environmental awareness and the associated care for the natural environment also opens up a number of new opportunities for the development of design ideas. The aforementioned multi-threaded search for balance in the art of design also aims at shaping harmony in the surrounding space, where the order of this space is equally important, as is the order of the *ideas* present in it. A designer's work should be an artistic creation, and artistic expression should not be trapped by conventions and artificial divisions, excluding objective norms and rules. The conducted research on space as well as creative experiments and design activities should contribute to the creation of implementations with fresh and unconventional assumptions, high impact force and far from standard solutions, because "... architecture today draws its originality from a variety of directions and *ideas*."⁷

⁷ M. Misiągiewicz, *Architektoniczna geometria*, 2005

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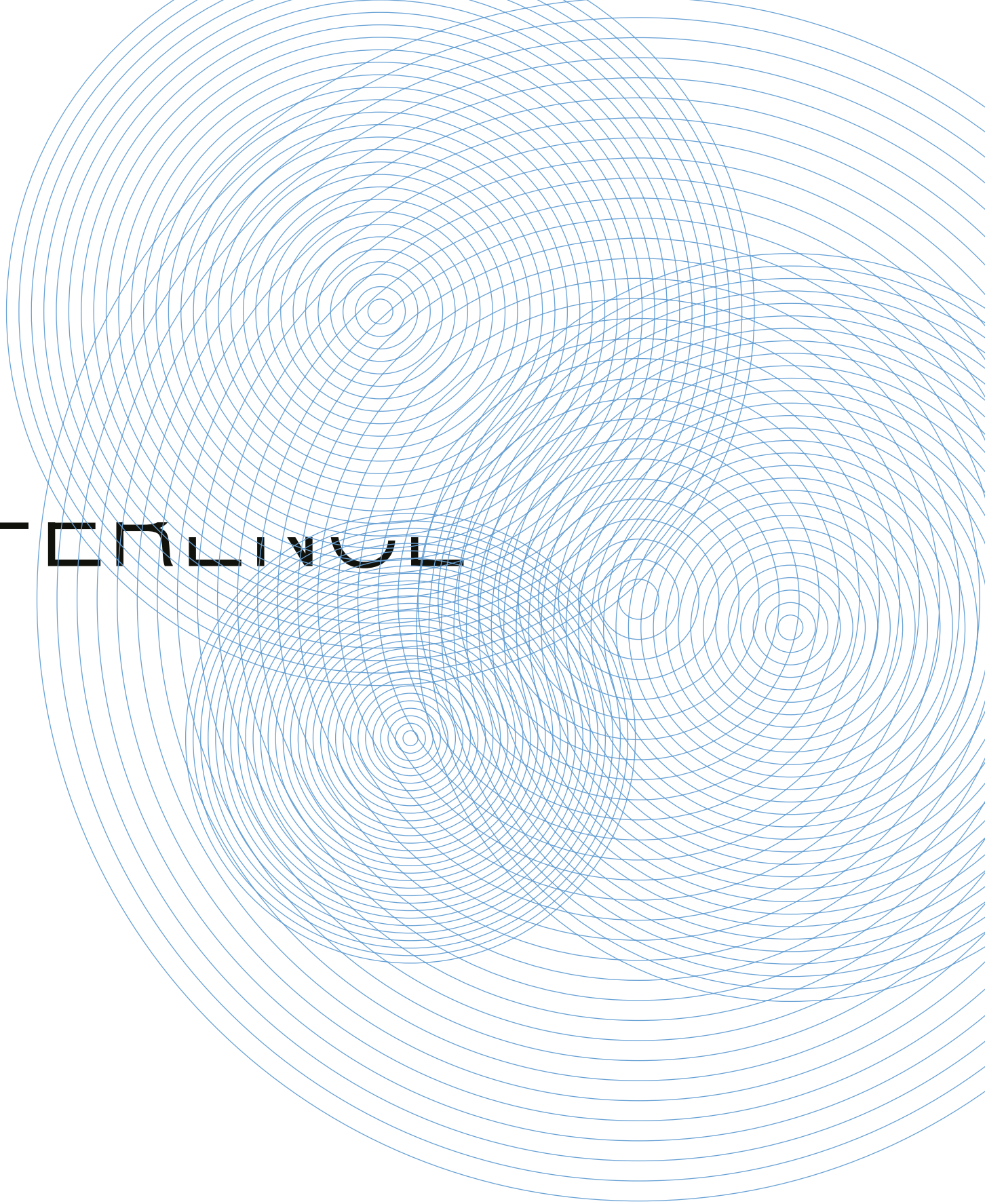
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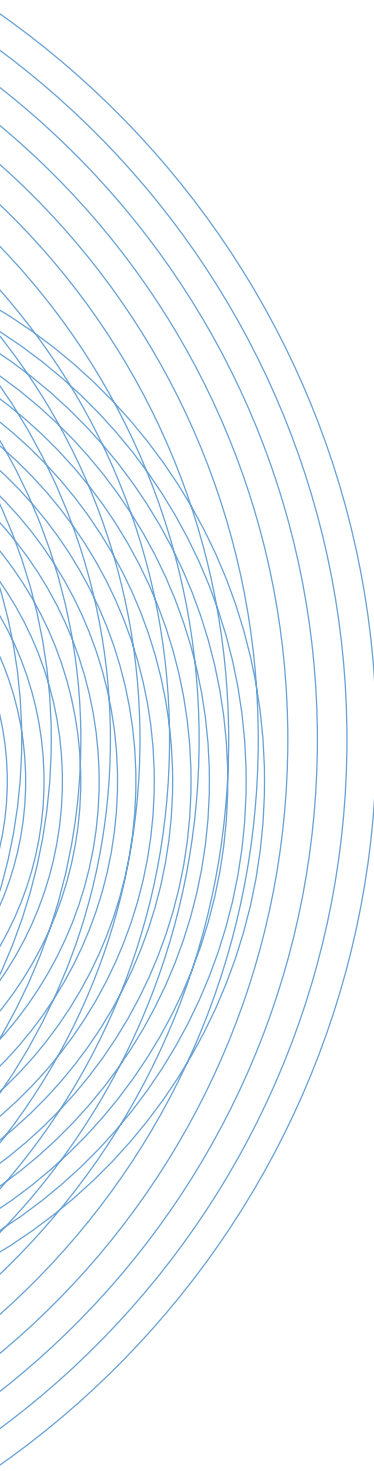
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66 → 67

Designing for industry –
opportunities and threats

GENERAL





Designing for industry – opportunities and threats

Ph.D. in Fine Arts

**Krzysztof
GROŃ**

ABSTRACT

Designing for industry has a complex and multi-layered specific character. It poses many opportunities but also various threats that the design architect has to face. It is supported by definite management systems, the schemes of which may not be so important for the architect, yet, they determine the design process to a large extent. Designing products destined for mass production involves not only abstract thinking, but also requires practical skills and intuition on the part of the architect. All this is undertaken so that users receive the message embedded in the product by the design architect, and, at the same time, could properly use it in everyday life. However, the probability of success of the product increases when the designer is co-responsible for the product, from the stage of its conceptual emergence to the implementation stage. The final result is frequently an effect of compromises involving the designer's

vision, technological capabilities of the manufacturing enterprise, binding standards, production costs, acceptable price of the product, and users' expectations.

In Samuel Lilley's book entitled "People, Machine and History", devoted to the development of humanity in the field of innovative ideas and objects, the transformations of which are visible during the announcement of successive stages of industrial revolutions, we look at technological progress in the context of the evolution of tools useful for human work. Humanity has always needed improvements, tools that relieve it from burdensome or too dangerous work. The free time gained thanks to this becomes a buffer needed for creative thinking between work and relaxation. This is one of the elements of the "creative stimulus" that humanity is constantly striving for. Time devoted to thinking becomes the main element of development, it is a condition for the survival of the species and technological development closely related to the processes of thought, design and building architecture, as well as the production of everyday objects, including furniture. Looking at the history of mankind, it is safe to

say that manufacturing has become the driving force behind its development.¹

Designing for industry

Designing is a creative activity that requires from the designer not only the ability and deep knowledge, but also the ability to observe the world. The term "design" is most often understood as an activity aimed at composing of generally known elements, a new, so far unknown or little-known "entirety"². To put the issue in the most down-to-earth way, design is a certain outlined mode of operation carried out in practice with the help of available and selected tools, which include a computer, software, pencil, and a drawing board. The project, on the other hand,

¹ Lilley S., *Ludzie, maszyny i historia*, PWN, Warszawa 1963, translated by Wiktor Chitruk.

² Dziegielewski S., Smardzewski J., *Meblarstwo. Projekt i konstrukcja*, PWRIL, 1995, p.32.

is usually drawings, documentation made with the use of classical methods and supported by modern devices such as a computer and a 3D printer.³

In order for the project to be created, the designer prepares for work by introducing creative methods into the process, which include, inter alia, “brainstorming”, which is defined as “a method of group work aimed at coming up with as many ideas as possible to solve a given problem”⁴. The presented example allows the designer to break free and stay at the level of creative thinking. Additionally, luck, which is also needed, plays a significant role in the process of appreciating the project by the general public⁵. “On the other hand, the price of failure can be high, that is why, it is sometimes more convenient to stick to the beaten path. The designer **must not be afraid of mockery and failure, one must have the courage** to try new and uncertain ideas, even if the concepts do not have clearly defined benefits”⁶.

In the context of communication, design is the generation of a message in the form of a product by the designer. Its basic elements are form, content, colour, function, ergonomics,

³ 3D printing – the process of producing three-dimensional, physical objects on based on a computer model. Initially, it was only one of the rapid prototyping methods used both for building forms and prototypes, [downloaded 30/08/2015] http://pl.wikipedia.org/wiki/Drukowanie_przestrzenne

⁴ Morris R., *Projektowanie produktu*, PWN, Warszawa 2009, p. 25.

⁵ Today there are many techniques that are used during the preparation of the design concept.

⁶ Morris R., *Projektowanie produktu*, PWN, Warszawa 2009, p.25.

the culture of being and use, as well as the disposal of the product after its final function-life. In the documentary film entitled *Designers*⁷, product designer Katarzyna Okińczyc states that the designer must reach the consumer not only through a nice form, but also through nice content expressed by the product. The product should have “some idea”, innovation or new technology. The designer states that it is very important to analyse the target market and existing technologies. To create an original project, you need a very wide field of view, assuming the interdisciplinary nature of social life.

Italian designer Antonia Astori describes design as follows: “It is a very easy process. I start with rational reflection in order to answer the problem, which in most cases is required by the company; but the design only begins to take shape after long work on the exact proportions, choice of material, details”⁸. It should be noted that the “life” of a project does not begin when the concept is transferred onto a piece of paper, but much earlier: in the mind of the designer. The questions and practical activities posed by the creator are aimed at providing an exhaustive answer in the form of realizable concepts. A project becomes “material” over time.

Bogna Świątkowska from the Bęc Zmiana Foundation says that we live in a world that has been designed, because its shape and value are given by the forms assigned by designers. Design creates new jobs. They can

⁷ http://www.domoplus.pl/2010/dizajnerki-katarzyna-okinczyc_132 [downloaded 28.03.2015]

⁸ correspondence with designers for the purposes of this publication

result in market success if you like the product, or failure if something has been badly designed. A badly designed car is a disaster for the car factory and its several thousand employees. “⁹.

The quoted statements lead to the design of products that are intended for mass production, which has many connections with abstract creativity, but at the same time requires practical skills and intuition from the designer. This is so that a person receives the message contained by the designer in the product, and at the same time can properly use ones work in everyday life. Przemysław Dębowski and Jacek Mrowczyk write in their book entitled *Widzieć. Wiedzieć. Wybór najważniejszych tekstów o dizajnie...* “[See. Know. A selection of the most important texts about design ...] that “a good design should be aesthetically and functionally satisfying”¹⁰.

What is the true purpose of design?

Designing is a very complex process influenced by many factors. It usually starts with getting to know the topic by researching the market and evaluating the existing forms in the market. For example, in the furniture industry, the team responsible for the company’s product offer, cooperating with business partners and regional managers, constantly gathers information from the market about the needs of customers and their expectations. On this basis, it prepares guidelines for designers and constructors, and then defines

⁹ http://www.domoplus.pl/2010/dizajnerki-bogna-swiatkowska_158 [downloaded 28.03.2015]

¹⁰ *Widzieć, Wiedzieć. Wybór najważniejszych tekstów o dizajnie*, KARAKTER KRAKÓW 2011, p. 9.

a market niche (appearance, functionality, price and similar parameters of the furniture that is missing on the market). Any suggestions that may be useful when creating a new furniture model are included in the so-called design brief. It is the basis for the designer's thoughts on a new project, and also imposes a specific schedule on it.

Designing for industry is supported by management systems, the diagrams of which may mean little to a designer. It is worth analysing this content while preparing for project cooperation with the company, as this will allow to create a communication concept for the designer that will be tailored to the realities of the company and the individual characteristics of individual team members.

When the designer's idea takes the form of a drawing on paper, the company's production capabilities are checked, a prototype is developed, and the market is verified in terms of project adequacy and expectations. A good opportunity to verify the idea are industry trade fairs, during which a new model is presented to business partners. The positive result of the analysis is the basis for making a decision to implement production, include the model in the offer and develop a marketing strategy. Modern technologies allow for the implementation of a new product (prototype) and its display on the exhibition space in the showroom in a very short time. The most difficult thing is to define the product, determine precisely by the manufacturer what expectations are set for a given product and take responsibility for the market life of the product. If the product has professional marketers who will take care of every

detail of development, you can risk a statement that it will be successful.

This short description does not reflect all the problems, questions and doubts that the project team encounters during many months of work. However, the probability of a product's success increases when the designer is co-responsible for the product from the moment of its creation to the implementation stage. The final effect is often the result of a compromise between the designer's vision, technological capabilities of the company, applicable standards, production costs and the product price acceptable to the market and the expectations of customers.

The cooperation between the designer and the manufacturer during the product development period means, of course, constant communication. What is the importance of the type of relationship between these two parties? Based on statements from recognized designers, it should be stated that the success of the design process depends to a large extent on effective and concise communication between the designer and the manufacturer. Multi-level communication consisting of people with different qualifications, positions and communication skills.

How to define design?

Modern consumer expectations of a product often include design. Although this concept is ubiquitous in advertising, art and industry and is sometimes equated with modernity, fashion and everything that is popular and practical, we often wonder what it really means. "The word design comes from Romance languages and is included in the meaning of the word

drawing. Latin *designere* means outlining, Italian *disegno*, both drawing and artistic idea, mental concept."¹¹ Latin *designere* – from the preposition *de* and the noun *signum* (sign, symbol) means at the same time to mark, designate, present, draw, point, show, define, determine, decompose, recommend, establish, create something extraordinary. This concept describes the functional and aesthetic features of industrially manufactured items. It concerns the process of solving utility, technological, social and aesthetic problems. The basic feature of good design is the awareness of creating the image of a person, product. Already in the 1920s, the product manifested the identity of the brand, which expressed the ideas of constant quality, supported by unchanging packaging and graphic design. In the 1950s, the concept of *image* was born, which defined a certain image of a product and its potential recipients. Currently, one of the factors that forces the product image to be refined is the globalisation of markets, producers, goods and technologies. Distinguishing yourself from the competition, gaining and increasing your market share is the key to success.

In the above-mentioned documentary series *Dizajnerki* [Designers] Anna Siedlecka states that design in Poland is developing dynamically and on many levels. Entrepreneurs and consumers learn that design is something necessary for them, even indispensable. "Entrepreneurs discover that design is a profit generator, that it is an investment for the future. Consumers learn that design

¹¹ Fleischer M., *Corporate identity in relations*, Dolnośląska Szkoła Wyższa Edukacji TWP, Wrocław 2003, p.67.

is something they can surround themselves with on a daily basis, it does not mean something unique that can only be afforded occasionally. Designer products are all well-designed things. “In turn, Agnieszka Jacobson-Cielecka – a journalist and specialist in the field of contemporary design, artistic director of the Łódź Design 2008 and 2009 festival – believes that in Poland there has been a clear division into the so-called industrial design (i.e. design for industry) and a more unique design, which is leaning towards art¹².

Interestingly, products manufactured by the designer himself or under his strict author’s supervision, in short series, differing from most of the market offer, are characterized by a much higher price and quality, in many respects resembling the products of historical craftsmen.

Creation of new products

How, for what purpose and why are new products created? The answer to this question depends on who we ask it to. Inevitably, designers for whom this is a question about the source of inspiration will answer differently, and the answer of producers focusing primarily on business activity and its financial results will be different. In order to try to answer this question, it is also worth referring to sources and defining inspiration. The authors of the dictionary of the Polish language explain inspiration as afflation, creative enthusiasm, as well as an influence exerted on someone, a suggestion¹³.

¹² http://www.domoplus.pl/2010/dizajnerki-agnieszka-jacobson-cielecka_192 [downloaded 27.07.2015]

¹³ <http://sjp.pwn.pl/slownik/2466388/inspiracja> [downloaded 30.04.2015]

Designers’ inspirations and motivations

For fabric designer Magdalena Komar, anything can be an inspiration for design: an album viewed, holidays, original photos of nature. Designer Jörn Dallmann shares a similar view, saying: “We, designers, and all people who create, build and so on, are always influenced by the surrounding products. That is why we take inspiration from things that already exist¹⁴. The issue of inspiration is explained more broadly by the architect Carlo Bartoli, who says: “I believe that there is an inborn desire, which has always existed in human nature, and the need to interfere with the environment in order to improve it. (...) There are certain beliefs that always inspire my work: firstly, the awareness that the designed object must be significant, but not aggressive, that it should fit into the environment, as if it had always been there; secondly, a well-designed item must meet specific requirements and show new content; that design is embodied in the language of forms, which, analogically to the language of words, derives its meanings, on the one hand from tradition and on the other hand, from innovation¹⁵. Designer Antonia Astori believes that “the source of the design, meaning the philosophy of design planning as a whole, comes from a particular perception of the world that comes from an individual’s roots. It is how the individual responds to collective demand through individual poetics¹⁶.

How do I personally understand and define design and inspiration?

¹⁴ correspondence with designers for the purposes of this publication

¹⁵ *Ibidem*

¹⁶ *Ibidem*

Another hour that has passed, a fulfilling part of life, brings the artist closer to the “end”. So, if we are aware of the passage of time, we are more consciously devoted to the work that materializes in the course of work. From my perspective, I believe that during the implementation of the project it is not important whether an individual proprietary product or a team project is created (in an industrial environment we encounter a team work model), it is significant that the mechanisms in the mind of the creator responsible for building have been awakened and should be used in such a way that the effects of creative work bring fulfilment to the author. Designing is a process of permanent construction and materialization of thoughts that seem worth the ongoing process. It is an independent idea that is usually opposed by the immediate environment and a large part of the world in which we argue with our existence on a daily basis. The objection in question arises when we have a specific observation to convey, a created work, it is a sign that a unique thing is being created. The most crucial elements in designing are faith and conviction that the realized idea is right. Thanks to this level of thinking, inspiration arises among everyday joys and sorrows, among ups and downs. The spirit and matter coherently composed in the life of a creator can indicate the multidimensionality of the created works. The prerequisite for designing good things is the reasonable belief that what you do is done well, you express yourself consciously. In this sense, inspiration to create a design may mean an intangible product of the imagination that cannot be touched, clarified or fully illustrated. It’s like a good spirit looking after an important creative time. This undefined existence allows for the



Carera chair (designed by Krzysztof Gron), registered industrial design, prototype 3D printing

materialization of an idea with the passage of time, which may become legible at the next stage of development.

A very valuable source of design inspiration is the designer's artistic activity, motivating him to constantly seek and dissatisfied with knowledge. Striving for self-realization with the help of various types of art means that the designer draws from the world of art and by contacting the works of other artists, he can lead a polemic in which the works materialize later.

Since the industrial revolution and the beginnings of modern industrial design, design activities have gradually become a fusion of rigid corporate procedures and artistic creativity. It is precisely because of the artistic dimension that it is forbidden to provide normative standards for all elements of the design process. You have to leave space for the creator's intuition and experience, which probably have the greatest impact on the final shape of the project. For this reason, the profession of a designer requires continuous enrichment of one's knowledge and gaining new experiences. This can be

guaranteed by contacts with research centres, books, specialist magazines, furniture exhibitions and the constant search for other training opportunities.

On the other hand, work on behalf of the manufacturer has its specificity, which means that the designer must think and act in a practical way, verify the correctness of his assumptions and the feasibility of ideas, and obtain acceptance of their utility value.

As designers Jan Wertel and Gernot Oberfell argue, in this respect "everyday work in a design studio is very different from life at university. Instead of working on one project throughout the semester, you have to generate multiple variants within a few weeks; you need to work with people from other industries, such as engineers and marketers, and with customers. You also have to be able to give up ideas that are not good enough or do not fit the brief"¹⁷. The condition for successful cooperation between the designer

(who prepares the concept) and the industry (who implements this concept and translates it into mass production) is that both parties recognize the main goal, which is meeting the expectations and needs of the recipient.

Trends and fashion

When searching for design inspiration, one must recognize that their centre is a creative mind and a kind of competition, as well as natural processing and considering the topic in terms of emotions and forms. Moreover, the contemporary art of design is based largely on the legacy of previous eras and on technological development and progress. At this point, one cannot fail to mention trends and fashions. Art history textbooks show how much has happened since the mid-nineteenth century in the field of designing the form of utility objects. Industrial design experienced its ups and downs, various directions and creative groups emerged, nevertheless the priority was always to meet the customer's needs. On the other hand, following fashion – *volatile* by definition – does not give any guarantee for the market success of the

¹⁷ correspondence with designers for the purposes of this publication

product, especially its long-term success. On the contrary, fashion appears suddenly and changes quite quickly (hence the seasonal popularity of certain shapes). However, if trends were to be looked for, in recent years, there are signs of a crisis in the utility form. It is influenced not only by the economic situation of individual countries, the lack of funds for research and development and new implementations in many areas of industry, very cheap and often low-quality products from the Far East (in addition, often produced in an inhumane manner, using child labour, or hired workers receiving starvation rates), but also a reevaluation of existing trends and a change in the ways of presenting the utility form. There is a sense of waiting for “new”, for ideas devoid of shocking elements. It seems that many people are looking for calm forms, moderate extravagance, human orientation, in a word, forms that give a sense of warmth and identity to the individual. This “new” is presented in an unconventional and now standard way, with the help of new media, that is the Internet, devices and software coupled with a strong opinion-forming medium.

Trade fairs are very inspiring, they allow designers and producers to verify their own market position. This is extremely important and valuable in any industry. New products displayed at trade fairs become a pretext to conclude commercial cooperation agreements with distributors and establish new contacts with designers and cooperators.

On the other hand, trade fairs also carry dangers, e.g., in terms of copying new product designs by unfair competition. For this reason, more and more companies decide to present new products during independently

organized events, closed at the premises of their own companies.

The trap of “redesign”

What is redesign and how is it defined? In short, it can be said that it is a redesign of products, usually from the offer of a given company.¹⁸ The purpose of these activities is, inter alia, the desire to change the customer’s perception of the product, and thus increase interest in it. As part of the redesign, the form and often the functional sphere of the product are changed. Thanks to this, the product gets its “new life”. When designing each product with mass production in mind, you need to take into account its “viability” and try to determine how long it will enjoy increased interest of recipients. This is an extremely important question affecting the assessment of the “effectiveness” of the product, the measure of which is the comparison of implementation costs with possible sales revenues. Currently, a product’s success is also measured by its ability to generate (positive) emotions and the strength of its emotional impact on customers and the market.

Every manufacturer asks himself the question about the “viability” of a product and wonders to what extent the designer, his experience and creative sense can be trusted. There is no way to know the correct answers to these questions. You can only support project activities with additional market research.

Market research is nothing more than an analysis of similar competitors’ products as well as business talks with distributors, market questionnaires (additionally internal sales analysis). Good performance of these activities should make the sale of a given product grow after it is introduced to the market, until it reaches the level planned by the manufacturer. The product ought to remain on the market for some time until it enters its declining phase. Already at the moment of the greatest successes, a redesign should be considered in order to maintain interest in the product until its successor is introduced. Sometimes it is enough to slightly change the shape, expand the range of additional options, or introduce new finishes (e.g., upholstery). Successive versions of the product prepared by sales and accounting employees provoke the following questions: at what point will commercial creativity be exhausted? Is a designer needed?

My observations show that attempts to revive products in a “lifting”¹⁹ version are constantly practised by producers. They are motivated to do so by the illusory hope of savings in the implementation of another modified project, the desire to eliminate the high costs of preparing new equipment, remuneration for the designer. Many believe that “refreshing” a product also eliminates the risk of being rejected by the market.

A closer look at the “gains” and “losses” related to the redesign leads to the conclusion that, unfortunately, the latter prevail. It is true that the financial costs will be lowered, but the company’s image will deteriorate, it will

¹⁸ redesign – convert a project, make a new project [downloaded 30.04.2015], <http://pl.bab.la/slownik/angielski-polski/redesign#tr>.

¹⁹ in my term, lifting has a negative connotation.

be perceived by recipients as “imitative”, unable to offer something new, innovative. Clients are searching for attractive projects with practical solutions. In the long run, they are not interested in the constant “modernization” of already known products.

Product redesign is very often carried out in the company environment as part of internal cooperation between employees of construction and sales departments. This type of implementation practice usually results in products that do not have a specific design thought. They are often “inspired” by products shown by competing companies at trade fairs, they use similar forms and design solutions. It happens that their own models are modified, and this is encouraged by the ideas of salespeople and customer opinions. The resulting products are called “mutants” in environmental jargon. They are in fact a form of “stopgap solution” in the commercial offer of companies, they are the implementation of immediate needs. In the long run, the design pathology will negatively affect the company’s image. Such solutions should be avoided!

Producers, convinced of the value of the products created in the redesign process, prepare full promotional support for them – catalogues, leaflets, CDs with drawings of solids saved in CAD files and distribute them to stores, architects and people responsible for arranging public utility and residential interiors. As a result, “weak”, non-descript projects are massively introduced into the social circulation.

To avoid the negative effects of unsuccessful attempts to redesign a specific product (a question can be asked here whether a redesign carried out

by another designer can bring interesting, “fresh” solutions?). Young adepts of the art of design should be explained during classes at universities the essence of the idea of redesign, show unsuccessful examples of this type of activities on specific examples, and point out the possibilities and pitfalls related to “refreshing” products from the company’s offer.

Summary

A chance for novice designers may be direct cooperation with micro-enterprises or craftsmen who aspire to operate on the market with their own designs. As part of it, young artists can get the opportunity to redesign the existing forms from the company’s own offer. A successful idea may result in a proposal to prepare original projects.

As part of the considerations on contemporary design, in all types of industries, one can ask whether “artistic” design really works? Another question is who designs, for example, cars from the medium and economic segment, furniture, style of household appliances, electronics or other everyday articles? Many will answer the first question “yes it works” and will refer to examples of utility models. Nevertheless, most of them will certainly be intended for the “higher” segment of the market. The perverse answer to the question about car and household appliances frequently asked by designers will be: accountants and sellers are responsible for designing items for sale in the “medium” and “economic” segments. It sounds surprising, but there is much truth in this statement. After all, as mentioned earlier, the implementation of specific products to the offer is determined by costs (the role

of accountants) and the presence of similar products in the competition’s offer (the domain of traders).

These words can be seen as ignoring the role of the designer and the value of the design process, an attempt to eliminate the designer from cooperation, replace him with a virtual designer using the achievements of technology. In reality, however, there is no desire to ignore the role of the designer or find it redundant. It is simply an attempt to look at the determinants of contemporary design from a different angle, an attempt to provoke a discussion on the role of a designer in the future. A role that outlines a new image of the designer and his predisposition to create the immediate surroundings, a new reality. Do designers create new needs among users? Yes, when designing new media, generating new trends and behaviours, new demands are created. Why are designers, creators the perpetrators of it? Because they are the ones who experiment and are exposed to failure, but at the same time deserve spectacular success.

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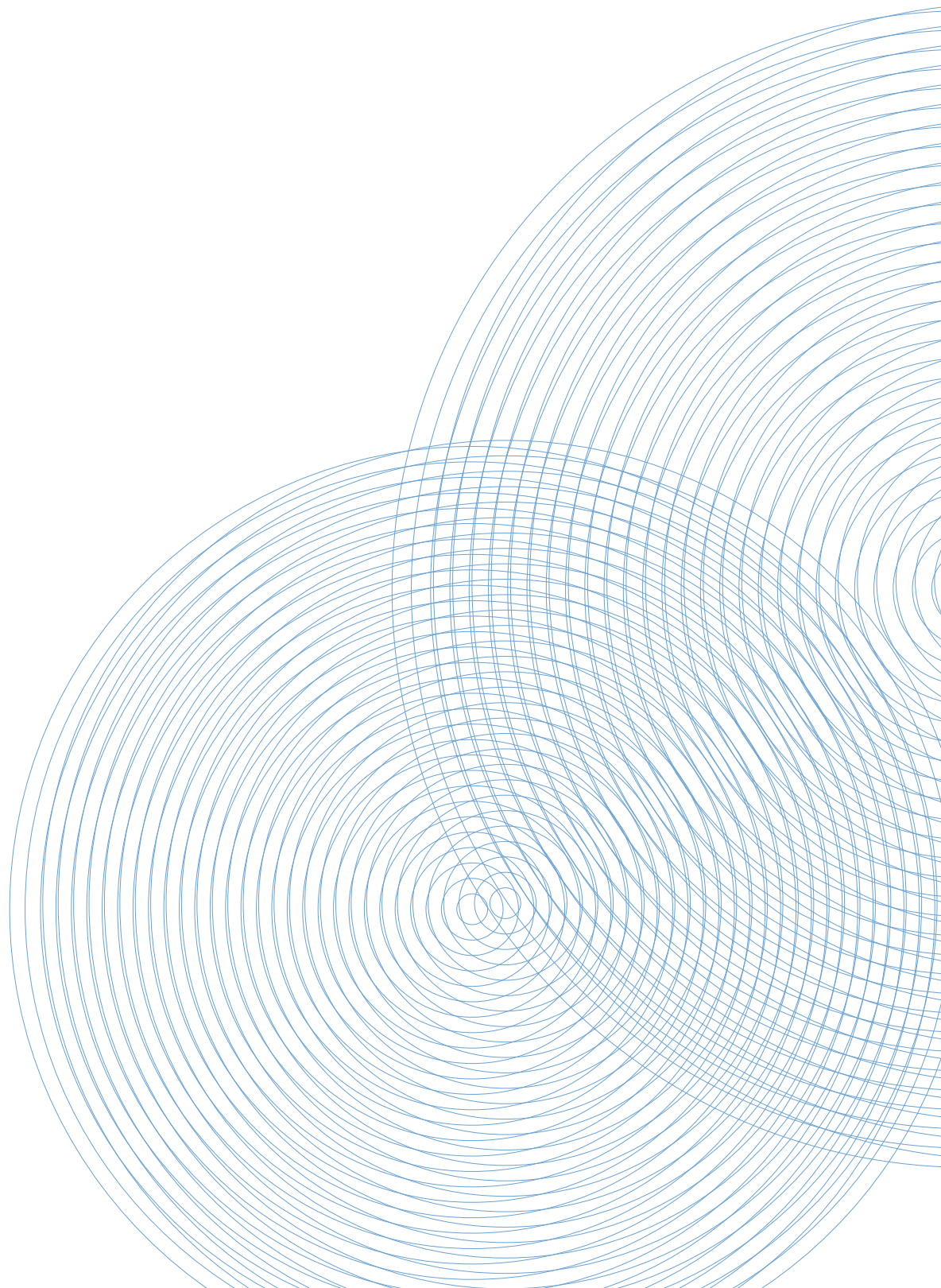
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correspondence with designers for the purposes of this publication





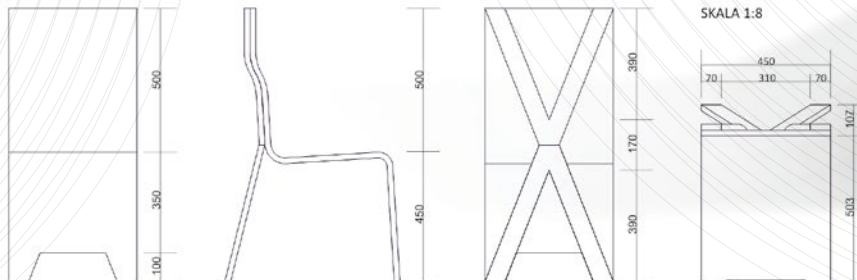
A set of chairs for the PAGED company by ANNA WILK
Course: Basics of Furniture Design
Interior Architecture I, semester 4,
academic year 2014/2015

→
Furniture intended for seniors by
KINGA KWIATKOWSKA
Course: Basics of Furniture Design
Interior Architecture I, semester 4,
academic year 2014/2015





Chair for the PAGED company by
 KATARZYNA BĘDKOWSKA
 Course: Furniture Design
 Interior Architecture II, semester 1,
 academic year 2014/2015

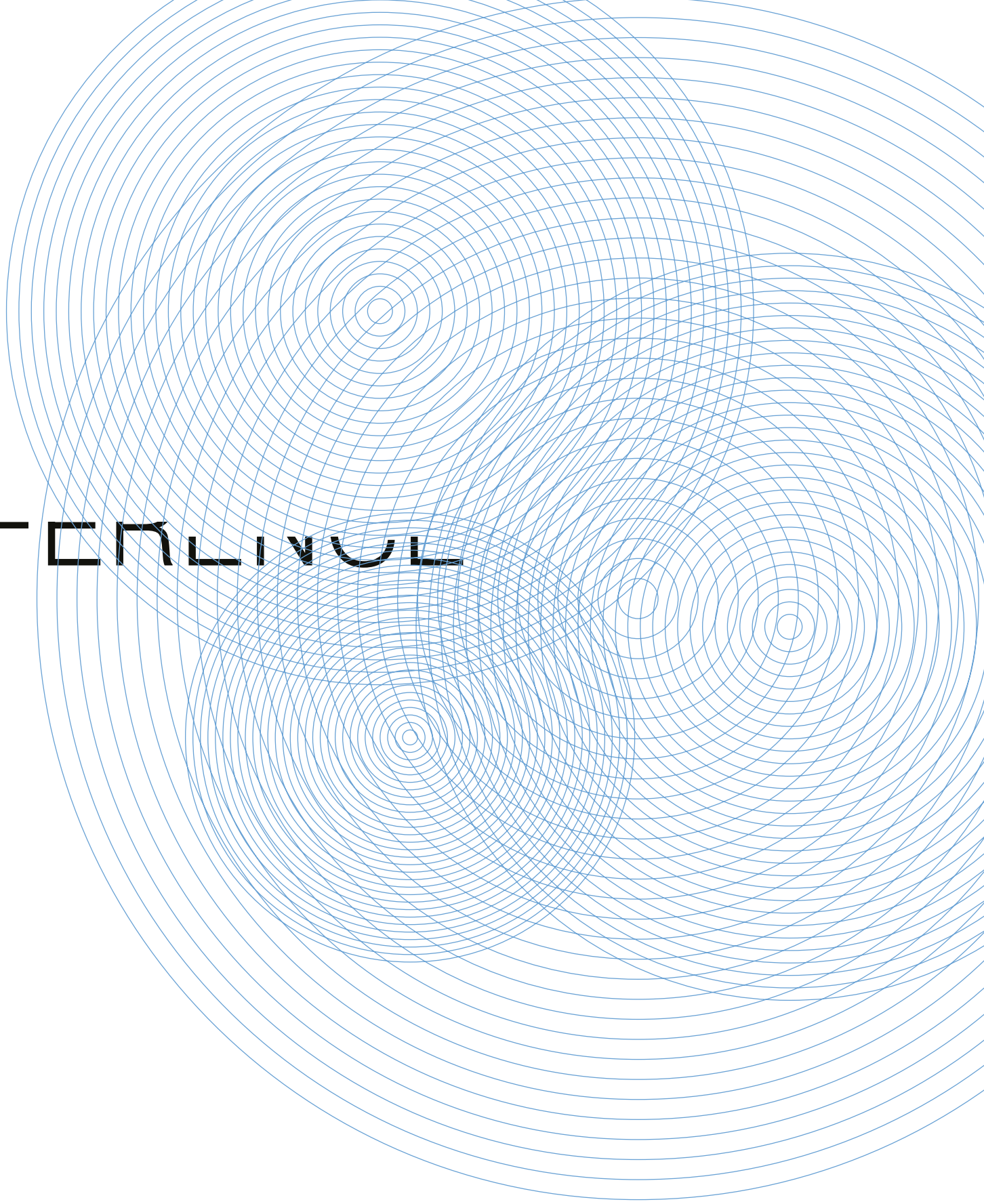


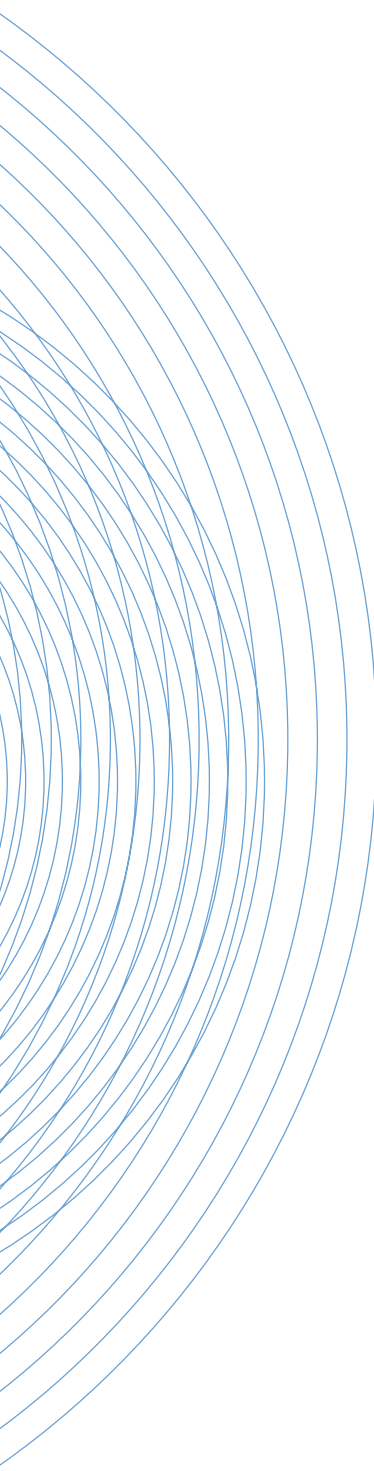
INITED

78 → 79

Creation of design and
its technical conditions

GENERAL





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Creation of design and its technical conditions

ABSTRACT

Nowadays, the dependence between the author's design creation and possibilities of its accomplishment seems to be a field of discussion about the degree of the impact of their particular elements. The opportunity for confronting the design concepts with the implementation reality depends, to a large extent, on the authors' predispositions and their current state of knowledge and expertise. These days, the field of design arts daringly proclaims its philosophy based on utility and functionality values, it is also strictly connected with industry and is on equal footing with other fields that shape the space that surrounds us, always emphasising the uniqueness of the author's own creative design. The knowledge of up-to-date implementation techniques and technologies, combined with the creative element, may hinder uncontrolled explosions of creation or auto-creation. It seems that in such cases the design creation attempts

to achieve a certain balance, a state of equilibrium between technical prerequisites and the author's ingenuity, between the youth and freshness of ideas and experience in following patterns that have been reproduced many times. The accomplished projects in the field of design arts have always been reflections of individual creative skills and current possibilities offered by implementation techniques and technologies. Progress in the art of design is possible thanks to gradual development and improvement of construction materials and implementation methods.

Introduction

The connection of design arts with architecture and technology seems rather clear and quite obvious. No architectural object, material object, nor any modelling in space is able to free itself from its determinants, e.g. the construction possibilities inherent

in the material, the dependence of the undertaken construction solutions on the technology, with the simultaneous determination of the state of knowledge and the ability to use it. This interdependence has always been known and occurs both in the times of primary manufacturing and design art, as well as nowadays, in the era of virtual spaces, rapid prototyping, composite materials construction, ending with nanotechnologies. The degree of technological advancement usually strongly determines the product, influencing its functional, utility and construction solutions, as well as artistic decisions.

In recent years, the development of modern techniques and production technologies has been widely observed. It also touches upon the areas of project activity, which so far on some levels have been associated only with artistic activities. Dynamic changes concern in this regard the areas of design arts. In the previous understanding, interior architecture and design functioned as art that in some respects was treated as decorative art or a specific type of "aesthetic engineering". However, contemporary design boldly presents its

philosophy based on utility and functional values, it is closely related to the industry, shaping the surrounding space equally with other areas. Therefore, it can be assumed that contemporary design and artistic activities have their reference both to architecture, interior architecture and pattern design.

Designing is a chain of never-ending searches, experiments and research. However, an extremely important element of the designer's development is the phase of searching, identifying new areas supporting the design process and time for further thoughts on the projects being implemented. Of course, in practice, there is relatively rare space for extensive research and design simulations, unless it is required by formal and legal factors applied to the project. Nevertheless, the necessity to implement subsequent design tasks on time often limits the time for reflection on the decisions already made. As Gibbs writes, design and the entire creative process constitute a relatively time-consuming and committed course of action. It often tempts to follow the first idea that comes to mind. However, it should be emphasised that it is very important that the designer should constantly look for alternative solutions, creating new ones that may bring new, more beneficial solutions. The possibility of confronting one's own design concepts with the executive realities largely depends on the designer's own predispositions and the current state of knowledge.

Analysing the variety of materials, techniques and methods of processing, it can be concluded that the offer of techniques for the field of design arts in terms of the possibility of shaping new objects is large and is constantly growing. The current pace of these changes

exceeds the perceptive capabilities and even human needs, and therefore, apart from the undoubted positives, it creates many threats. Defining these hazards, anticipating and devising ways to react to them is part of the philosophy of technology and design.¹ However, the combination of the current state of knowledge and design predispositions allows for shaping the architectural environment built by man, operating on a macro to micro scale. Searching for and defining the mutual relations of aesthetic values in relation to functional and constructional values is justified in every design dimension, because beauty does not mean "beautiful" form, which is a matter of style, but refers to the beauty of the content in an adequate and economic form. There was only one objection in the philosophy derived from the Bauhaus – aesthetics is determined by the functional side of the object, not the other way around. This principle has permanently determined the plane regulating the dependence of design on pure art.

Material characteristics

Shaping the product, object, its functional, construction and aesthetic assumptions should be based on detailed knowledge of currently available materials, technologies, and with regard to the individual skills of the designer. Currently, there are many sources of information on the available technologies and materials, specialists create so-called material databases and special tools for designers to choose the right types of materials. In order to recognise and determine the application of the latest "intelligent" materials,

for example: plastics that resemble the touch of leather, transparent concrete, or processed wood (after which it becomes very flexible, soft as fabric), appropriate tools are built, which are based on specific criteria shaping databases on materials. It is difficult to find compact studies that comprehensively deal with the latest materials and technologies. Galloping progress in this area hinders the timeliness of the transmission of information in this regard. Therefore, online platforms and constantly updated databases provide an excellent source of information. The universality of this information helps to drive significant changes in the sphere of the design process. There is a theory that thinking about the material should start much earlier than it usually takes place in the design process, the course of which takes the form of the following scheme: Discover – Define – Develop – Deploy. It is about strategic thinking about the material and transferring it from the level of product development to the initial level, i.e. the level of discovering and creating ideas. The selection of material is made on the basis of a comparative analysis, assessing the positioning of the material, taking into account the intended use and location of the product.²

Nowadays, the space of architecture and design emphasises the interdependencies of form, function and structure much more. The search for synergy between these issues is a constant challenge not only for designers, but also for technologists and material engineers. Contemporary examples of implementations integrating aesthetic values and the latest technologies in

¹ W. Wybieralski, *Rozważania o sześciu „wymiarach wzornictwa”*, 2005

² based on <http://www.design-management.pl/program/nowe-materialy-i-technologie>

the field of materials and construction constitute a multi-threaded image of the design philosophy.

New technologies and tools supporting the design process

The search and determination of mutual dependencies between real and virtual values in relation to functional and constructional values is justified in every design dimension. The expansion of modern digital technologies has resulted in changes both in the theory of architecture, art, design methodology and in the production technologies themselves.³ The designer's work position, which is embedded between the original design creation and reality, along with its latest manufacturing technologies, becomes a standard work model. The exploration of contemporary technology development planes and the use of their latest solutions seem to be significant for the design process currently understood. Nevertheless, in recent years, the development of modern techniques and implementation technologies has been observed not only in all areas of construction. It also concerns the areas of project activity, which so far have been associated mainly with artistic activities. Dynamic changes in this regard also apply to the areas of contemporary design arts. They are related not only to innovation in terms of the product itself, but also to the process of its design and production. Design space begins to be a place for interdisciplinary research, education and design. Therefore, it is

³ M. Helenowska – Peschke, *Architektura cyfrowa – o miejscu technologii informatycznych w kształceniu architektonicznym*, 2009

worth following some of the tools in operation to support this process.

Currently, the search for new, innovative material and technological solutions that will turn out to be more economic, energy-saving and ecological is undertaken more and more often. Design realisations within design arts have always reflected the current possibilities of technique and technology. Thanks to the gradual development and updating of engineering materials and implementation methods, significant progress in the art of design is possible. Both virtual and physical modelling is done mainly on the basis of 3D computer objects, in order to assess their utility functions, aesthetics and marketing value. The application of IT and virtual techniques in shaping architecture, interiors and industrial forms makes it necessary to change the approach to the very process of designing and using these facilities. The combination of virtual reality and physical material generates a material of a new quality, extended with alternative space, interaction and information. Strategic thinking about the material has been transferred from the level of object development to the initial level, i.e. the level of discovering and creating ideas. The material and construction decisions, directly related to the aesthetic value of an object in the light of the contemporary understanding of beauty as a cult of novelty, have come to the fore. Examples of the latest materials and implementations integrating aesthetic values and the latest technologies in terms of implementation and construction constitute a multi-threaded image of contemporary design ideas. New materials and technologies become a generator

of creative thought for architecture⁴, allowing designers to shape and analyse objects in relation to the building material and aesthetic values. The expansion of digital technologies into architecture and design arts as an equivalent tool to conventional communication methods causes a sequence of changes in the approach to the design process. It mainly forced the designer to expand the technical knowledge, resulted in the transfer of a significant part of the project and its implementation into the digital space, as well as increased the space available to the designed object and the perception of contact.

Design creation

The process of education in design faculties involves, among others, familiarizing students with the methodology of design, social, historical, material and technical, as well as many other aspects and conditions of design. The effect of such education is to experience and understand the design process, in which the student evolves from the level of instinctive solving design problems, through a well-thought-out methodological approach, aiming at professional operation in the design industry. All activities in the course of education are aimed at developing awareness that the overall design process is a workflow that supports the designer in collecting and organising information, formulating design procedures and exercising control over this process. It involves solving problems and enforces implementation of design methodology.⁵ However, academic education, apart

⁴ M. Solska, *Architektura organiczna i bioniczna a nowoczesne technologie budowlane*, 2011

⁵ A. Sully, *Interior Design. Theory and Process*, 2012

from defining and making people aware of certain frameworks and procedures, aims to open up students to new experiences, support the process of project creation and foster the development of individual predispositions and creative skills. The awakened imagination, multifaceted cognitive process and an open mind allow young designers to create almost unlimited design. In line with the statement that an architect is a kind of a theatre producer, a man arranging the stage on which our life takes place⁶, the designer manages the space with the use of a whole range of means of architectural expression. An experienced designer manages the available resources very carefully in relation to the available techniques and implementation technologies, bearing in mind how much depends on his design decisions. An adept of design arts, searching for their own forms of expression, discovering new areas of creative interests, and experimenting, often rubs against unreal solutions. It is an eternal conflict of youth and experience that draws patterns in proven solutions, this time transferred to the design ground. The problem seems familiar and basically not worth attention. However, this issue becomes crucial when the following questions are formulated: how to form a designer who is aware of the possibilities and threats, potential and limitations in design work without limiting the creativity and personal characteristics of the artist? How to master the explosion of unlimited creativity without the hard intervention of executive realities? The answer to these questions may be, at least partially, the idea of educating designers, in which they have the

⁶ S.E. Rasmussen, *Experiencing Architecture*, 1962

opportunity to independently verify the effects of their work. The possibility of verifying previous design concepts in relation to the actual possibilities of their implementation and reflection on their own decisions is a very important element of building design awareness.

An attempt to provide a feasible framework for projects in which the author's creation and presentation workshop took precedence over technical realities has a chance to support the development of not only the author's creative personality, but also guide the designer on the path of a professional approach to the design process.

The presentation and analysis of the results included in the study are based on design projects obtained as part of one of the education modules conducted at the Interior Design programme, in the Faculty of Architecture of Silesian University of Technology. During the academic course on Detail in Architecture and Interior Design, students were encouraged to re-analyse, develop and verify selected design problems, juxtaposing their own design concepts with achievable implementation possibilities. The specific tasks presented to students were formulated in such a way that, based on the building element developed in previous design courses (interior architecture design, exhibition design) and shaping the interior space with a specific function, was presented in terms of solutions and construction as well as material dispositions in the drawing scales applicable for the detailed design. The main focus of the design task was aimed at compliance of the implementation possibilities with the design creation – an artistic concept that occurs in parallel with the possibilities of material engineering and the

practical feasibility of the proposed idea. Structural analysis, research and understanding of the relationship between the structure and form of an object is to encourage to make appropriate decisions in the area of material and construction technologies. This type of design activity is to provoke independent and creative engineering thinking and the ability to independently search for materials and construction solutions that are currently available on the market.

Example 1: Mobile exhibition construction of Roman Opałka's works

The conceptual design of the Mobile Exhibition Structure for the presentation of Roman Opałka's works from the "Opałka 1965/1-∞" series, made during the previous academic courses, did not take into account most of the material and construction dispositions at this stage of design. After a thorough examination of the topic in the field of development of architectural and construction details, the author transferred them to the scale of the executive drawing. The task was preceded by a series of analysis of material and technological solutions currently available on the market, which resulted in the verification of some of the previously adopted design decisions. The degree of difficulty of the undertaken task was increased by the need to adopt appropriate, justified instructions, taking into account the possibility of quick assembly and disassembly of the exhibition module and the ease of transport. Subsequent analytical and cognitive activities led to a number of decisions regarding construction and material solutions for individual elements constituting the whole assumption, shaping the object much more consciously than at the conceptual design stage.

———— **Example 2: Supporting structure of a bed integrated with the wall and ceiling**

The earlier project concerning the functional, material and stylistic disposition of bedroom spaces became the basis for further development of an executive drawing for a double bed based on a welded, tubular steel structure anchored in the wall and ceiling of the room. The author, after referring to the previous solutions and after a thorough analysis of the material and construction solutions available on the construction market, made justified design decisions, which were deliberately omitted in the original design study in favour of the author's creation. In this case, the detailed solutions concerning the overall geometry of the assumptions, also shown in axonometric terms, deserve further recognition. The detailed design decisions that have been made are a continuation of the original design, enriching this project with the technical aspect.

———— **Example 3: Staircase suspended on a tension rod system**

The design of the reading room became the basis for the further development of an executive drawing of a solution for suspended staircase on rigid steel tendons anchored directly to the structure of the wooden roof truss of the building. The analysis of the structural system allowed the Author to isolate the main load-bearing elements of the wooden roof structure, which resulted in the preliminary selection of the part of the load-bearing system that would be able to transfer both the loads of individual elements of the stairs and the operational loads. Although the assumptions made in the earlier design study, consisting in proposing a light,

detached from the floor, staircase tread system, have been retained, the decisions defining the structural elements have been verified. The implementation of the task was preceded by a series of analysis of structural and system solutions currently available on the construction market, which resulted in the verification of some of the previously adopted design decisions. In the design study, cylindrical screw connectors fastened directly to the wooden load-bearing elements of the roof truss and treads were adopted.

———— **Example 4: Ramp in a steel structure**

The design of the internal skate park with accompanying functions was the basis for the technical development of a centrally located communication and observation ramp. The review and analysis of the currently available technical solutions led the author to the decision to shape the main supporting system of the ramp as a closed, box-type welded structure made of steel profiles. The ramp was created by joining successive segments arranged in an open oval with a radius of 12 m and 13 m. The ramp ends with a full balustrade with a handrail, which was complemented by LED strips and lighting that emphasise its dynamic and spiral character. The entire structure is supported on the foundation at the floor level and on the reinforced concrete ceiling of the observation mezzanine. The gentle slope of the ramp and its width (2.5 m) allow it to be used both for communication and viewing purposes. The structure of the ramp, which corresponds to the character of the interior, does not visually dominate the interior fittings, on the contrary – it is a perfect complement to the interestingly shaped interior landscape.

Summary

The opportunity to face your own design creations that consciously and thoughtfully take into account technical and material conditions is a considerable challenge for designers. A comprehensive design concept, forcing reflection on the designer's original work, at the same time attempting a multi-faceted view of the design theme, is a good alternative to uncompromising, aggressive verification of creative creation by external factors. Extensive knowledge in the field of contemporary techniques and performance technologies, which occurs in parallel with the creative element, can stop uncontrolled outbursts of over-expression and self-creation. Often, unreal design decisions become real projects by enriching them with detailed and reliably carried out technical solutions. It seems that in this case the design creation aims at some kind of balance between technical conditions and the creativity of the authors, between the youth and freshness of ideas, and many years of experience – working in the field of repeatedly processed patterns. Design realisations in the field of design arts have always reflected the current possibilities in terms of techniques and manufacturing technologies. Thanks to the gradual development and updating of engineering materials and implementation methods, progress in the art of design is possible. New materials and technologies become a generator of creative thought for architecture, allowing designers to shape and analyse objects in relation to the building material and aesthetic values, taking into account the process of design creation.

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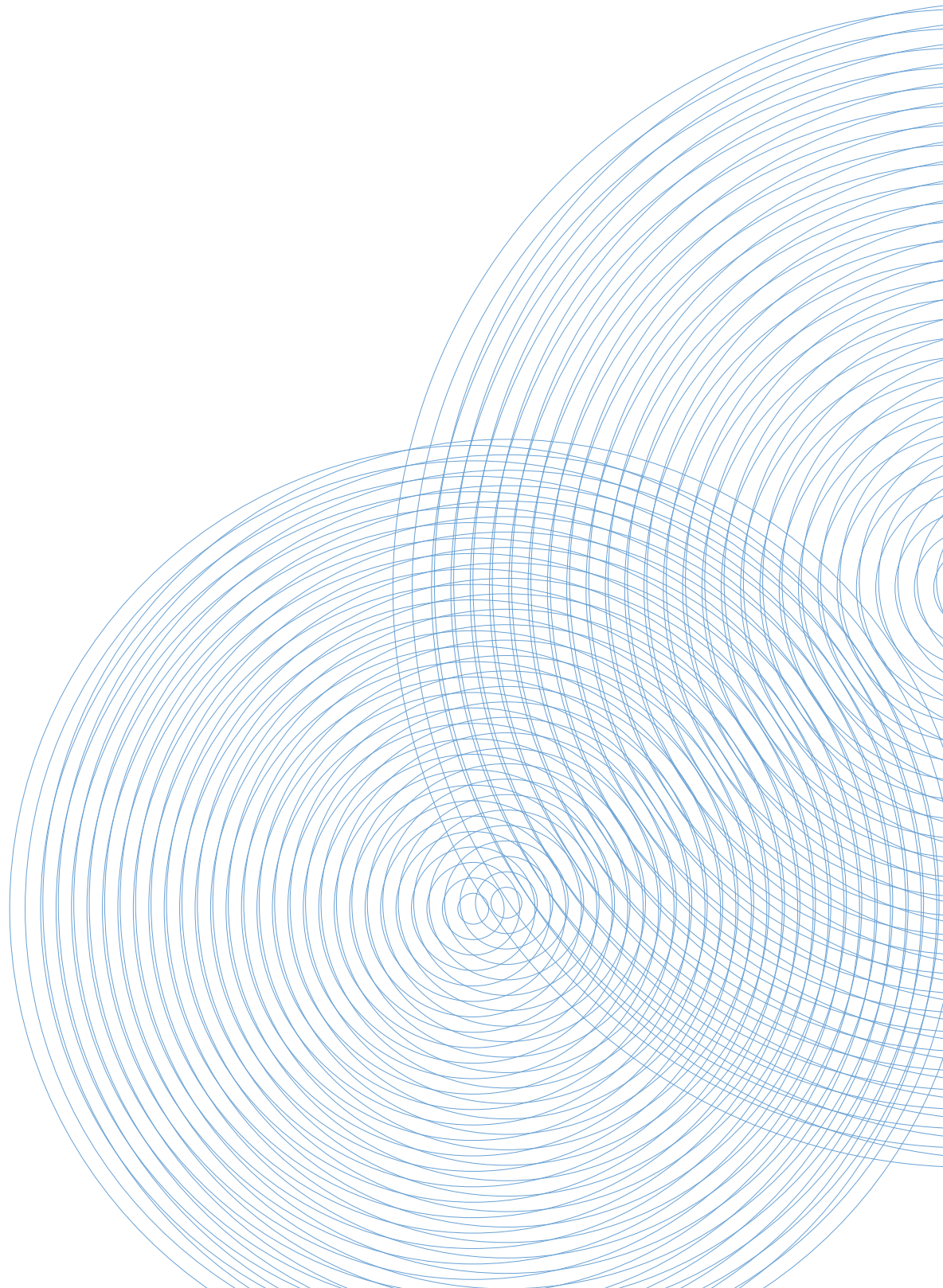
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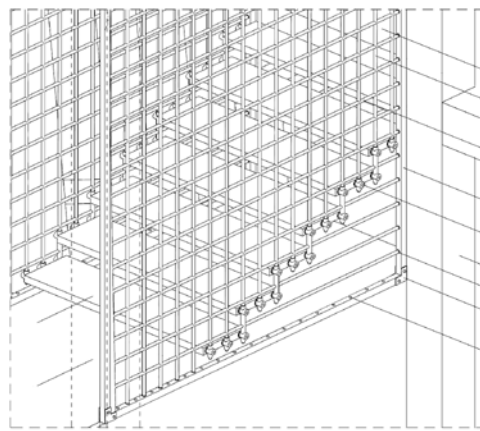
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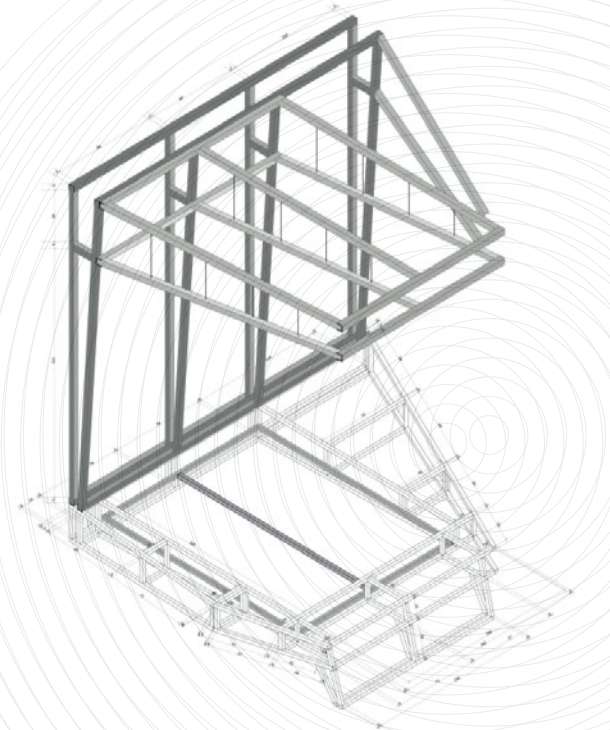




Mobile exhibition construction of Roman Opalka's works by SANDRA JURCZYŃSKA
Course: Detail in Architecture and Interior Design
Interior Architecture II, semester 3, academic year 2012/2013



←
Staircase suspended on a tension rod system by EWA ŁUŻNIAK
Course: Detail in Architecture and Interior Design
Interior Architecture II, semester 3, academic year 2012/2013



↑
Supporting structure of a bed integrated with the wall and ceiling by MONIKA TYCZKA
Course: Detail in Architecture and Interior Design
Interior Architecture II, semester 3, academic year 2012/2013

DETAL ARCHITEKTONICZNY

pochylnia

Rzut detalu, skala 1:20

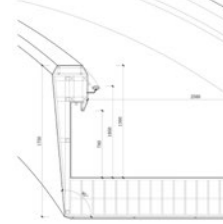
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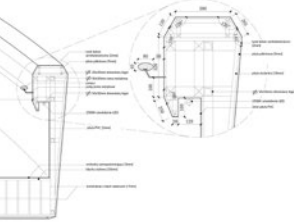
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Przekrój detalu, skala 1:10



Przekrój balustrady, skala 1:5

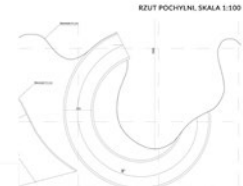
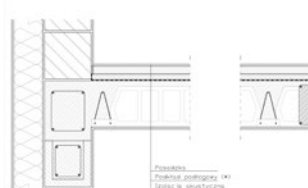


DETAL ARCHITEKTONICZNY
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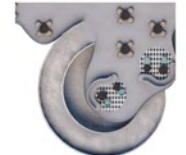
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RZUT POCHYLNI, SKALA 1:100

WIDOK POCHYLNI, SKALA 1:100



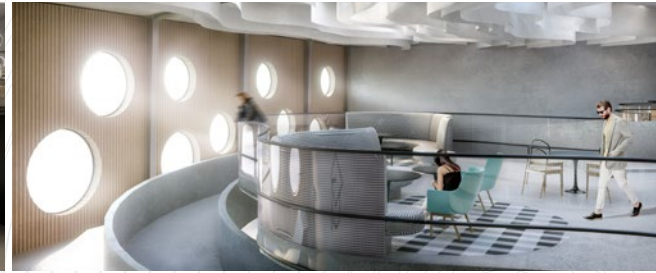
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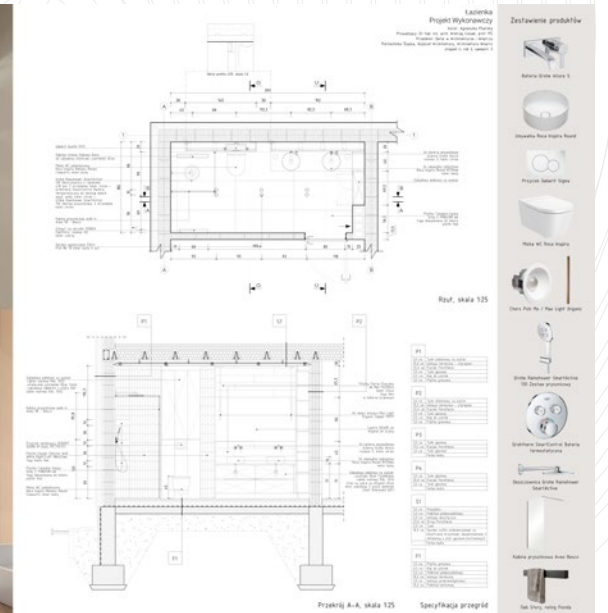
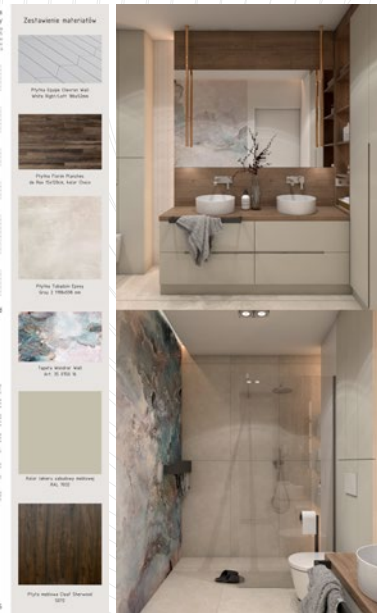
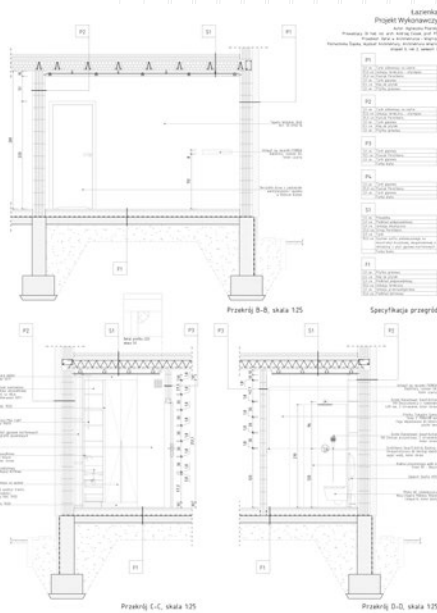
Przekrój aranżacyjny, skala 1:100



Ramp in a steel structure by
AMANDA KĘDZIERSKA
Course: Detail in Architecture and
Interior Design
Interior Architecture II, semester 3,
academic year 2019/2020



Bathroom design by AGNIESZKA
PILARSKA
Course: Detail in Architecture and
Interior Design
Interior Architecture II, semester 3,
academic year 2020/2021

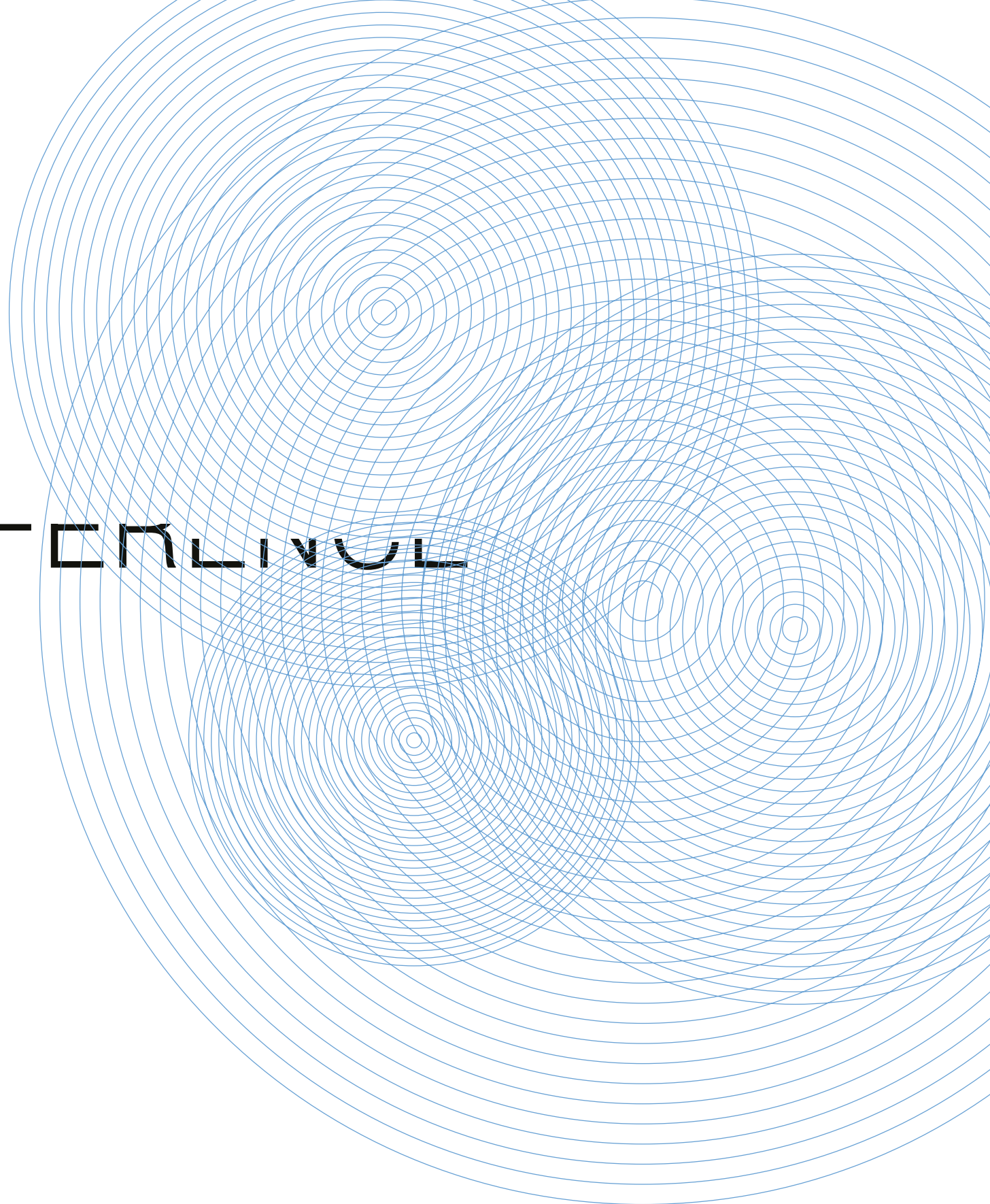


INITED

88 → 89

Drawing – the process of perception, thinking and creation
The role of hand drawings and basic fine arts issues in the process of educating students of architecture

GENERAL





Drawing – the process of perception, thinking and creation

The role of hand drawings and basic fine arts issues in the process of educating students of architecture

Ph.D. Eng. Arch.

**Joanna
ZABAWA-
KRZYPKOWSKA**

ABSTRACT

Hand drawing is an integral part of an architect's work and it has been assisting architects for many years. Despite the advancement of IT, it has still remained a useful tool of design, a way of communication and presentation of the architect's own ideas, a record of the surroundings, a multi-layered way of artistic expression in the search of a new form. It is an indispensable tool of analysis, observations and cognition of the world. It enables the perfection of the sensibility of architects and facilitates finding their own way of expression. Many years of the experience in teaching students of architecture has proved the conviction about the importance of drawing, on the bases of observations and analyses of selected works.

Introduction

A drawing for architects is a means of expression by which they present and explain their design, their architectural vision. It is a communication tool enabling the presentation of the architect's own concept. The drawing process is also a tool for analysing and synthesising the surrounding world used for knowing and interpreting this world. The results of the recorded observations of the environment are in-depth analysis that concern the study of the form, relations and historical or landscape values.

The scale of activities is very wide, from the architectural detail, the design of the furniture through the building, its interior, to the scale of shaping the city. Drawing is a way of visualising, writing ideas with sketches, diagrams, and schemes, as well as a preliminary record of reflections relating to the undertaken considerations or problems. Such sketches and diagrams can be found in the works of Lynch, Alexander, or Leon Krier, who supplemented their works with sketches, clearly explaining the problems brought up in the

books. Sketches of Oscar Niemeyer or Le Corbusier, which formed the basis of lectures, played a similar role. Wiktor Zin also treated drawing as a scientific aid, as "proof of the existence of beautiful things, close to perfection in their form, at the same time explaining in an accessible way what the originality of this beauty is all about"¹.

Drawings of the masters of architecture

By following the architectural drawings of the masters of architecture, which remain an integral part of the project or constitute separate works, one can notice their uniqueness and individuality.

Through their drawings, we can also observe changes in styles and trends in architecture representing dreams of a better world. Among the works we find wonderful imaginary architectural visions, and therefore visionary drawing

¹ Z. J. Białkiewicz: *Rysunkowe posłannictwo architekta piękna i światła, profesora Wiktora Zina*. Czasopismo Techniczne, Wydawnictwo Politechniki Krakowskiej, Kraków 14/2003

both on the scale of a single building and on the scale of a landscape or city.

Charles Rennie Mackintosh, a representative of the Arts and Crafts Movement who had a great influence on the art of presentation, made suggestive perspective drawings of the designed objects. He made drawings depicting the facades of buildings, such as working drawings by Otto Wagner, and works created for exhibitions and competition drawings, such as the parliament building in Helsinki by Eliel Saarinen.

In the drawings, we may also find a modernist exploration of modernity, where the Bauhaus School was of particular importance, and the masters of which had a significant influence on the art of design and architecture of the entire 20th century. The experimental drawings produced at the Bauhaus involved colour theory, geometric abstraction and functionalism, and became world famous. These are the drawings by Antonio Sant'Elia, Erich Mendelson, Theo van Doesburg, architectural expressive, spontaneous and energetic drawings by Hans Poelzig, architectural fantasies by Hans Scharoun, drawings by Walter Gropius Alvar Aalto, Le Corbusier, light, quickly drawn sketches by Erich Mendelsohn or Ludwig Mies van der Rohe.

In the interwar period, utopian visions of futurists and expressionists emerged. After World War II, modernist drawings became more practical and simplified, and a quick sketch came to the fore as an expressive, communicative image.

In the 1960s, there were changes in rigorous geometric modernism, the Archigram Group was established, and its representatives created seductive,

audacious, threatening drawings resembling mechanical creations. It was then that Jean Tschumi's works were created, such as the Nestle headquarters in Paris or Robert Venturi's Vanna House, free sketches of details, furniture arrangements (a house for the mother), exhibition stands for the IMM fair in Cologne 1964 and the works of Verner Panton, the famous furniture designer architect².

Another breakthrough is postmodernism and a return to classic elements of architecture, an example consists the drawings by Michael Graves. At the very end of the 20th century, computer support appeared in architecture. However, freehand drawing still remains important for the creators, as can be seen in the drawings by Norman Foster, Aldo Rossi, the Krier brothers, Daniel Libeskind, Helmut Jahn, Bernard Tschumi, Zaha Hadid and Mario Botta.

As Maria Misiągiewicz writes, "Architectural drawings are a testimony of the culture of some time, a proof of attitudes, approaches, they take over independent artistic values and constitute autonomous works" and further "The path of searching for a new aesthetics led and still leads through drawings-designs of architects. (...) Suggestive ways of drawing design – ways of recording architectural space improve the language of architectural space, enrich the language of the images of buildings, remind of the unlimited possibilities of sensory qualities, expand the image of meanings, and thus keep architectural thought in constant motion. The boundaries of the successive contemporaneity of architecture

² Ibidem p. 143-197

were marked by avant-garde thinking, expressed in drawing records"³.

Teaching drawing and art subjects – didactic purpose

The current profile of teaching drawing, painting and art subjects at the Faculty of Interior Design of the Silesian University of Technology is the result of the acquired theoretical knowledge, many years of observation, and teaching experience that has been shaped over the years. Drawing and subjects related to art issues are oriented towards the needs of the architect's workshop. In the didactic process, appropriate proportions between science and art are visible as two complementary paths of cognition.

Course – Drawing

Drawing is not only a skill, but above all the basis of internal development, noticing and creating features and values⁴. It is a process of perception and creation. Therefore, we are interested in the question Arnheim asks, "If seeing is understanding, what can we understand by looking? To see is to capture some of the most distinctive features of an object – the blue of the sky, the curve of a swan's neck, the lustre of metal, the rectangular shape of a book, and an elongated cigarette. A few distinctive features are not only enough to define what or who the perceived object is, it is also enough for the object to appear as a complete,

³ M. Misiągiewicz, *O prezentacji idei architektonicznej*, Politechnika Krakowska, Kraków 2003, p.68-69.

⁴ B. Siomkajto, *Rysunek i malarstwo. Problemy podstawowe wybrane zagadnienia*. Oficyna Wydawnicza Politechniki Wrocławskiej, Wrocław 2001, p.6.

integrated pattern”⁵. Perception begins with picking up characteristic structural features. “Objects are more than patterns of excitation: they have their past and their future; when we know the past or can guess the future of an object, it becomes something more than a stimulus that causes sensation: it is the embodiment of knowledge and predictions, without which life, even in its simplest form, would be impossible”⁶.

The main goal of education within the Drawing subject is to prepare students to undertake artistic creation tasks using various techniques, skilful use of the drawing workshop for artistic realisations that shape an individual artistic expression, search for own solutions based on the requirements of studio drawing. The aim is to gradually acquire image-handling skills that allow the designer’s own creative ideas to be presented through a drawing.

The didactic process in the field of fine arts from the earliest stage of education is aimed at developing spatial imagination through drawing studies from nature, imagination, interior studies or model studies. The main purpose is to develop art skills and the perception of relations between the elements of space. The tasks are aimed at improving the skills of observation and analysis of space, developing creative imagination with the use of artistic means of expression. Drawings made with various artistic techniques are aimed at practicing plastic sensitivity and a sense of proportion in composing the drawing plane in accordance

⁵ R. Arnheim, *Sztuka i percepcja wzrokowa, Psychologia twórczego oka, słowo/obraz terytoria*, Gdańsk 2004, p.63.

⁶ R.L. Gregory, *Oko i mózg. Psychologia widzenia*, PWN Warszawa 1971, p.12.

with the principles of perspective, light and shade, spatial context, as well as developing the ability to think creatively using drawing. The basic exercise is the study of nature, which is an irreplaceable practical task, an element of education, fulfilling the basic function of practicing the workshop necessary in further work. It allows you to be prepared to solve increasingly complex artistic problems. The drawing process begins with observation which, through analysis and selection, leads to the implementation of the given task.

Practical exercises covering the academic subject – Drawing at the Faculty of Interior Design in the first three semesters include: still life, imaginary composition, interior study and drawing of a living model.

Drawing still life is an exercise aimed at learning the observation and proper compositional development of the drawing area. The problem to be solved is the observation of the structure and arrangement of solids, elements and their interdependencies, ordering forms on a plane (ordering by rhythm or hierarchy), as well as choosing a compositional arrangement (static, dynamic, open-closed composition).

A still life drawing is an observation of nature, changes in light, arrangements of the relationships of individual elements, the construction of form and space, individual plans in a drawing. The next assignment is to set up a tonal hierarchy to emphasise form or perspective.

The next tasks are the composition from the imagination, the exercise aims to stimulate the imagination to skilfully express a specific problem (topic) using a drawing workshop and to search

for own formal solutions. The study of the interior is an exercise aimed at capturing the proportion, scale and correct solution of the problem of form and space in perspective, as well as observing architectural detail.

Act – drawing of a living model is an exercise consisting in making a monochrome drawing of the entire human figure. Attention is focused on a good composition of the figure in the image of the given format, maintaining the appropriate proportions and structure of the figure, determining the correct movement. The next stage is to improve the drawing skills of building a form, taking into account the correct principles of the structure of the human body (skeleton, muscles) and the light system. Another degree of difficulty is the act in the context of the arranged space.

Composing is one of the most important creative processes which organises all the elements that build an image. Conscious combination of elements in the right proportions and relationships allows to create a new reality. “The issue of composition is related to the regularities of visual perception. That is why it is so important to develop the ability to observe and sensitise to dependencies and phenomena in the environment”⁷. The image is created as a result of numerous processes as a consequence of noticing elements important for the perceiver. The processes taking place are analytical and synthetic, they are related to the assessment, selection, comparison and consolidation into a consistent quality.

⁷ B. Siomka, *Rysunek i malarstwo. Problemy podstawowe wybrane zagadnienia*, Oficyna Wydawnicza Politechniki Wrocławskiej, Wrocław 2001, p.54.

Course – Psychology of Visual Perception

The issues related to perception are supplemented and developed within the subject of Psychophysiology of Visual Perception, the aim of which is to obtain knowledge from the cognitive sciences of the field of science dealing with the observation and analysis of the operation of the senses, brain and mind, in particular their modelling such as: physiology of perception, psychology of vision, nature awareness, memory, senses, symbolism of colours, contrasts) and in the field of semiotics (the concept of sign, symbol, allegory).

Understanding the basic issues of psychophysiology and perception in the process of perception enables to learn about their impact on the construction of a visual message. Therefore, the aim is to use this knowledge skilfully and consciously in the creative process of designing. The subject introduces the skill of movement and understanding of basic optical issues (colour contrasts, optical illusions), psychological, semantic and physiological issues (e.g. the structure of the eye, the organ of sight), their conditions, as well as the influence of other stimuli on humans. It allows students to familiarise themselves with the basic issues of human psychology and physiology in the process of perception. It is vital in this respect to familiarise students with the rights of min. continuation, similarities, closing, or manipulating the interpretation of the image.

The programme is implemented on the basis of a series of thematic exercises with the conscious use of psychological mechanisms related to perception, optical illusions, visual illusions and colour. As part of the design exercises,

students create artworks on camouflage, consisting in the unification of the object with the surrounding background, and therefore the shape is camouflaged by the context. Another study is an artistic study, the subject of which is “impossible” illusory architecture, the problem is to study the relationship of plane and space (shape of an object, solid, impossible figures, composition using elements of illusion). These are demonstrations of three-dimensional figures on a plane that are contradictory in their spatiality, i.e. it is not possible to construct their three-dimensional counterparts. Students also carry out works on the issue of the relationship between the figure and the background. Ambiguous drawings arise, showing that the same pattern of eye stimulation can give rise to various perceptions and that the perception of objects is not the same as a sense impression⁸. The drawing automatically changes the content through the interchangeability of the figure and background and the choice made. The exercises covering the subject of Psychophysiology of Visual Perception enables to search for individual solutions and various approaches to the issues taken. Each concept is different, and the works are characterised by an interesting solution to the problem, originality, and often bold vision of the author.

The drawings are made by hand, and the techniques of works are selected individually depending on the subject and the author’s concept.

Summary

Since perception and creation are the basis of each creative process, the task is to bring students closer to the meaning of these processes and make them aware of them, so that they consciously use their skills to create their individual language of communication in line with their own sensitivity.

The purposes of education in the field of Drawing and Psychophysiology of Visual Perception are:

- drawing attention to the essence of drawing and the role of drawing in architectural creativity;
- considering the interdependencies between perception and the creation of composition skills;
- liberating creative invention, exercising spatial imagination, artistic sensitivity and sense: proportion in composing the drawing plane in accordance with the principles of perspective, chiaroscuro, texture and colour, spatial context;
- developing the skill of creative thinking by means of drawing, sensitivity to the role of value and colour as elements shaping and enriching the spatial architectural form;
- shaping the personality of the future architect through the possibility of free and creative author’s expression;
- making a series of artistic works concerning the study of natural forms and spatial arrangements in a specific cultural environment and improving the student’s artistic workshop;
- the acquisition by students of the ability to learn and feel the spirit of the place, creating new architectural values based on the specificity of the region and cultural traditions

⁸ R.L. Gregory, *Oko i mózg. Psychologia widzenia*, PWN Warszawa 1971, p.12.

—— familiarisation with shaping the relationship between architecture and nature in the scale of the building
—— mastering working methods, starting from the stage of context analysis and outlining the idea of a sketch, through the performance of creative work, to the stage of presenting the work.

The scope of the student's work covers topics that take into account the diversity of scales, forms and materials that create specific spatial systems, starting with not too complicated choices, gradually moving to more complex ones. Everything is aimed at educating conscious and sensitive future creators. An important aspect necessary for a future architect is not only to develop spatial imagination, aesthetic sensitivity and technical efficiency of future designers, but also to develop the ability to quickly and effectively communicate their own ideas in their professional work⁹.

The initially tedious drawing exercises lead to the mastery of the workshop necessary for the architect to develop a personal message of the project. Drawing enables to get to know the world, helps to establish relations with the surroundings, and to familiarise with architecture. As Mirosław Orzechowski writes, "The drawing may aspire to be called a universal, common and understandable language. Being an excellent, universal research method of the surrounding world, it also becomes a carrier of information, a synthesis of the broadly understood human creativity"¹⁰.

⁹ Kucharczyk-Brus B., Zabawa-Krzypkowska J., *Rysunek odręczny w procesie kształcenia architektów wnętrz*, p. 7.

¹⁰ Orzechowski M., *Rysunek. Zmysł architektury*, p. 132.

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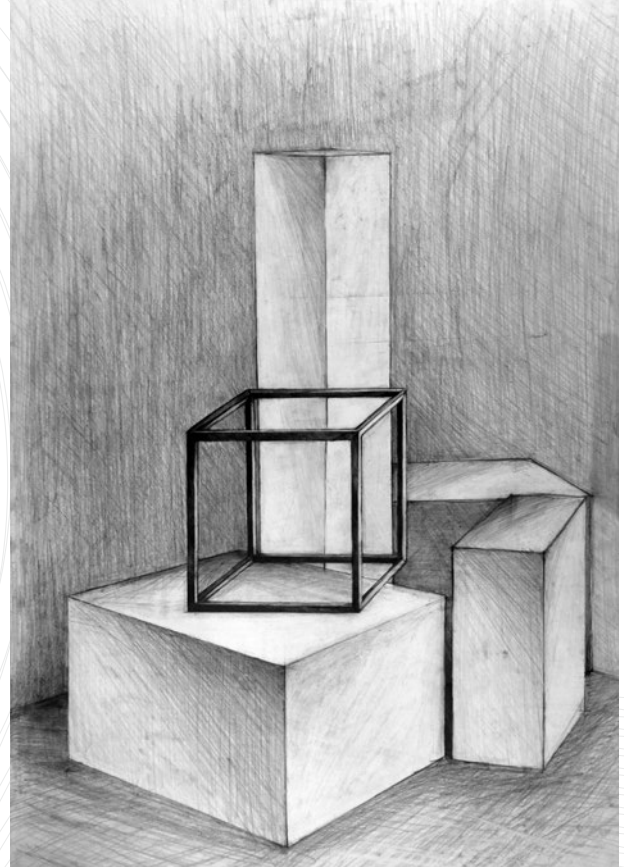
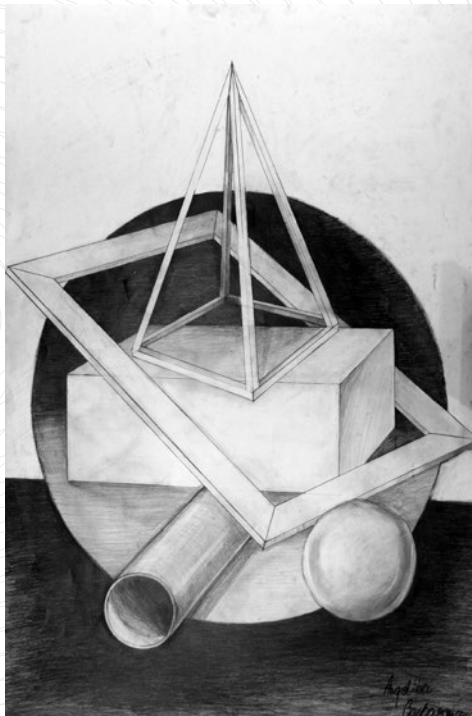
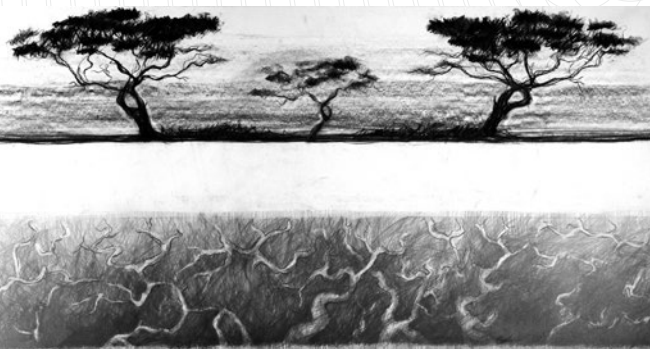
Mizia M. *Po co architektom rysunek? W nauczanie rysunku, malarstwa i rzeźby dla architektów. Wyzwania XXI wieku: Rysować, malować czy skorzystać z komputera*, II Międzynarodowa Konferencja, Wydawnictwo Politechniki Krakowskiej, Kraków 2015.

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Composition in a circle by
ANGELIKA CZUBASIEWICZ
Course: Drawing
Interior Architecture I,
semester 1, academic year
2014/2015

Striped open composition by
SABINA SMARDZEWSKA
Course: Drawing
Interior Architecture I,
semester 2, academic year
2012/2013



Act by SONIA KOLASA
Course: Drawing
Interior Architecture I,
semester 3, academic year
2015/2016



Still life by ANGELIKA
CZUBASIEWICZ
Course: Drawing
Interior Architecture I,
semester 1, academic year
2014/2015

Act by SABINA
SMARDZEWSKA
Course: Drawing
Interior Architecture I,
semester 3, academic year
2013/2014

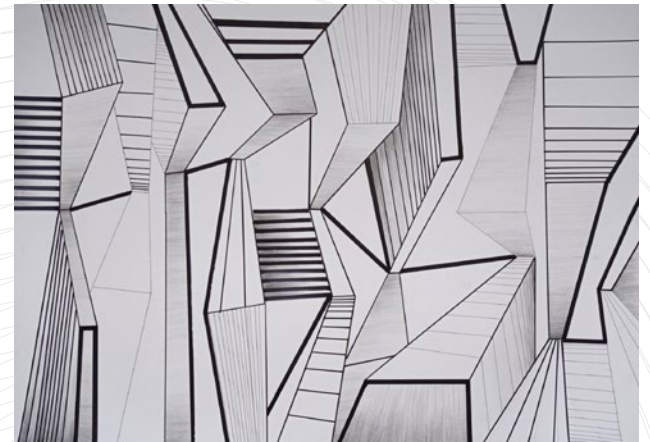
Impossible space by OLIWIA MAJEWSKA
Course: Psychology of Visual Perception
Interior Architecture I, semester 1,
academic year 2020/2021



Impossible space by PAULINA KASZUBA
Course: Psychology of Visual Perception
Interior Architecture I, semester 1,
academic year 2020/2021



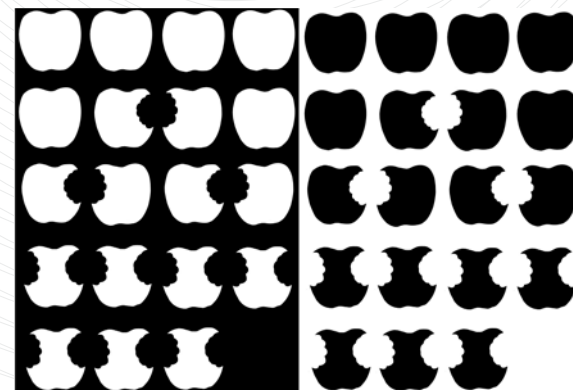
Impossible space by ZUZANNA KNIEŻYK
Course: Psychology of Visual Perception
Interior Architecture I, semester 1,
academic year 2020/2021



Camouflage by AGNIESZKA OCZKOWSKA
Course: Psychology of Visual Perception
Interior Architecture I, semester 1,
academic year 2020/2021



Camouflage by PAULINA KASZUBA
Course: Psychology of Visual Perception
Interior Architecture I, semester 1,
academic year 2020/2021



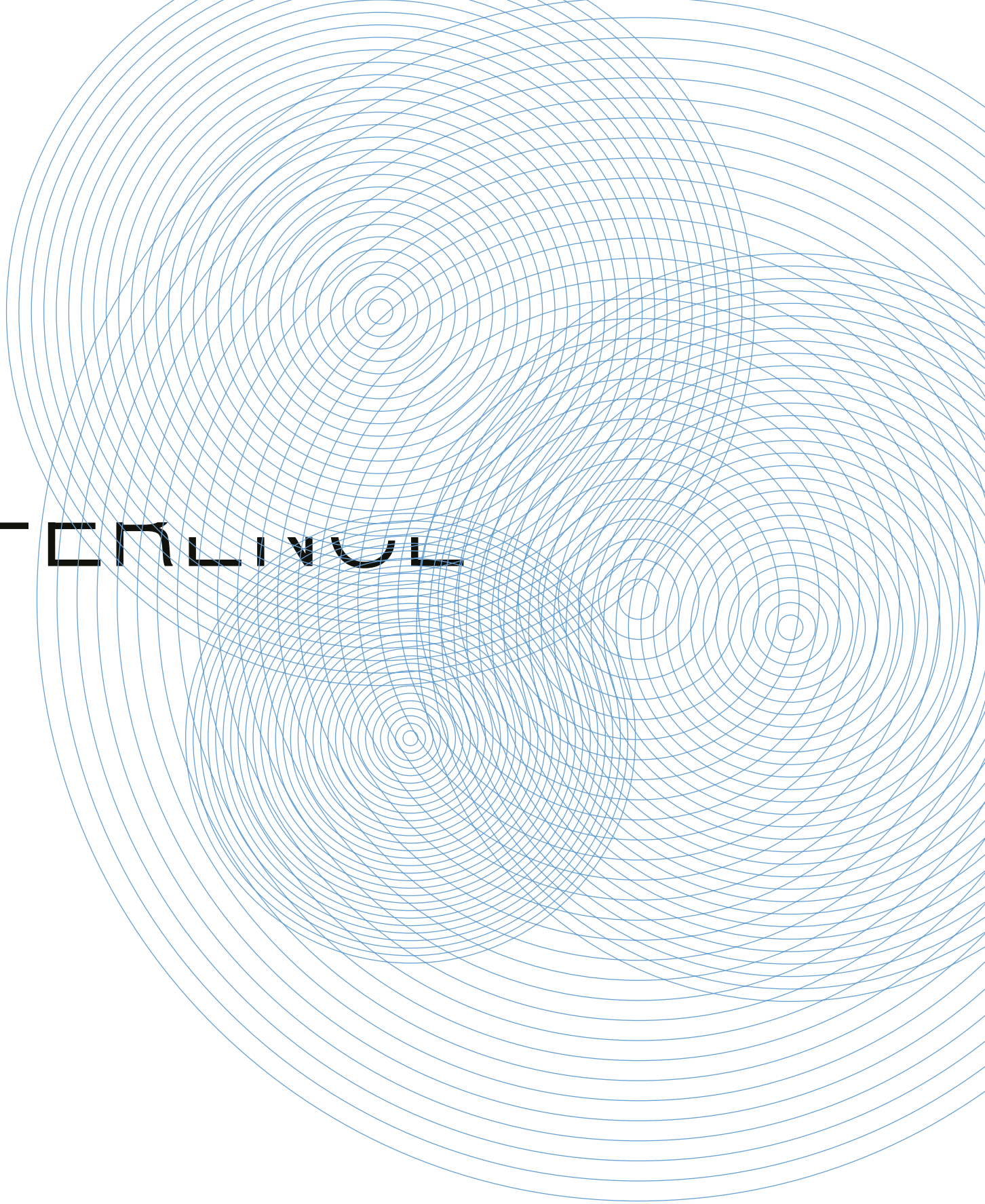
KATARZYNA FRĄC
Figura i tło
Psychofizjologia widzenia,
AW I, semestr 1,
rok akademicki 2014/2015

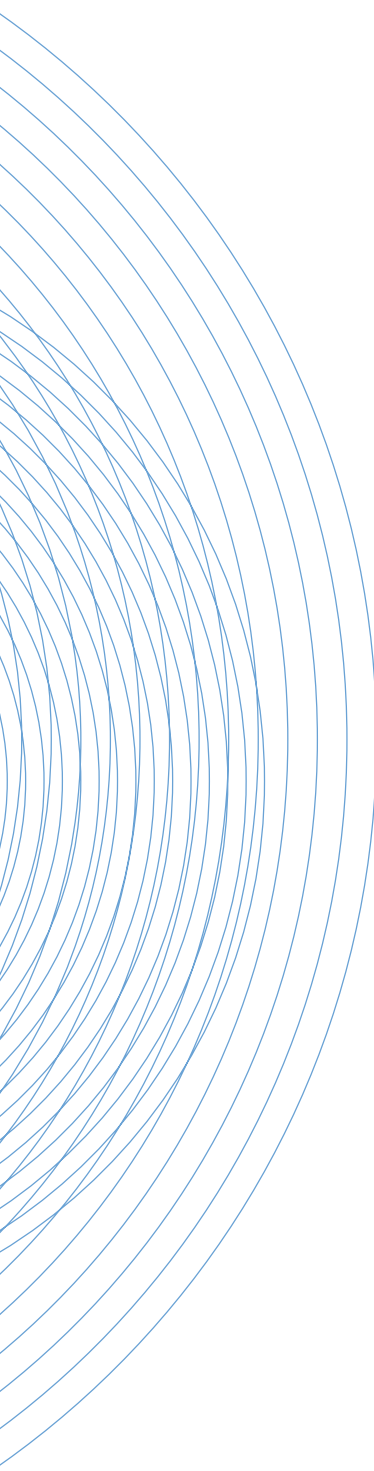
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96 → 97

The connections
between fine arts and
architectural design

GENERAL





Master of Fine Arts

**Adam
STYRYLSKI**

ABSTRACT

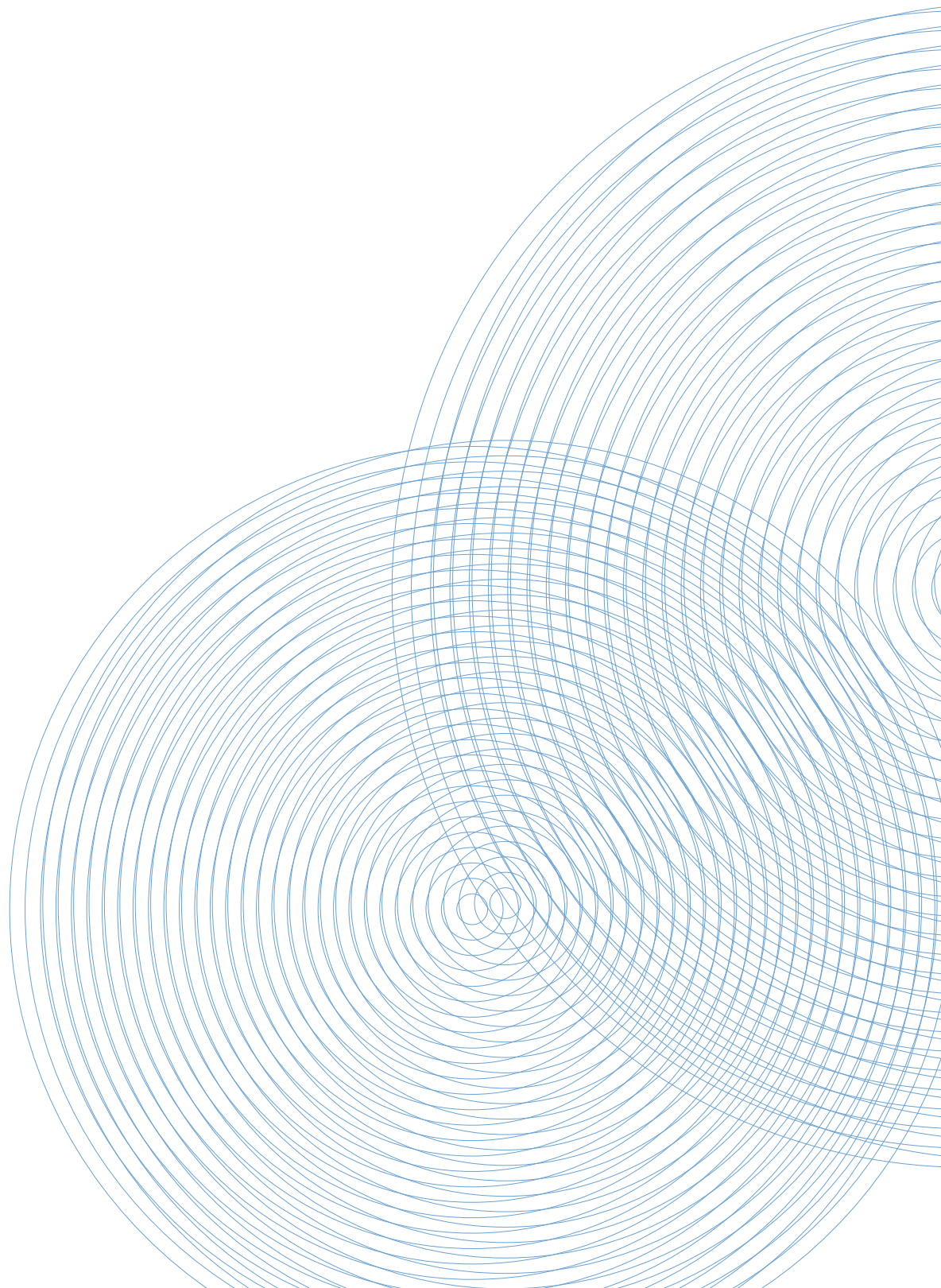
The relations, contacts and co-dependence of the fields of fine arts and architectural design are coupled, and have both an idealistic and a practical dimension. The possibilities of transferring and applying painting experiences to architecture, interiors design or industrial projects have already been recognized, especially the inspiring impact of painting. Another significant dimension is colour as one of the factors that shape the designed space. In this respect, there are also broad possibilities of using “the laboratory of painting”. Conscious and creative ability of using colour in design works, the knowledge of the types and principles of composition and opportunities of using colour on surfaces and in space, are extremely crucial aspects of the architect’s creative and didactic work.

The connections between fine arts and architectural design

The relations, contacts and co-dependence of the fields of fine arts and architectural design are coupled, and have both an idealistic and a practical dimension. The first of them is perfectly expressed by the TV statement by Roman Kurzawski – “My design is derived directly from painting and sculpture”. Thus, it proves not only the possibility of transferring and applying painting experiences in architectural, interior and industrial design, but also the possible inspiring role of painting. The second significant dimension is the issue of colour as one of the factors shaping the designed space and in this respect there is a broad spectrum of possibilities using this “laboratory” of painting. The role of fine arts, including painting, is fully manifested and closely related to didactics. In the programme covering the academic course of Painting at the Department of Fine and Design, the main aim of teaching is “conscious, creative ability to use colour in design work, knowledge of the types and principles of composition as well as the possibilities of using colour on surfaces and in space.” The programme objective formulated in this way takes into account the problematic

issues at the interface with other academic subjects. Knowledge of the theory of composition and its types is combined with drawing which is the basis of all artistic and design activities, as well as it is related to graphics and scenery. The acquisition of practical skills in using colours, the perception of colour as a quality, the ability to use it in design work and the awareness that it is one of the factors shaping the architectural interior is associated with design and scenography. Finally, understanding the impact of colours and their individual combinations on a human being, person psyche is clearly related to the psychophysiology of vision and industrial design. All these are interdependencies resulting from the similarity of some tasks and related problems. The academic subjects based on Painting Course include Art Techniques in Architecture and the Issues of Colour and Painting in Architecture. Taking into account all technological conditions, it is in fact a continuation of painting issues in which skills, experience and knowledge of colour techniques are necessary. The first one concerns the issues of decorative arts in architecture, both in the

architectural interior and facades. Its aim is to draw attention to the complexity of the issue and its contexts, and above all, to develop the ability to harmoniously incorporate plastic decorations into an architectural interior. The second of these subjects deals with the development of aesthetic awareness by learning about the issues related to the visual aspects of architecture, including colour tasks in design work. They exist only in architecture, which is their natural environment, therefore they have integrative values. This is what Le Corbusier wrote about integration, or rather synthesis, in "Esprit Nouveau" – "Architecture and fine arts should not be seen as opposing each other – they constitute a whole, coherent and compact unity". In Poland, Bohdan Urbanowicz claimed that there is no such concept of integration, however there is cooperation. It should be noted that many issues encompassing both types of arts are common, identical or intertwining, and academic artistic subjects such as Painting play an important role in educating the creative architect. Since it is a text about the connections between architectural design and fine arts, especially painting, in conclusion, a quote from the painter's statement reflecting their essence – "Function can go hand in hand with beauty, as long as it is not an artificial addition but an integral part of a given thing" – Georges Mathieu wrote in "Elle". This statement of undoubtedly universal meaning may also apply to the subject matter of this study.





Still life by ROKSANA PIETRYGA
Course: Painting
Interior Architecture I, semester 3, ac-
ademic year 2013/2014



Still life by JUSTYNA KASOLIK
Course: Painting
Interior Architecture I, semester 4,
academic year 2013/2014



Train station in Sławków by MARZENA
PIWOWAR
Course: Outdoor Painting
Interior Architecture I, semester 2,
academic year 2011/12



Interiors. Colour ranges by LAURA BĄCZKOWICZ
Course: Colour and painting in architecture
Interior Architecture II, semester 2, academic year
2013/2014



House in Sławków by ANNA WYSŁUŻAL
Course: Outdoor Painting
Interior Architecture I, semester 2, academic year
2011/12

Figure study by JUSTYNA SPYRKA
Course: Painting
Interior Architecture I, semester 4,
academic year 2014/2015

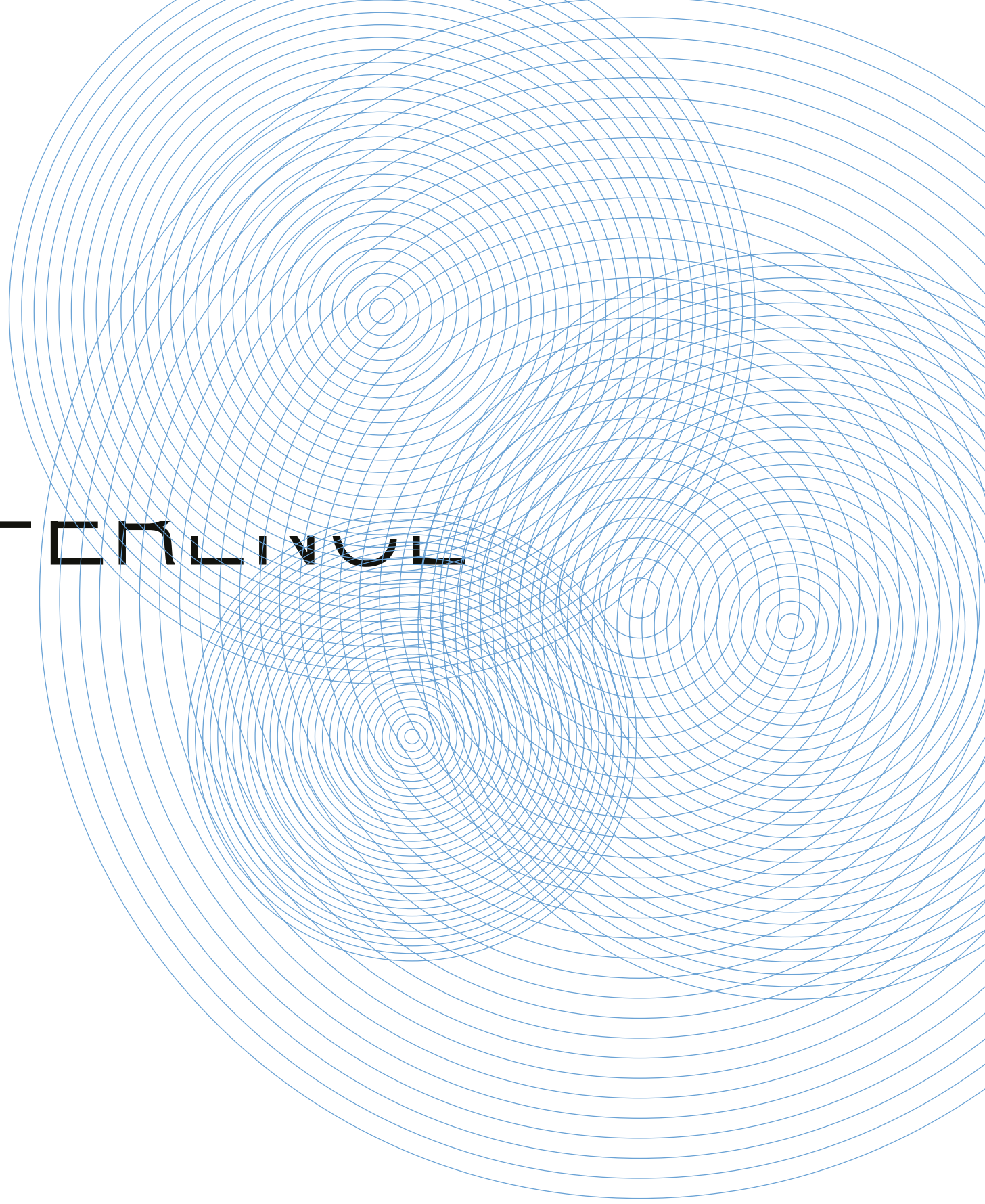


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102 → 103

Fine arts in the city
space – selected
examples

GENERAL





Fine arts in the city space – selected examples

Ph.D. Eng. Arch.

**Beata
KOMAR**

Prof. of Silesian University
of Technology

ABSTRACT

The presence of fine arts in the city space calls for the definition of fine arts over the ages, of their function, integration and adjustment of traditional fine arts techniques to the requirements of contemporary cities, as well as references of the theoretical assumptions to the teaching process. The work was created on the basis of the following research methods: literature analysis, *in situ* studies, interviews and observation of the author participating in the didactic process conducted by the Department of Fine Arts and Design at the Faculty of Architecture of the Silesian University of Technology in Gliwice.

Key words: fine arts, function, integration, city, the curriculum.

Introduction and definitions

Considering the phenomenon of fine arts in broadly understood architecture, one can come to an interesting conclusion that from the dawn of history, visual arts have played an outstanding role, the role that was not limited to decorativeness, but carried with it a baggage of information about the culture and societies in which they were created. Art was born with the development of human civilisation. It is presumed that at the beginning it performed primarily a function related to magical rituals, which was preserved among primitive peoples.

Fine arts have been used since the nineteenth century to describe the areas of artistic creativity, perceived visually, including architecture, sculpture, painting, graphics and artistic craftsmanship¹.

The word art (Latin *ars*, Greek *techne*) in ancient times and the Middle Ages

meant as much as the ability to act, to perform something according to the rules, i.e. crafts were considered to be art (painting, sculpture, pottery, tailoring, but not poetry, which was inspired by the Muses). At that time, arts were also divided according to whether they engage the mind – **liberal arts** (*artes liberales*), or require physical effort – **common arts** (*artes vulgares*).

Renaissance definition of art – in the Renaissance, the importance of an artist who was no longer a craftsman and wanted to be perceived as a scholar increased, hence attempts were made to raise sculpture, painting and architecture to the name of science. Fortunately, there was opposition to this concept and art was separated from science. At that time, however, there was no idea how to define what we now call the fine arts. Initially, it was considered a drawing and it was referred to as **drawing arts** (*arti del disegno*). They were distinguished for the first time in the 16th century (Giorgio Vasari), then they finally advanced from the category of crafts to the category of liberal arts, where they appeared alongside poetry and music.

¹ <http://encyklopedia.pwn.pl/haslo/sztuki-plastyczne;3983521.html>

Baroque definition of art – in the 17th and 18th centuries, disputes continued over the nomenclature in the field of art. In the 18th century Charles Batteux introduced the concept of **fine arts, beaux arts** (in the treatise by C. Batteux, *Les Beaux-Arts réduits à un même principe*, 1746), which, as a traditional term, is still used today, together with the term **visual arts**.

Contemporary art, starting with Dadaism and Surrealism, no longer meets the definition adopted by Batteux, beauty in the process of aestheticization of reality has gone beyond art, and for art itself it is neither a distinguishing value nor something that is necessary. Currently, it is also claimed that the **concept of art** is impossible to define anymore, as there may always be a work of art that does not fit within the generally accepted definition and assumed framework. Therefore, the so-called **open aesthetics, i.e. the aesthetics of possibilities**, which finds room for unconventional – hypothetical searches by assumption, often ambiguous, theoretical concepts that open up new possibilities for the development of aesthetic knowledge².

The modern city, especially the one with historical roots, abounds in examples of artistic achievements which are derived from the traditional art workshop. Such examples include: stained glass, mosaic, sgraffito, wall painting, sculpture, verbal messages in the form of all kinds of leaflets (posters, bills, playcards) and visual information, which does not mean, however, that all these achievements are currently created without the use of

² M. Gołaszewska, *Estetyka współczesności*, Wydawnictwo UJ, Kraków 2001, p. 135.

modern technologies and patterns. Often, on the basis of traditional technologies, new ones are developed that follow the spirit of the 21st century. Comprehensive actions concerning specific urban districts (e.g. La Défense in Paris, Odense in Denmark), organised by city foundations (e.g. Salzburg Foundation) or performances are also of great importance in the public space. This article will present selected examples of visual arts in urban space, responsible for its quality, symbolism and aesthetic meaning.

Research method

The article was prepared on the basis of the following research methods:

- literature analysis
- *in situ* research: La Défense, Salzburg (Salzburg Foundation), Odense,
- interviews conducted by the author in artistic stained glass studios (Studio Franz Mayer of Munich Inc, Pracownia Witraży/Stained Glass Workshop in Nakło Śląskie),
- participant observation (conducting the following courses at the Faculty of Architecture of the Silesian University of Technology in Gliwice: Fine Arts Techniques, Fine Arts Techniques in Architecture, Fine Arts in Public Space).

Functions of visual arts in the city space

Professor Jan Gehl, in his flagship book *Life between buildings*, indicates the existence of a relationship between the quality of the environment and the activities taking place in it.

It turns out, therefore, that **necessary activities**, such as going to work, everyday shopping, do not require a special environment, because these activities

must be performed anyway. The second group includes **optional activities** that depend on the high quality of the environment, i.e. they are more common in those spaces that bring a wealth of pleasant aesthetic experiences and provide opportunities to spend free time.

...”When outdoor areas are of poor quality, only strictly necessary activities occur. When outdoor areas are of high quality, necessary activities take place with approximately the same frequency – though they clearly tend to take a longer time, because the physical conditions are better. In addition, however, a wide range of optional activities will also occur because place and situation now invite people to stop, sit, eat, play, and so on. In streets and city spaces of poor quality, only the bare minimum of activity takes place. People hurry home. In a good environment, a completely different, broad spectrum of human activities is possible”...³.

Based on these considerations, it can be concluded that the fine arts in urban space are primarily conducive to the occurrence of optional activities. In general, however, their participation in the built environment should not be limited to public places and representative but also to places related to necessary activities.

In this context, it is worth recalling the Lublin Art Activities carried out in the 1970s in Lublin housing estates, where a number of entrance zones to the blocks were decorated with mosaics, and the gable walls with murals.

³ J. Gehl, *Life between buildings*, Arkitektens Forlag 2001, p. 13.

Similar activities also took place in the 1960s and 1970s of the twentieth century, in La Grand Borne, one of the housing estates near Paris, where the Polish artist Ewa Łukasiewicz designed playgrounds in the form of fantastic sculptures, and in 2012 she modernised the estate with new colourful polychromes, designed in a ribbon manner. In these cases, it is also possible to take into account the utilitarian and humanising function of built spaces.

Very often, visual arts in urban spaces also play **the role of commemorating** some important historical event or person. The turbulent history of Europe abounds in many such events, hence many artifacts, e.g. of the martyrdom type. Nowadays, however, typical figural monuments are turned into symbolic elements which very strongly signal the event they commemorate, to mention only a monument built of solitary chairs in Plac Bohaterów Getta (former Plac Zgody) in Krakow, by Biuro Projektów Lewicki i Łatak, monument in honor of the Jews shot down in the Danube in 1944-1945, unveiled in 2005 in Budapest, by Gyula Pauer and Can Togay, and composed of bronze shoes standing on the waterfront, or finally huge yellow pansies-murals symbolising the faces of Warsaw insurgents, by Wilhelm Sasnal, located in the Rose Garden of the Warsaw Rising Museum in Aleja Murali.

Colour is also important for the function of visual arts in city spaces, as it plays a fundamental role in the perception of the built environment and is perceived on the first of the

three levels of perception.⁴ Colour is also of great importance for the perception of the city by visually impaired people⁵ (the so-called low vision), it also has different symbolism depending on whether it is used in the aspect of sacred or profane.

When using colour, one should take into account all the effects of its perception, that is: physiological, psychological, psychophysical⁶, so that the artistic work has the intended colour effect in the place of its destination.

Taking this into account, **an example of the failed project „Universal”** can be given. Three social blocks of flats at Dudziarska Street in Warsaw were created to solve the problem of families evicted from flats located in the Śródmieście and Praga Południe districts. In the spring of 1993, the local governments of these districts concluded an agreement according to which people with eviction verdicts and people in need of accommodation were meant to live in the blocks at Dudziarska.

⁴ Proper sense-motor perception takes place at the 1st level of perception; we recognize figures, i.e. abstract objects in the field of view; they do not have any specific meaning for us, but we perceive impressions such as: shape, colour, texture; on the basis of A. Niezabitowski, *O budowie przestrzennej dzieła architektury*, ZN PŚ. 628, Gliwice 1979.

⁵ The issues were described in the author's habilitation monograph; B. Komar, *Współczesna jakość spółdzielczej przestrzeni osiedlowej w w świetle zasad rozwoju zrównoważonego na wybranych przykładach*, Wydawnictwo Politechniki Śląskiej, Gliwice 2014, p. 137-139.

⁶ More on this subject in the author's doctoral dissertation; B. Komar, *Parter i wejście do budynku. Funkcja, forma i percepcja*, typescript, Gliwice 1999.

It happened so, but the estate soon fell into devastation. In October 2010, at the initiative of Alicja Łukaszuk and Grzegorz Drozd (Change of Traffic Organization), three walls of the blocks were painted with one side, a composition of straight lines inspired by the works of Piet Mondrian, and on the other, the painting Black Square by Kazimierz Malevich. The project was supposed to refer to modernism, which tried to create an ideal world with its architecture. Preparations for the project were very difficult as some residents were reluctant to see the changes. The Black Square painting was particularly doubtful, as according to the residents it strengthened the image of this estate as a place in a *black hole*.⁷

As can be seen, on the basis of this example, not every action with colour can bring the right results. It seems that in this case the fiasco was obliged to choose inappropriate works of art. It can be assumed that other, more colourful, more optimistic and less intellectual murals could bring a better effect, as is in the case of Zaspas⁸ in Gdańsk or in Katowice housing estates and tenement houses during mural festivals. In the spring of 2020, the residents left the estate.

Integrated art activities in urban spaces, selected examples

Integrated art activities in urban spaces can create various types of urban messages. And so they can be divided due to the following features:

⁷ *Artists are changing one of the worst housing estates in the capital*, gazeta.pl, 05.10.2010

⁸ The Monumental Painting Collection in Zaspas consists of 45 murals painted by 45 artists from 13 countries.

———— a selected form of artistic expression, e.g. only murals,
 ————— area of occurrence – open (the presence of art elements is not limited in the urban space by the boundaries of selected spaces; free systems) or closed (art elements are present only in a selected urban area),
 ————— coherence of the message – visual elements constitute a logical whole, e.g. they represent characters from fairy tales,
 ————— art activities depend on one patronage of the arts, e.g. a foundation, sponsor.

This typology cannot be considered exhaustive, but these are the main features of artistic activities that should be distinguished in urban spaces.

In the previous chapter, the mural festival was mentioned, which is one of the most interesting contemporary art events, integrating artists with residents and observers, leaving a permanent mark in the urban space in the form of large-scale murals.

On the other hand, taking into account the limitation of artistic activities to one urban area, the Paris district of La Défense comes to mind, which from the very beginning has become the art salon of Paris, a veritable open-air museum of modern art. Artists from all over the world were invited to implement this project, including Poles: Igor Mitoraj (4 works) and Piotr Kowalski (2 works).

On La Défense, there are currently over 60 artworks by 50 artists from 14 countries⁹, including only Calder, César, Joan Miró, Takis, Atila, Michel

⁹ La Défense Guide to Works of art, EPAD.

Deverne, Aiko Miyawaki. The area of the district, especially around its main Esplanade, was filled with sculptures, mosaics and installations. Monochrome facades of office buildings came to life because intensely colorful sculptures began to reflect in them.

The top floor of the Great Arch – an icon of the district – has also become a mecca for art, where Jean-Pierre Raynaud designed mosaics on the floors in the form of zodiac signs made of white marble and black granite. Jean Dewasne, on the other hand, painted an abstract painting running for 75 meters¹⁰.

Another type of action was taken in the Danish city of Odense, the birthplace of Hans Christian Andersen, where the public space was graced with sculptures commemorating characters from the famous writer's fairy tales.

An example of one art patronage in urban space is the Salzburg Foundation, which started its activity on a private initiative in 2001. The institution cooperates with the Foundation of Art and Culture in Bonn and its ambitious goal is to supplement the city's long-standing cultural tradition with statements by contemporary artists.

Patronage creates opportunities for ambitious meetings between Salzburg residents, international artists and city visitors. Its long-term goal is to create outstanding works of art and a sculpture park. Every year, the Salzburg Foundation invites an artist of international renown to visit the city, get acquainted with it, and finally perform works in public space. Participants

¹⁰ La Grande Arche, BeauxArts, p. 22.

are selected by an international independent team of experts composed of Michael from Auping (Fort Worth, Texas), Danilo Eccher (Torino), and Lóránd Hegyi (St. Etienne), under the artistic direction of Walter Smerling.

The special nature of the project is that the works are handed over to the city, while their financing is made only from generous private donors, including Bank Credit Suisse AG (Germany) and Prof. Reinhold Würth, who supports artists from the very beginning¹¹.

In this way, over the decade, the city was enriched by the following works:
 ————— A.E.I.O.U., Anselm Kiefer, 2002,
 ————— Numbers in the Woods, Mario Merz, 2003,
 ————— Spirit of Mozart, Marina Abramović, 2004,
 ————— Mozart – Hommage to Mozart, Markus Lüpertz, 2005,
 ————— Sky-Space, James Turrell, 2006,
 ————— Sphaera i Woman in the Rock, Stephan Balkenhold, 2007,
 ————— Caldera, Anthony Cragg, 2008,
 ————— Vanitas, Christian Boltanski, 2009,
 ————— Awilda, Jaume Plensa, 2010,
 ————— Gurken, Erwin Wurm, 2011,
 ————— Connection, Manfred Wakolbinger, 2011,
 ————— Beyond Recall, Brigitte Kowanz, 2011.

The project is an example of close, unprecedented cooperation between the private and public sectors and can be an excellent idea for other artistic urban initiatives.

¹¹ <http://salzburgfoundation.at/en/salzburg-foundation-2/about-us/>



Photo 1. Sphaera, Stephan Balkenhold, 2007. Source: Photo Author.



Photo 2. Awilda, Jaume Plensa, 2010. Source: Photo Author.



Photo 3. Munich, the movable facade of the church Source: Studio Franz Mayer of Munich Inc.



Photo 4. New York, Brooklyn, DeKalb Station Sacred Heart. Source: Studio Franz Mayer of Munich Inc.

Adapting traditional art techniques to the requirements of a modern city – an example of the Franz Mayer Studio in Munich

Contemporary urban spaces created with the use of modern technologies also require up-to-date artistic activities. On the other hand, contemporary artistic artifacts can bring historical urban spaces to life. Thus, a highly desirable synthesis may occur in this case.

An example of an art studio that tries to respond to the needs of the modern city is the Munich company of Franz Mayer, established in 1847. At the beginning of her work, she focused her activities primarily on sacred art. In 1860, the stained glass department joined the already existing studios. Five years later, the first foreign branch of the company was opened in London, and then another in New York. In 1925, the church sculpture studio was abandoned and replaced with a mosaic workshop. Since then, the company has transformed into an artistic studio of stained glass and mosaics, entrusted with the execution of their projects by numerous artists and architects. The post-war period was under the slogan of developing new technologies, especially a complex thermo-insulated system for glass, which was first used in 1952 for the large-scale project of restoring the stained glass windows in the Munich cathedral. In the early 1980s, a painting on liquid glass studio was opened.

Typical historical stained glass works of the Franz Mayer Inc. Studio can be admired in many sacred buildings in Lower and Upper Silesia (including the

Church of Christ the King in Gliwice¹²). The most spectacular artistic achievements of the studio include the construction of the movable facade of the Church of the Sacred Heart in Munich according to the design of the architects' studio: Allmann Sattler Wappner and the pattern (entitled: Coded text) proposed by Alexander Beleschenko. Currently, the company also carries out many projects for public spaces, metro stations, office buildings, for example: Kunst im See (glass cube in an office space, Roland Fischer, Münchner Tor), Daisies on Gras (glass wall, etched, painted, sandblasted, Brian Clarke, London), facade of the Greater Tacoma Convention Center (Stuart Keeler / Michael Machnic), Pavillon Jungfernstieg (André Poitiers, Hamburger Hochbahn AG, Hamburg), Treppenaue (Haubitz + Zoche, mosaic in Allianz Hauptverwaltung, Munich), mosaic in the metro station (Stephan Johnson, New York, Brooklyn, DeKalb Station).

Reference to the didactic work on art subjects – summary

The Department of Fine Arts and Design conducts a number of academic art courses at the Faculty of Architecture of the Silesian University of Technology, both at the faculty of Architecture and Interior Design.

The author of the article is responsible, inter alia, for conducting lectures for students of Interior Design Department covering Fine Arts Techniques in Architecture 1 and design project covering Fine Arts

Techniques in Architecture 2. As part of these academic courses, she provides students with theoretical knowledge signaled in this article. However, the most creative part of the didactic work are projects in the field of stained glass, mosaics, murals and sgraffito.

The students' task is to design a work of art for a previously selected interior, in such a way as to emphasise the character of the interior, its user profile, and to choose the appropriate colour scheme. Very often, students choose interiors from their previous projects, which allows them to create a well-thought-out synthesis between visual arts and architecture and understand the connection of these activities with the contemporary city.

¹² More on this subject in the publication of the author: B. Komar, *Witraże kościoła Chrystusa Króla w Gliwicach*, Wydawnictwo Parafia Chrystusa Króla, Gliwice 2010, p. 63.

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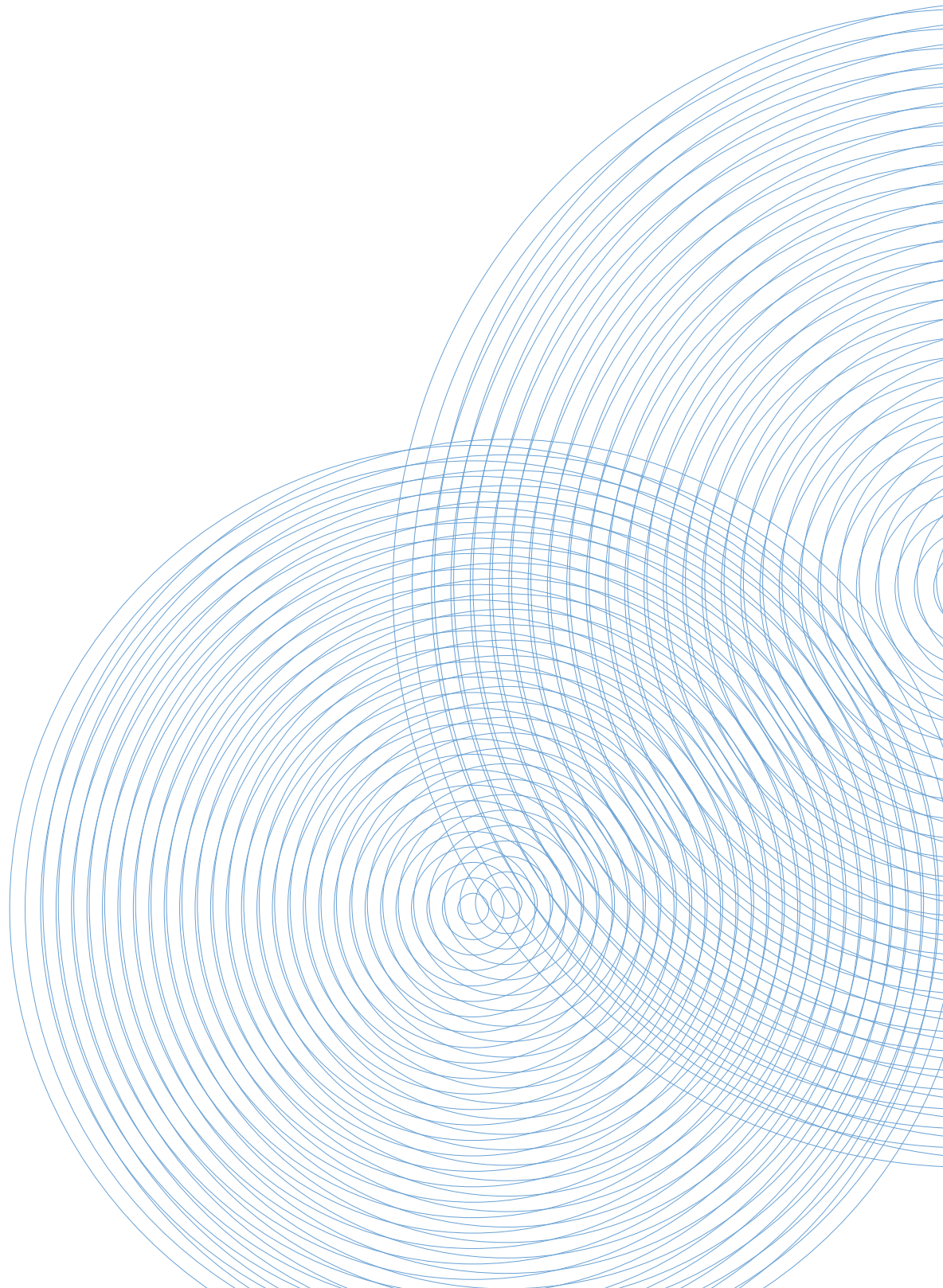
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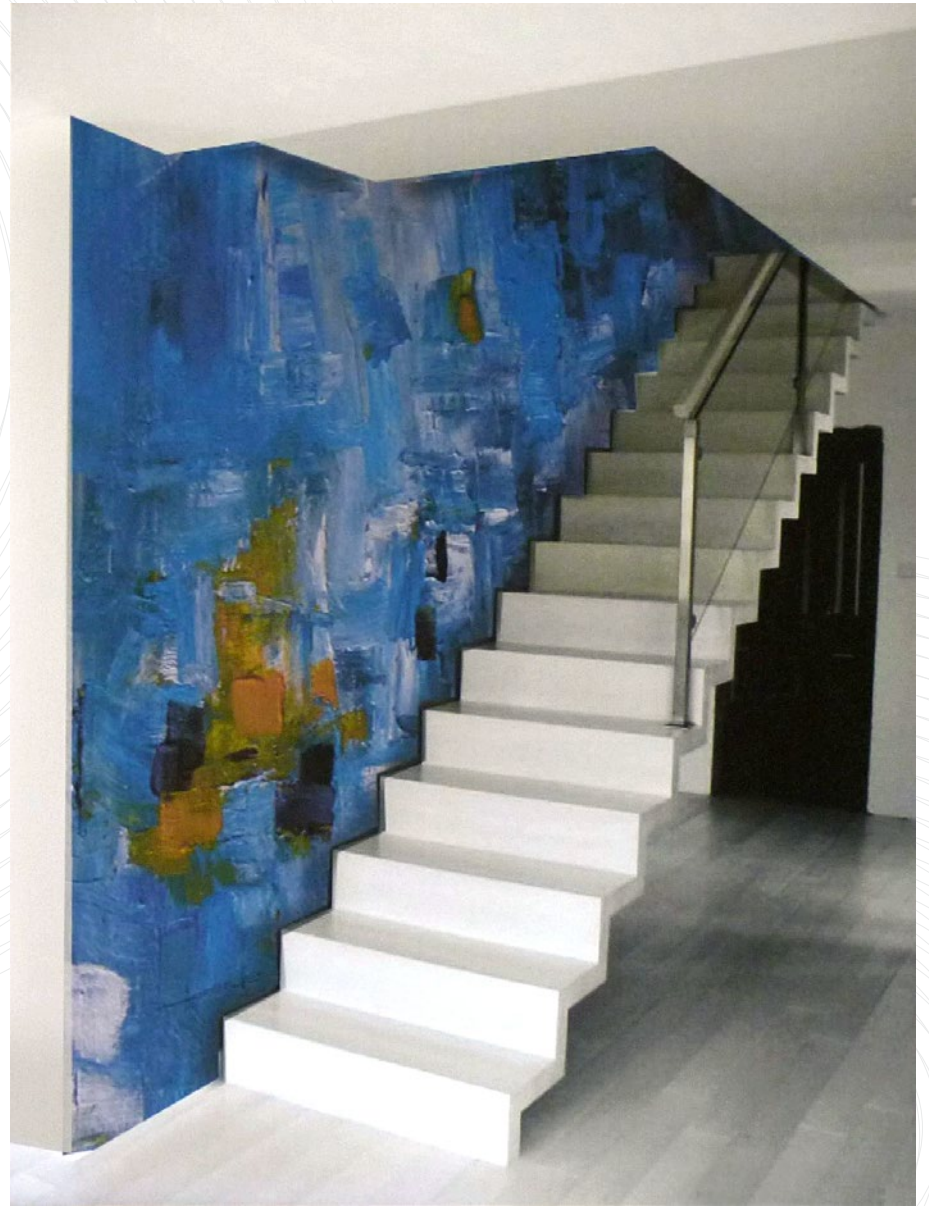
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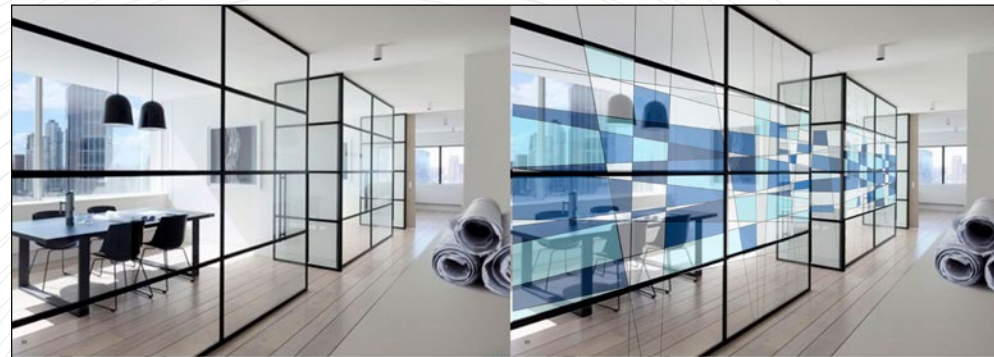
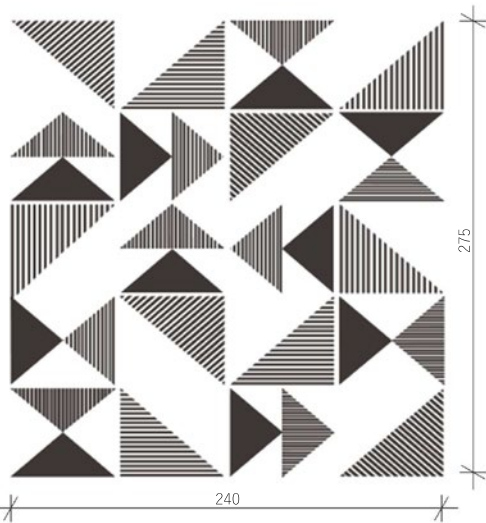
*Design of a wall painting in a residential building by DOROTA PILOR
Fine Arts Techniques in Architecture 2,
Interior Architecture I, semester 6,
academic year 2013/2014*

SGRAFFITO

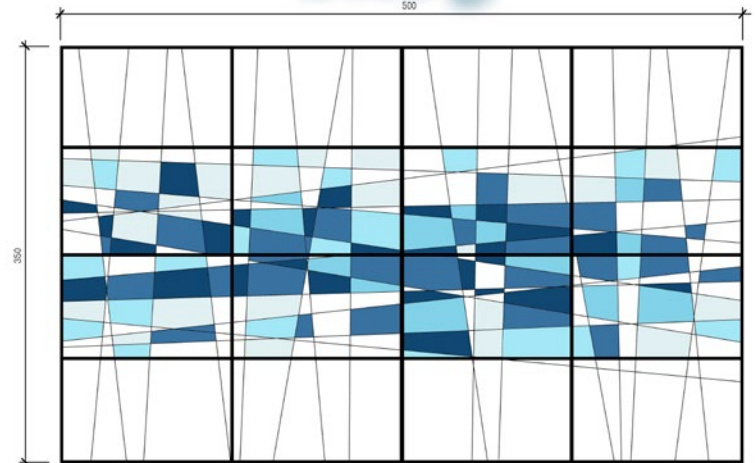


3f3735

Sgraffito w całości wykonane w danym kolorze według palety Color HEX.



witraż



Design of sgraffito in a bedroom, performed by ANNA WYŻGÓŁ.
Fine Arts Techniques in Architecture 2,
Interior Architecture I, semester 5,
academic year 2020/2021

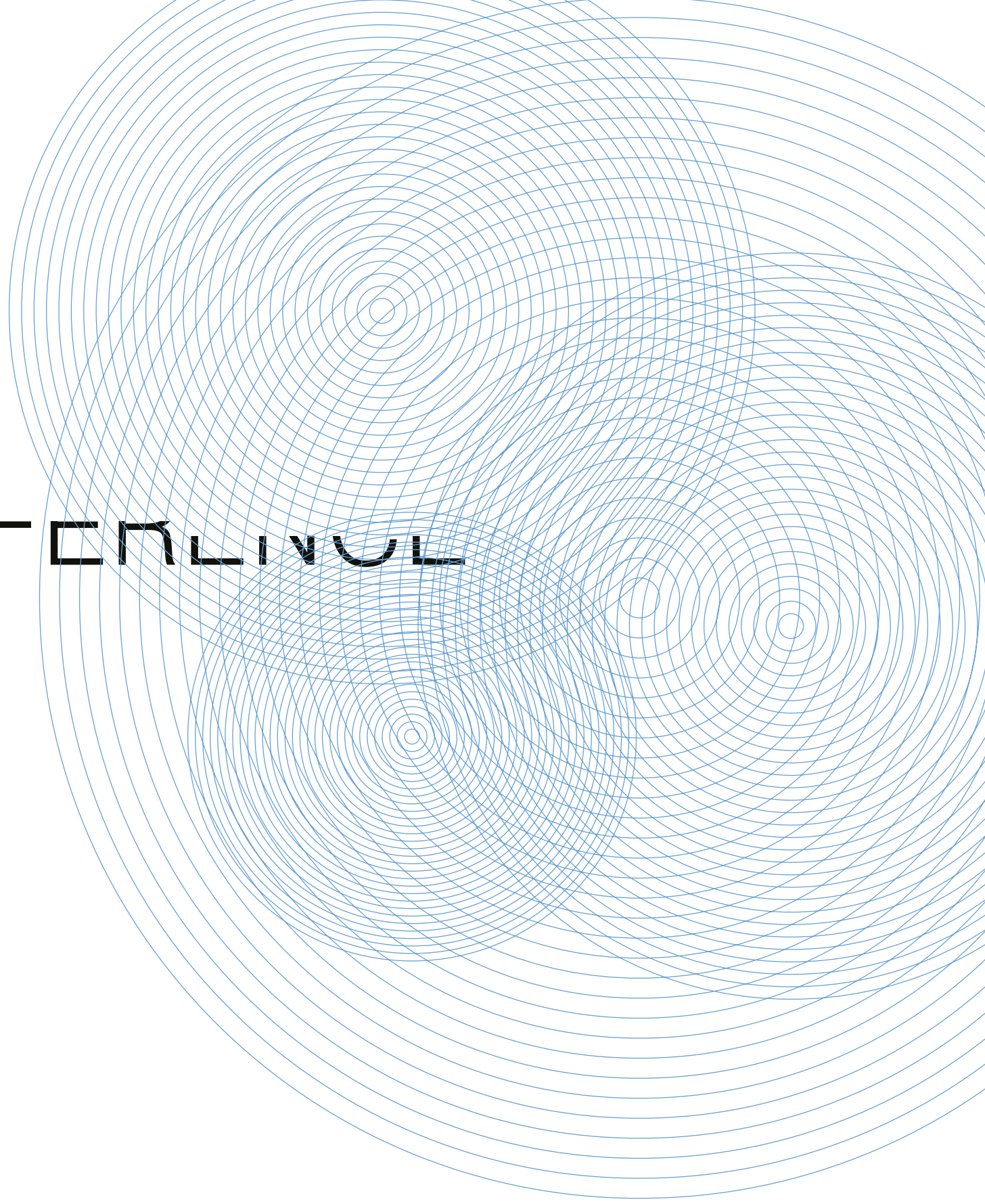
Design of stained glass in an office building, performer by AGNIESZKA PILARSKA
Fine Arts Techniques in Architecture 2,
Interior Architecture I, semester 5,
academic year 2018/2019

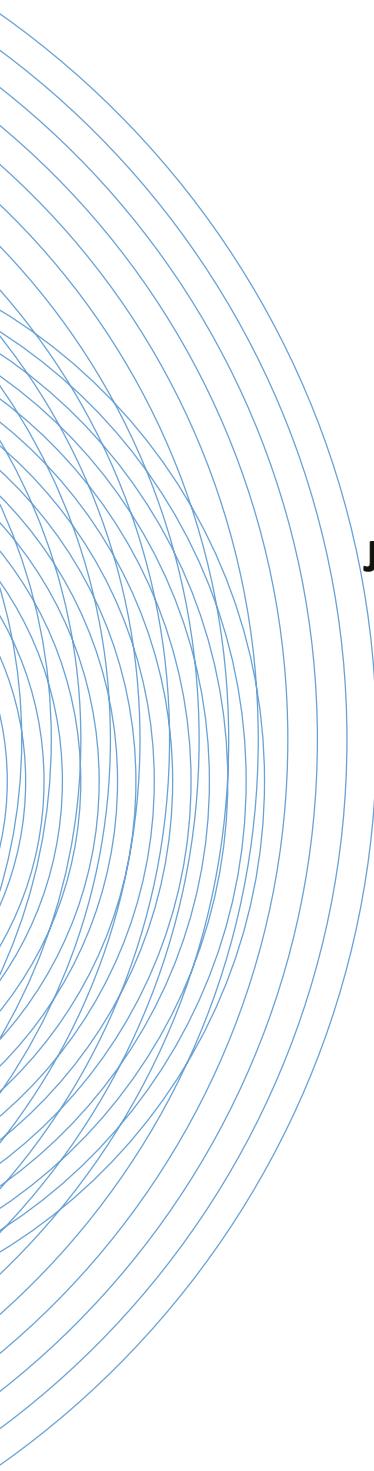
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Graphic
art in the
architect's
workshop

GENERAL





Ph.D. in Fine Arts

**Jacek
JOOSTBERENS**

Prof. of Silesian University
of Technology

Graphic art in the architect's workshop

ABSTRACT

The aim of the article is to present selected elements in the area of graphic issues that may complement the competences and knowledge related to the design activity of young architects. The author presents the synergy effect – the interpenetration of two disciplines, observed on the basis of the analysis of design problems and issues in the areas of widely understood functional graphics, supported by classic graphic tools and technologies, combined with an architectural workshop. It represents the cognitive processes, formulation of answers to the questions derived from the analysis and designation of the projects undertaken by students of the engineering discipline of Architecture and Interiors Design at the Faculty of Architecture, Silesian University of Technology, Gliwice. This is supported by the author's professional competence and the skills acquired by cooperating with many publishing

houses, advertising agencies and market studies, as well as by the didactic experience obtained in the long-term contacts with the academic environment of graphic arts designers and architects. In the description of the dependencies between graphic arts and architecture, the author refers to his teaching classes, with special focus on their character and essence. The results of the didactic process are presented by the examples of selected student projects undertaken during the following academic courses *Creative Drawing, Typography and Design of Signs, Graphic Design and Photography, Graphic Arts Workshop. Courses*

Introduction

The natural human desire to understand the occurring phenomena, gives man the right to present various attitudes. The obtained answers to the questions asked combine, permeate,

complement, giving an ever more complete definition of what we call the surrounding space or reality. It is the experience, which is the sum of individual experiences, that makes us choose what to do in the future due to our inborn predispositions. This also applies to creative searches, artistic or design experiments, and as a result of the conducted analysis, has an impact on the implementation of specific “products” that meet specific expectations.

Subject matter, scope and purpose

The following study presents, in a compact way, cognitive processes, formulates answers resulting from the analysis of the subject and defines the design realisations of students of architecture, mainly interior design, based on issues related to graphics. Moreover, the presented work demonstrates elements without which these processes in the designer's work would not be complete. The study was based on the experience, observations and results defined thanks to my professional work as a graphic designer, but also as an academic lecturer, implementing a didactic

programme based on art issues in the field of graphics as part of lectures and exercises conducted with students of Architecture and Interior Design at the Faculty of Architecture of the Silesian University of Technology. The results of the didactic process will be presented by means of a few selected student projects from the following subjects: *Creative Drawing, Typography and Design of Sign, Graphic Design and Photography, Graphic Art Workshop*, as well as diploma works by students of Postgraduate Studies in Graphics.

Art or not art. Various Aspects of Graphics.

I have recently noticed a trend that concerned me. I hope it is just a kind of a different creative attitude, a picture of the world, formulated differently. However, the strangest thing, is that I encountered this phenomenon in the environment of young graphic designers. With the passage of time, it turned out that this observation concerns a certain group of people who believe that a graphic artist does not need a pattern, and that the criteria that have been used so far in the cognitive process should be modified in line with contemporary needs. Hence, the phenomenon discussed here concerns the workshop in which the efficient use of drawing and drawing tools is not a necessary skill.

As a graphic designer for whom the development of the discipline is very important, I cannot imagine working in the space of graphic issues that exclude the elementary means of expression, but above all the basic language, without which graphics and the emotions associated with it cannot exist. Until now, such an attitude was completely alien to me. While I was studying design

graphics, I was observing the artistic and didactic activities of professors who are my mentors and masters.

Then it would not even have crossed my mind that the programme they are implementing, and which has worked well for many years, should be negated in any way. The fact is that a lot has been changing around us recently, and I carefully observe the phenomena related to the development of technology in art and design. However, I believe that without “practicing” graphics actively, I would not have the right to question such an extreme, in my opinion, group of young graphic artists. I acknowledge that there are also such attitudes among other creators. I come from the graphic arts community for whom the workshop was as important as the cognitive process. Artistic balance was extremely significant to us. I began to explore more closely why this is so, why young graphic designers think so, where this belief comes from. It turned out that they succumbed to a common opinion that a graphic designer is the one who works on a computer and puts various parts together, combining images, photos and drawings with text. Therefore it is the one who “creates computer graphics”. When I realised this, I was relieved to a certain extent, though not entirely. I was still asking myself how young artists can deal with graphics without using its basic element, which is the line, and thus the emotions formulated with it. Of course, such attitudes are not new, because the postulate that in the pedagogical process art universities make a mistake by putting too much emphasis on genius and not on ordinariness, *Bauhaus* – an arts and crafts school established in Weimar in 1919. The school did not

reject various types of tools in investigating what is “useful”, including drawing, nevertheless it advocated other, more pragmatic use of it.

It is therefore necessary to return to what graphics is, what is the wording of its current definition. According to commonly known sources, the term graphic refers primarily to the so-called classical graphics. Artistic or workshop graphics are used interchangeably here. In this perspective, apart from painting and sculpture, it was one of the basic branches of visual arts. However, the achievements gained over the centuries thanks to graphic artists in the area of shaping the form, defining the content and the printing workshop are used to this day, although they have also undergone changes, mainly technological. It was not until the mid-nineteenth century that the reproductive graphics were distinguished, the primary purpose of which was utility, i.e. apart from the aesthetic role, it was to serve commercial purposes. Over the years, this field of graphics has also changed. It is difficult now, through its differentiation, in a short definition, to define exactly what it is, what its framework is. The author of the term “applied graphics” is an American, William Addison Dwiggins. In the publication: *What is Graphic Design?* we read: “When creating a project, you should forget about art at the very beginning and follow your instincts. The most important thing in graphics is to create a clear message of information and to ensure that nothing escapes the attention of the recipient. It is an exercise of common sense and analysis rather than an art. “ (...) From Dwiggins’ point of view, utility graphics included only those works that were intended for printing. (...) Commercial graphics is a broader concept and covers both

typography and other graphic fields. For example the creation of pictures and a kind of manipulation of them.”¹

Understanding the issues of graphics only in the area of printability is obviously a simplification. As early as 1923, Francis Meynell wrote about his comprehending of functional graphics: “The height, depth and breadth of tangible and natural things: landscapes, sunsets, the smell of hay, the buzzing of bees, beauty, all boundless emotions and movements of the human mind that has no limits; unpleasant, terrible and mysterious thoughts and things, and at the same time beautiful – are surrounded, controlled by a trivial mixture of letters and are arranged by it.

¹ Q. Newark, *Design i grafika dzisiaj. Podręcznik grafiki użytkowej*, Warszawa 2006, p. 10

Twenty six characters!”². From this description emerges a poetic image, the painter’s world, which stands in contrast to the creative activity, which is primarily functional by assumption. This clearly outlined division accompanies functional graphics until today. On the one hand, an expressive, creative impulse subordinated to utility of a commercial nature, where the customer is the decisive voice, on the other hand, unrestricted activity serving sophisticated aesthetic needs. Function versus aesthetics. Obviously, both of these attitudes evolve, and sometimes they complement each other. The change in demand for a diversified product gives an opportunity to develop both attitudes.

² ibidem

In this context, I will try to understand the lack of willingness to expand my graphic skills for the group of graphic designers mentioned above. It is a group of designers who see the functions of graphics mainly in its usability, where the design result is strongly subjected to an analytical and cognitive process, without focusing on aesthetic nuances, but only on the practical sphere. However, I am not discouraged by this attitude. I try to bring them closer to the values related to their individual language, supported by drawing, through their own creative activity.

The very issue of drawing as a supporting tool is perceived by everyone separately. An example can be a person who finished his way in the practical use of a drawing trace at the school stage. If a given person does not realise the value of a message

Examples of posters made using drawing techniques



Henri de Toulouse-Lautrec
Le Salon des Cent, 1896



Franciszek Starowieyski
Jak wam się podoba, 1971



Stasys Eidrigevicius
Homage to Vincent, 1990

constructed with the help of knowledge and a learnt drawing trace, the artistic creation of this person will be reduced by a recognisable, individual character. As an example, can be given poster projects, the development of which was largely based on communicating with a drawing abbreviation that clearly defined its creator.

Regardless of the prevailing fashions, it is worth trying to balance what is aesthetic with what is functional. Of course, the very concept of beauty in design is not enough, what is beautiful for one person is not necessarily so for another. However, I personally represent a moderate approach in this respect, and therefore I understand and acknowledge that it is possible to act in many ways. Bruno Munari represents a well-defined attitude regarding the superior role of utility in contemporary design.³ In his publication entitled "Design as Art" writes: *"Today it is necessary to refute the myth of the divine artist who creates only masterpieces intended for people of outstanding intelligence. It should be said that as long as art does not take up life's problems, only a few are interested in it (...) Today [... artist] (...) must abandon his romantic image and become a man who works among other people and who is familiar with the latest solutions, materials and working methods. respond to the needs with which his fellow men may turn to him."*⁴

³ Bruno Munari (1907-1998) – an outstanding Italian artist, writer, architect, designer, teacher and philosopher, called by Pablo Picasso "the new Leonard". He was one of the most inspiring designers of all time. He believed that design could be beautiful, functional and accessible to everyone

⁴ based on B. Munari, *Dizajn i sztuka*, Kraków 2014

Nevertheless, in such an attitude there is no contradiction in the design process itself, the tools for designing, for example, a large-format poster or other element of outdoor advertising, are an individual matter, not a requirement. Of course, based on the belief that drawing, which for many centuries had fought for its place in art as a separate artistic discipline, "earned" the name of a unique, which became more a means of expressing the artist's needs than a designer. Nonetheless, when analysing what Munari says, developing and maintaining innate sensitivity does not result in a loss in the quality of practical implementation. According to the above author, art has become a craft again today, but in order to be needed by anyone, it must establish permanent, everyday contact with society.

I try to convince young graphic designers not to give up these basic drawing tools, which are elements supporting the designer's workshop. They become convinced of the value of the effects over time, implementing subsequent, more and more daring project implementations.

Drawing. Graphic tool.

For several years, I have been cooperating as an academic teacher with students whose creative activity mainly focuses on spatial issues related to architecture, interior architecture and design. I try to introduce my interests in graphics and its many versions, professional experience gained in cooperation with advertising agencies, publishing houses, as well as in artistic work, into a world that until recently was perceived by students as very hermetic, and thus different from their interests. It happens that the truths functioning in the space reserved for

art are transferred to design, where the division into disciplines is quite conventional, rather forced by definitions related to the implementation of a specific task. At the Faculty of Architecture of the Silesian University of Technology in Gliwice, the study programme for architects, and in particular interior architects, gives the opportunity to transfer knowledge and skills in a fuller way, which is a valuable supplement to the mainstream related to the field of study. Already in their first year, students notice that individual subjects and their content complement each other. It is expressed by them in positive opinions about the completed term papers, done by themselves and their colleagues. During their studies, by taking part in classes, especially those that complement design competences, they realise that their offer in their professional life will be fuller and more competitive. At the beginning, however, they are quite distrustful. They change their attitude only when they notice a clear progress in their actions. However, in order for this work to be successful, we jointly implement a programme based on certain established principles, the result of which is systematically evaluated to achieve better results. This is done by grading the scale of difficulty with the simultaneous completion of the content in combination with practical skills.

It all starts in the first year of study, on the academic subject: Drawing. The programme is structured in such a way that the complicated content in the future is first based on basic artistic issues concerning composition, structure, proportion, rhythm or space. Students focus their attention on the layouts of forms located in the drawing studio. These are simple geometric solids that are later converted into

objects of complex structure and size. They create extensive, multi-threaded still life, where it is crucial to observe the dependencies between individual elements. Nevertheless, what is most important are exercises in determining the arrangement of these solids in space. The works are performed with the use of alternately different drawing techniques, enriching their workshop (e.g. pencil, ink, drawing charcoal, sepia). After mastering these skills, students make drawings on more difficult topics: urban interior, street frontages, stylish interiors. In this way, they exercise the ability to observe, analyse the surroundings and interpret various architectural layouts. The result of these activities is the realisation of how we actually see and perceive spatial forms. At a later stage of studies, i.e. from the second year, drawing issues focus on the subject of the *Human figure*. In this case, the emphasis is on the construction of the figure, determining its proportions, building the form and drawing attention to the characteristic features of the model. Of course, this does not happen without considering the given environment. It is also vital to study the arrangement of characters in space, i.e. to pay attention to their positions in perspective, the context with the elements located around them, as well as the value differences that build space with the help of light. The academic course *Drawing* for the 1st and 2nd year of studies of the 1st degree (Interior Architecture I) is continued in the 1st year of supplementary studies of the 2nd degree (Interior Architecture II) in the classes of *Creative Drawing*. It is a work on assigned topics related to drawing issues, where students, through their research, both workshop and formal, try to create their individual, original language. The final shape

of the drawings is the result of corrections of previously prepared projects.

The information presented gives an image that proves the importance of the drawing tool in the arduous but extremely useful process of experiencing space that future adepts of design arts in the field of architecture will struggle with.

Why does an architect need a graphic?

With regard to legible communication, Bruno Munari shows that today's art [the art of design] *has become a craft again, as it was in ancient times, when society called on the artist to create a visual message (then called a fresco), informing the people of a specific religious event. Today (...) (graphic designer) society asks for the creation of a visual message (...) that would inform the audience (...). And why is a graphic artist asking for it, not an easel painter? Because the graphic artist is aware of the means at the disposal of newspapers, knows the appropriate technologies, uses shapes and colours in such a way that they affect our psyche.* This visual message is shaped by certain elements without which the defined ideas would be illegible. These include *Typography and Design of Sign* [logo, logotype]. Communication in graphics is essential, graphics are based on a message, and a letter, word, sentence, text are its indispensable means, but not only them. Typography is a term that includes several related meanings relating to characters used in printing, advertising, the Internet, etc. About typography Lakshami Bhaskaran writes: *Typography is giving written forms visual values. It can decisively influence the perception of the entire project. We*

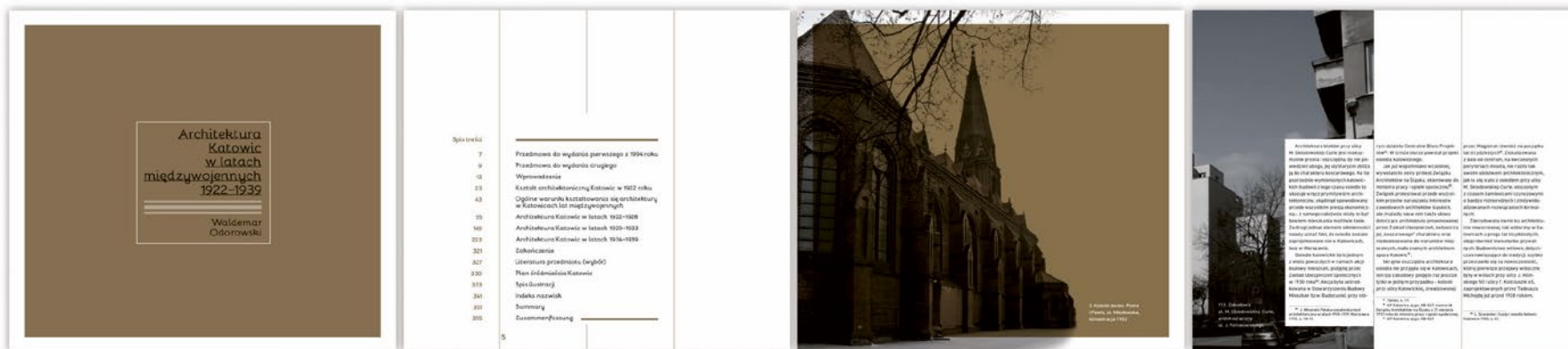
*can say that typefaces – fonts, have their own personality and are an excellent means of conveying various emotions. They can be authoritarian, free, official, informal, strict, or simple, unobtrusive. On the other hand, the graphic form of a font becomes an image in itself.*⁵ This proves that the power and meaning of the letter have a decisive influence on the reception of the message, especially in a specific context.

As part of the academic course *Typography and Design of Sign*, 2nd year students of the 1st degree studies (Interior Architecture I) at the faculty of Interior Architecture learn the basic principles of typography: letter anatomy, basic terminology, page division (grid⁶), principles of creating posters, boards or publications. They also implement original graphic signs on various topics, where great emphasis is placed on the legibility of a simple, compact form, adequate to the given problem. It is an attempt to combine a symbol (signet) with text (logotype). During the exercises, they independently perform design tasks, based on the acquired theoretical knowledge, supported by examples. They look for inspiration in their surroundings: in nature or architecture. For what purpose?

Even if we briefly study random architectural realisations, no matter if it

⁵ L. Bhaskaran, *Czym jest projektowanie publikacji?* 2007, p. 68

⁶ Grid – is used for precise placement of content, graphic elements and other design components on the website. (...) It is the most effective way of organising a large amount of information on the website, allowing to maintain a homogeneous, consistent form and styling of the entire publication. Based on: L. Bhaskaran, *What Is Publication Design?*, 2007, p. 64



Krzysztofa Frankowska. Grid for publication *Architecture of Katowice in the interwar period 1922–39*, Waldemar Odorowski, Muzeum Śląskie, 2013

118 → 119

Graphic art in the architect's workshop

is a small shop, housing estate, playground, logistic centre or public utility building, we will notice information in each of these places, made with the help of text. What is a little tough to watch is the unconscious, or even worse, uncontrolled placing of graphic elements (lettering and signs) in space. In a normal, natural way, even automatically, we adopt an environment that is readable, so we can move freely in it. There are more and more such investments, awareness is growing, which makes the surrounding elements more organised. For this reason, it becomes justified to make future architects aware of the principles of creating clear visual communication⁷. The consequence of an

⁷ Visual communication – it is communication through the image, the transmission of information in a visual form between the sender and the recipient by means of communication - the so-called media (e.g. press, books, posters, television, internet, multimedia presentations and others). Basically, it is based on such elements of expression as: illustration, photography, typography, infographic, video or animation. The recipient of the message can be more effectively influenced by an image supported by text. The evaluation of a well-designed visual message is based not on aesthetic or artistic preferences, but on measuring the audience's understanding of the message that the image was intended to express. Based on: https://pl.wikipedia.org/wiki/Komunikacja_wizualna

in-depth analysis of the problem is the conscious ordering of the signal resulting from informing, the form is subordinated to usability, while maintaining the nature of the identification.

An example of using the grid in a publication

The next stage in learning about graphic problems and their application in design work are practice projects covering a wider range of graphic designer's activity. They are carried out by students as part of the *Graphic Design and Photography* subject for the 3rd year of the 1st degree of studies (Interior Architecture I) at the faculty of Interior Design.

Earlier, I noted that it sometimes happens that the term describing a graphic designer is replaced with the term: “computer graphic designer” or “advertising graphic designer”. Of course, the work of a graphic designer includes these activities, for advertising and computer as a tool, there is also a place there. However, there is a difference and it is worth paying attention to. British designer David Stuart described the similarity and difference between design graphics and advertising in this way: *They are not distinct domains. Just browse the British design & Art Direction magazine to understand that*

they've been addressing the same issues for some time. The only difference is that designers and consumers usually appeal to the business world, and advertising agencies appeal to consumers. Designers are prone to whisper and agencies are prone to scream. Utility (design) graphics is a broader concept, covering the form, the poetic language of the message of many brands and products in themselves, while advertising concerns only brand and product promotion. This nuance is relevant. Graphic design started with conveying legible content, where there is also room for interpretation. And so the poster informs about a music concert, an announcement about the opening of a new store, a leaflet or a banner about the sale of apartments in the area. Everything is designed with great care to preserve the character of the place and the climate that is to accompany it. It doesn't have to shout: Me, only me! It informs, encourages and proposes.

This is what students learn as part of the academic course *Graphic Design and Photography*. The topics are varied, each of them touches on different issues, which requires a different cognitive process and the use of slightly different tools. Once it will be a task in which attention should be paid to the multi-threaded nature of

the problem, reserved for fine arts rather than a utility product. A subtle, author's story in which the student reveals his attitude to the interpreted phenomenon, where he can refer to his own experiences as well as acquired experiences. Nonetheless, the analysis of the research work should be carried out, e.g. interviews among representatives of the target group (research of entities with different specificity). Here, the issues may concern, for example, poster designs, promotional materials (flyers, catalogues, brochures), as well as multi-page publications (magazines, books) in the form of model based on a specific layout on cultural and social issues. At other times, it will be a group of problems in which the attention will be focused on communicating about a specific product or brand, with particular emphasis on uniqueness in confrontation with competing products or brands. The projects are based on a combination of typographic elements with original photography. Thanks to this procedure, students learn in a broader context the workshop of design graphics, rely on proven patterns, and use their knowledge and artistic skills in a practical way regarding composition, legibility, consistency, colour, etc., to achieve the most interesting design proposals.

The acquired skills and knowledge of graphic design and graphics in general would be incomplete without knowing the techniques and technologies of printing that underlie the graphic activities related to the multiplication of the original print from the matrix. Students can take advantage of this option as part of the *Workshop Graphics* course. Here they will learn about classic and industrial printing techniques, realizing original graphic works in selected techniques (linocut, drypoint, relief, digital printing). Particular emphasis is placed on the preparation of works for digital printing, which, through its dissemination, is successfully used in architectural studios and offices.

Application of graphic issues in spatial design

The acquired skills perfectly fit into the field of activity of future architects. The use of functional graphics as a supporting element, already at the stage of studies, gives excellent results. Conscious use of typographic elements, vector graphics, drawings, photographs or visualisations on various media influences an even better reception of the presented design works. Building a message based on a readable grid (layout), the hierarchy of information importance considered,

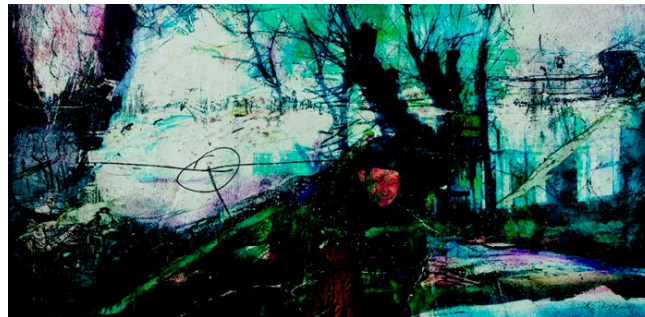
conscious organisation of text or graphic symbols, in the opinion of future contractors, will provide the highest level of the presented works.

Students, noticing the satisfactory results of these activities, often decide to conduct a more in-depth study of the areas they deal with as part of *Graphic Design and Photography*, by joining the optional classes of this academic course in the 2nd year of the 2nd degree studies (Interior Architecture II) at the faculty of Interior Design. They undertake, among others: the subject of comprehensive *Visual Identification* of their future design offices, taking into account the nature of the original architectural company (logo, logotype, job offers, promotional materials, visual communication, etc.); project should be designed and implemented in the form of a model, functional *Portfolio*, built on an original grid, with particular emphasis on the readability of the information posted and the diversity of the presented works; the subject of comprehensive customer service, by including the necessary elements of visual identification, promotion and advertising of the company (internal and external identification, tools, carriers, media) in the designed architectural implementation.

Examples of the use of digital printing in workshop (artistic) graphics

Jacek Joostberens, *10.51.PN*.
Digital printing, relief printing, plaster engraving 100 x 200 cm, 2012

Jacek Joostberens, *12.12.WT*.
Digital printing, relief printing, plaster engraving 100 x 200 cm, 2012



120 → 121

Graphic
art in the
architect's
workshop

Postgraduate Studies in Graphic Design have been launched at the Faculty of Architecture of the Silesian University of Technology in Gliwice for several years. These studies are intended for graduates of the 1st and 2nd degrees of design studies. They are particularly popular among architects who want to complement their design activities and combine them with related elements, where graphics play a key role.

Summary

Contemporary graphic design cannot exist without cognitive processes. It is not worth wasting time improvising. Problem analysis, the use of tools adequate for the discussed issue, and finally defining the design subject are the basis for the highest quality graphic designs. The presented exercises, carried out as part of the studies in Architecture and Interior Design, as well as during the Postgraduate Studies in Graphic Arts at the Faculty of Architecture of the Silesian University of Technology, are a testimony to the close interdependencies and interpenetration of artistic and design disciplines in the space of architecture and graphics.

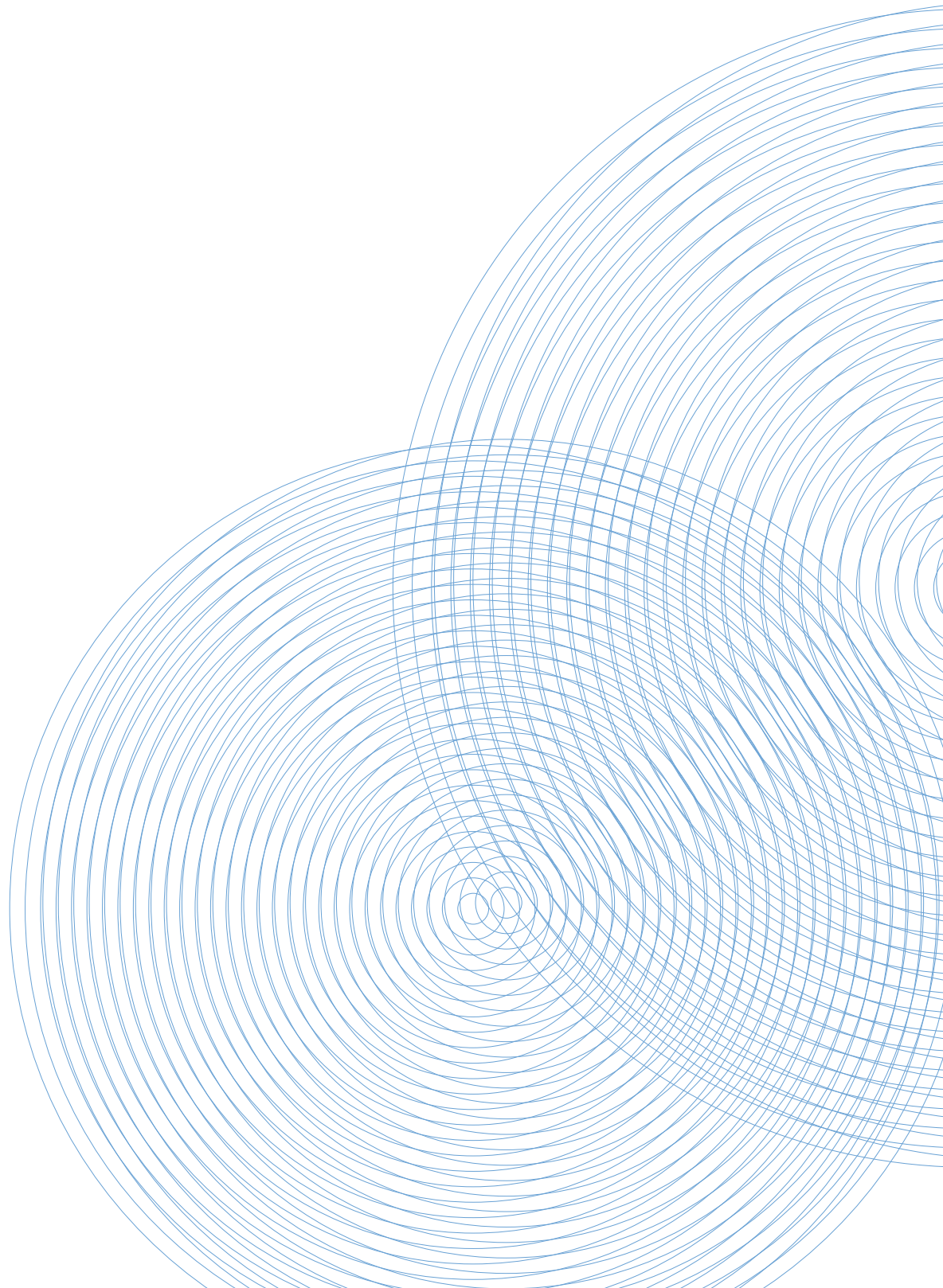
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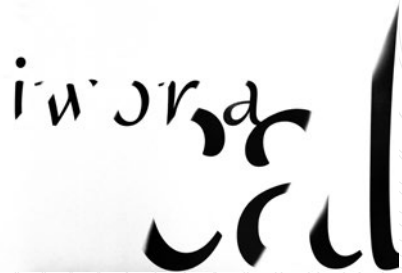
Newark Q., *Design i grafika dzisiaj. Podręcznik grafiki użytkowej*, ABE Dom Wydawniczy, Warszawa 2006

Munari B., *Dizajn i sztuka*, Wydawnictwo d2d.pl, Kraków 2014

Bhaskaran L., *Czym jest projektowanie publikacji?*, ABE Dom Wydawniczy, Warszawa 2007

[https://pl.wikipedia.org/wiki/
Komunikacja_wizualna](https://pl.wikipedia.org/wiki/Komunikacja_wizualna)





Card. Lettering exercise by IWONA CAL
Course: Typography and Design of Sign
Interior Architecture I, semester 4,
academic year 2011/2012



Author's book *The Door To Hell* by
AGNIESZKA PILARSKA
Course: Graphic Design and Photography
Interior Architecture I, semester 5,
academic year 2018/2019



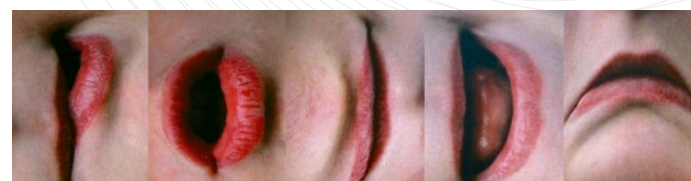
The cover of the architectural magazine
ARCH-LOOK by ANNA KALETA
Course: Graphic Design and Photography
Interior Architecture I, semester 5,
academic year 2013/2014



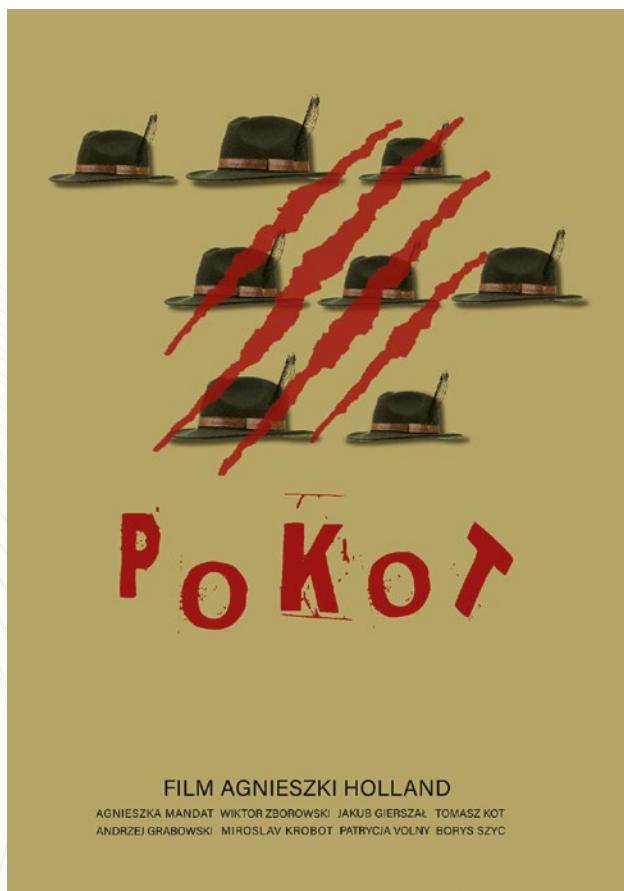
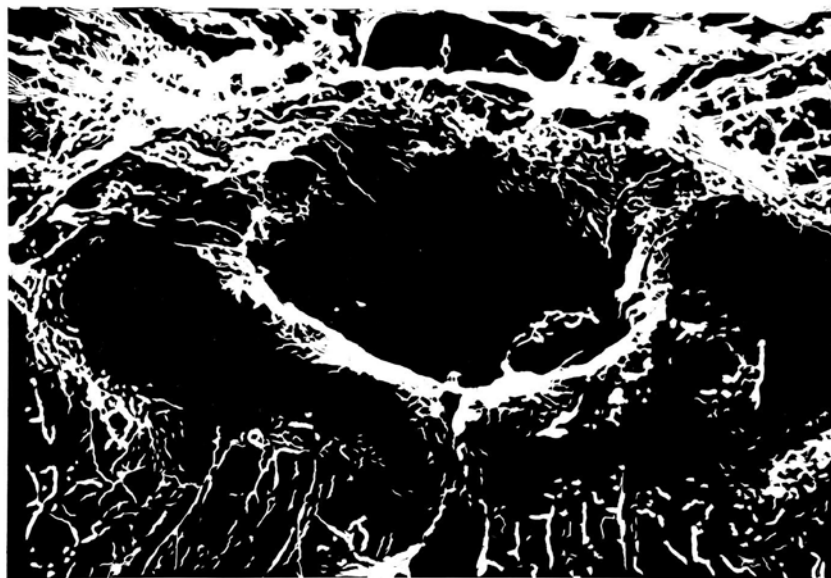
Visual identification of an architectural studio
by ALEKSANDRA BIRYCKA
Course: Graphic Design and Photography
Interior Architecture II, semester 3, academic
year 2015/2016



Cultural event poster by
KATARZYNA BĘDKOWSKA
Course: Typography and Design
of Sign
Interior Architecture I,
semester 4, academic year
2013/2014



Graphics by DOMINIKA LECH
Course: Graphics Workshop
Interior Architecture I, semester 6,
academic year 2016/2017

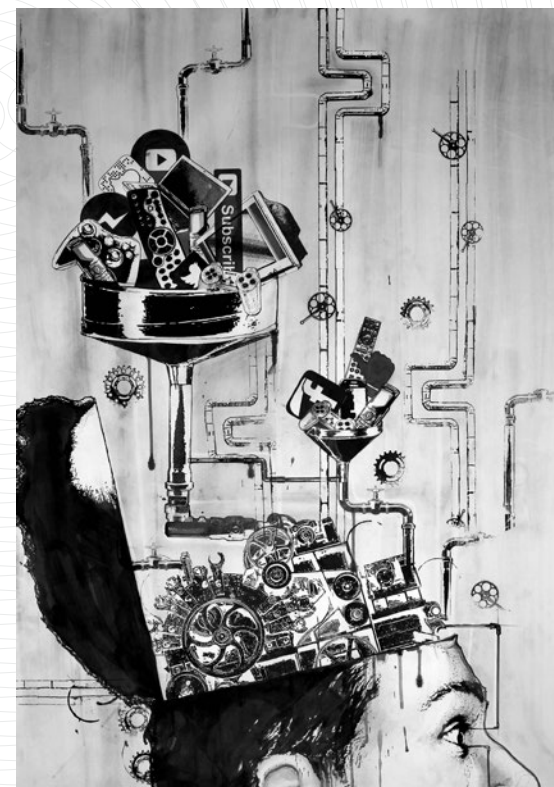


Film poster by ALEKSANDRA MRÓZ
Course: Typography and Design of Sign
Interior Architecture I, semester 4,
academic year 2018/2019

Proverb by OLGA LOSA
Course: Creative drawing
Interior Architecture II, semester 1,
academic year 2015/2016



Interior by OLGA LOSA
Course: Creative drawing
Interior Architecture II, se-
mester 1, academic year
2015/2016



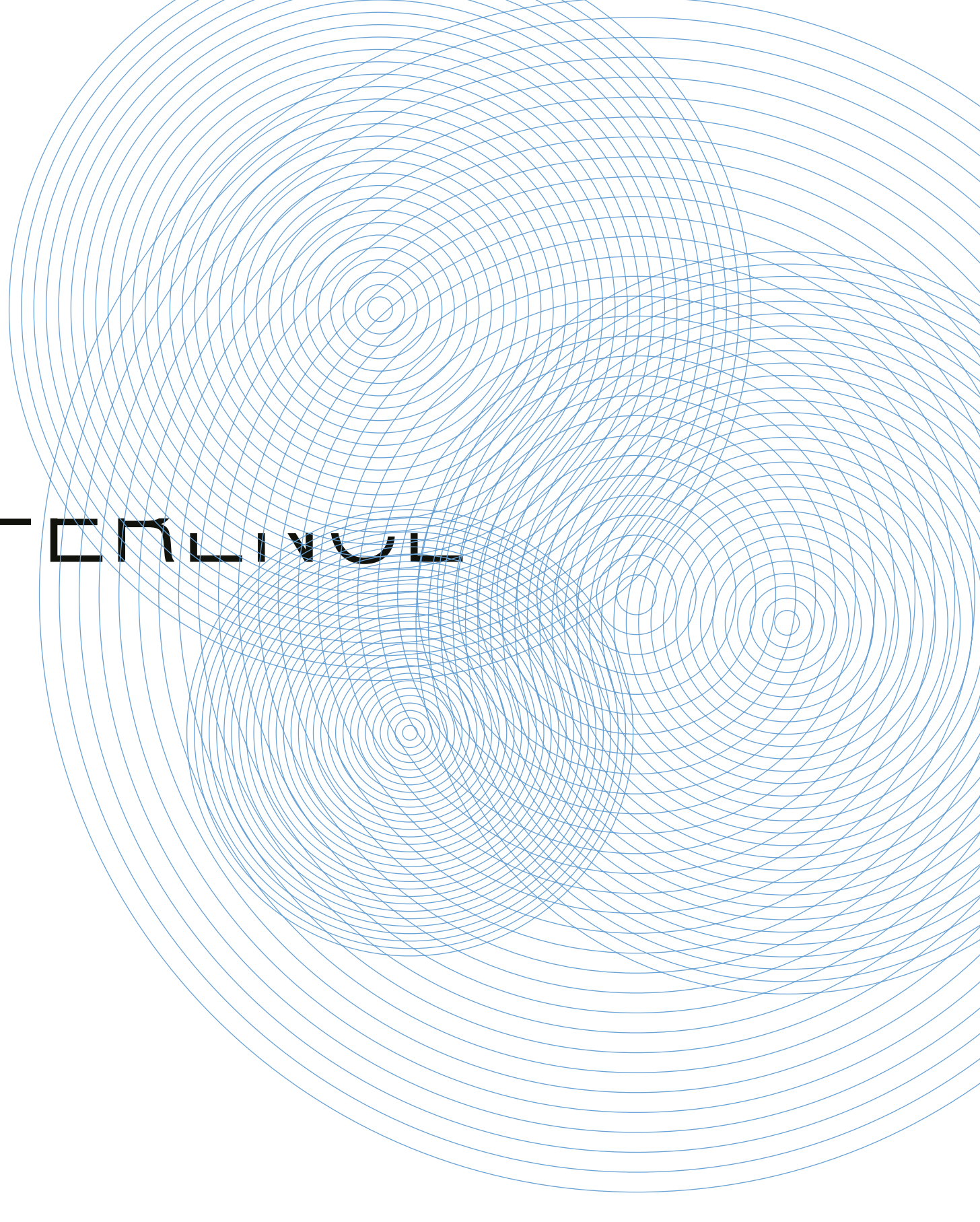
←
Card. Lettering exercise by PATRYCJA POJDA
Course: Typography and Design of Sign
Interior Architecture I, semester 4,
academic year 2011/2012

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124 → 125

Biophilic design in architecture
and interior design – selected
design problems in the area of
didactics and practice

GENERAL





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Biophilic design in architecture and interior design – selected design problems in the area of didactics and practice

ABSTRACT

As a result of the growing technocratic dominance in urban and architectural design in the second half of the 20th century, ignoring human needs and lowering the quality of life, the ideas of sustainable development, in which man becomes the subject of design again, are currently beginning to revive. In architectural design, including interior design, the tendencies of humanocentrism and references to the natural environment reappear. One of these trends is biophilic design, which, assuming an innate human tendency to feel connected with nature as one of the determinants of development and shaping people's behaviour, defines a range of issues and ways to include them in design practice.

The issues related to the above-mentioned trend escape a clear scientific description as they concern human

interactions and related feelings in various situations and contexts. Nevertheless, they are the field of creating design solutions and assessing their results in the research by design formula.

The article describes the general assumptions and development of the design direction, the tools used and the affinities with other related activities in architecture. The examples of the authors' didactic and implementation experiences are the background for attempts to formulate further conclusions for the design and education of an architect.

Introduction

Pro-ecological activities, or in a broader terms sustainable development, are mainly perceived in the context of reducing or even stopping the growth of energy usage and consumption of broadly understood goods.

Particularly, in architecture and urban planning, energy efficiency has been the dominant trend since the 1990s. Over time, it also covered broader issues related to the life cycle of a building and ecological materials¹, as well as reducing energy consumption connected with production, transport, their re-use or recycling². These trends are also reflected in the construction law (Directive of the European Commission) or in environmental marketing activities – environmental certification of buildings³.

Most of these activities are related to the dominance of technical and technological solutions, which, while contributing to the reduction of resource consumption, at the same time ignore human needs, or even reduce the

¹ Marchwiński J., Zielonko-Jung K., *Współczesna architektura proekologiczna*, Wydawnictwo Naukowe PWN, Warszawa 2012

² For example, the 3R concept (Reuse, Reduce, Recycle)

³ For example: BREEAM, LEED, DGNB, CZD

Fig. 1 Implementation of the idea of hedonistic sustainability on a small and large scale: Maritime Youth House / Mountain Dwellings, Copenhagen, BIG Architecture. The functionality of buildings is understood not only in terms of ergonomics, but above all, they also meet psychological needs. Source: author's own archive



126 → 127

Biophilic design in architecture and interior design – selected design problems in the area of didactics and practice

quality of life⁴, through the degradation of urban and architectural space as a result of the use of energy-saving solutions⁵. Currently, some architects and scientists notice this problem, and man as an economic entity appears again at the basis of thinking about a sustainable environment. Bjarke Ingels implements the concept of *Hedonistic Sustainability*, which is based on thinking about the built environment, which ensures the

⁴ Bjarke Ingels: Hedonistic sustainability | TED Talk; https://www.ted.com/talks/bjarke_ingels_hedonistic_sustainability, [download 30.12.2020]

⁵ Gil A., Zalewski K., *Zero-energy or zero-architecture building?. Designing aspects in context of building's commercial success*, [in]: Arts, performing arts, architecture and design. International Multidisciplinary Scientific Conference on Social Sciences and Arts SGEM 2014, Albena, Bulgaria, 1-10 September 2014. Conference proceedings. Vol. 1, Sofia : STEF92 Technology, 2014 p. 1167-1174

psychological comfort of an individual's life and stimulates social effects⁶.

As shown by numerous experiences based on many world architectural projects – facilities that have been designed with respect for both ecological aspects and quality of life contribute significantly to positive economic results, regardless of whether they relate to the effects achieved by a business investor or the municipal economy⁷.

Research shows that future users / buyers are willing to spend more money on houses with a view of nature: 7% more for houses with perfect land development, 58% more for properties with water views and

⁶ Hedonistic Sustainability: Bjarke Ingels Discusses Designing a New Vernacular in the Face of Climate Change – Architizer Journal, <https://architizer.com/blog/inspiration/stories/bjarke-ingels-hedonistic-sustainability/>, [download 30.12.2020]

⁷ Montgomery Ch., *Miasto szczęśliwe*, Wysoki Zamek, Kraków, 2015

127% more for properties that are situated directly by the water⁸.

Introducing biologically active, accessible and inspiring areas is also a method of revitalising urban areas (e.g. the High Line in New York) or activating closed and inaccessible areas (e.g. the waste incineration plant in Copenhagen). It has also been shown that these activities have a positive effect on social interactions and a decrease in the level of crime and aggression⁹. It has also been proven that they help to build social capital, increase physical activity, improve mental and physical health, support overcoming life crises and improve the quality of life¹⁰. These phenomena are accompanied by the principle that the value of real estate,

⁸ Terrapin Bright Green, *The Economics of Biophilia*, Terrapin Bright Green, LLC, 2015. <https://www.terrapinbrightgreen.com/report/economics-of-biophilia/>, [download 20.11.2020]

⁹ Dannenberg A. L., Frumkin H., Jackson R. J., *Making Healthy Places: Designing and Building for Health, Well-Being, and Sustainability*. Island Press, 2011

¹⁰ ibidem

for which contact with nature (in various forms) was considered while implementing the project, increases significantly and gentrification of these areas is also observed – which of course has positive and negative effects.

The situation is similar in the field of interior design. The ongoing dynamic urbanisation process has moved natural spaces away from places where people are present. More and more time is spent in closed spaces (interiors), and less and less in open ones. Over the years of designing and implementing architectural objects, and as a result also their interiors, human factors were constantly ignored in favour of economic ones. In addition, the interior spaces of modern facilities are dominated by electronic devices and technologies. Notification sounds (PC, GSM), the noise of devices, lights of controls increasingly and continuously absorb and emanate on the users of these spaces, making it difficult to concentrate and rest. The result is a growing separation between humans and nature in the built environment, even reflected in total sensory deprivation¹¹. Nevertheless, contemporary research indicates that properly understood economic considerations should place greater emphasis on the aspect of psychological and emotional comfort of people. This can be observed in particular in workspaces where aspects such as access to light, natural materials, greenery, proper ventilation, space proportions and sizes, etc. have a positive effect on health and efficiency as well as employees' sense of belonging to a place and identification with the

¹¹ Heerwagen, J. [in], Kellert, S. and B. Finnegan, *Biophilic Design: the Architecture of Life*, (film) www.bullfrogfilms.com, 2011

company. These in turn have an impact on the creation of the company's identity and its importance for employees, and consequently on its value¹². These matters are closely related. Currently, these issues have been noticed by both smaller companies and large corporations, which results, in parallel with the introduction of other work models, in a change in the approach to creating an office space or, more generally, a workplace, as a friendly space, significant in the users awareness, and thus building identity of enterprises. New technologies, enabling greater mobility, have significantly contributed to changing the office as a place susceptible to transformation. This does not hinder the development of the *tech-free* trend in interiors, which motivates the interior spaces to include electronic-free zones. This is further evidence of the variety of approaches in which man is the common denominator.

Also, organizations certifying buildings include designing according to the above principles in their multi-criteria building certification systems, e.g. WELL Building Standard (IWBI), Fitwel Certification System and Living Building Challenge.

The considerations presented here only briefly draw attention to two fundamental contemporary trends in the approach to architectural design of interior spaces: ——— humanocentrism – fulfilment of psychological needs, subjectivity of human needs,

¹² Zalewski K.: *Architektura a tożsamość organizacji. Czy architektura może wspierać wartości i cele organizacji?* w: *Sztuka dla biznesu, Wspieranie kreatywności w organizacji*, p. 104 ÷ 126, ed. Agnieszka Wojtczuk-Turek, Wydaw. Nauk. PWN, Warszawa 2019

————— reference to the natural environment and its restitution – meeting the needs of a man separated from the natural environment.

These approaches are consistent with the idea of biophilic design.

The genesis and general assumptions of biophily and biofilic design

The term *biophilia* as defined in dictionaries generally means searching for a connection with nature. The term biophilia was also used by psychoanalyst Erich Fromm in his book *The Anatomy of Human Destructiveness* (1973) and it describes *a passionate love for all living things*.

American biologist, scientist from Howard University, Edward O. Wilson, in his book *Biophilia* (1984) formulated the theory of biophilia (also called BET), according to which the tendency of people to form relationships, a sense of community with nature and other forms of life is partly genetically based. He related the hypothesis he formulated to the fact that man was in constant contact with nature for most (probably over 90% of the time) of his existence on Earth. Hence the assumption that the human instinct responds positively to connection with nature. This is probably why biophilia becomes more and more important for man, for his health, for his well-being, for the regeneration of his strength in the built environment / indoor environment. These problems concern the circle of ecopsychology, which was previously called ecological psychology, and is described in the book entitled *The Voice of the Earth. An Exploration of Ecopsychology* (1992) by Theodore Roszak.

Biophilia is a subconscious, innate human tendency to feel belonging to nature, which, even in the modern world, is still essential for the physical and mental health of people^{13 14}.

On the basis of the cited idea of biophilia, there was created a trend present in architecture and design, called *biophilic design*, which uses the principles of biophilia to integrate elements of nature in urban, architectural and interior design. Thanks to this approach, you can create and psychologically improve many living and working spaces.

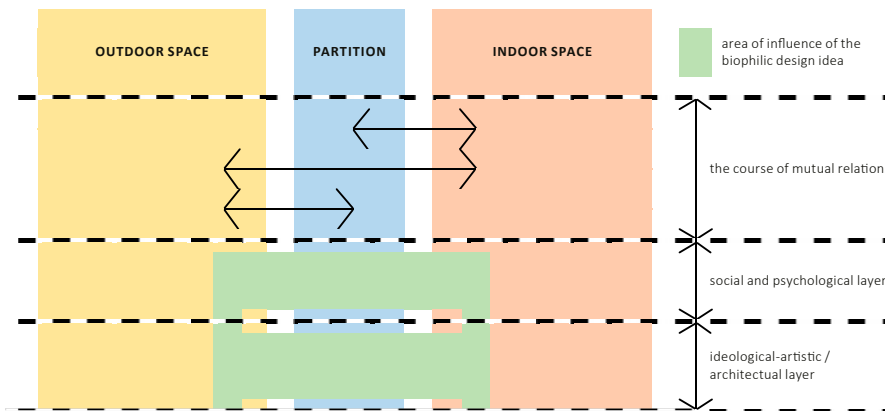


Fig. 2 Diagram showing the area of influence of the idea of biophilic design. Source: author's own study

¹³ Kellert, S.R. and Wilson, E.O. *The Biophilia Hypothesis*. Island Press, Washington DC, 1993

¹⁴ Kellert, S.R., *Building for Life: Designing and Understanding the Human-Nature Connection*, Island Press, Washington DC, 2012

Biofilic design

Design activities in the spirit of biophilic design mainly consist in increasing the possibility of connecting users living in the built environment with the natural environment. Of course, this concept is most influenced by city planners and architects, who shape the urban space, and then the shape of the building, its elements, and the interior space of the building. Of course, we omit here the entire sphere of construction, technical, installation and economic issues, intentionally focusing on spatial, utility, functional, aesthetic and psychological issues, as the domain of the architect's activity.

A structural approach to the above issues is presented by Stephen R. Kellert¹⁵ in the concept of biophilic design, which will be presented here only briefly.

The sense of the presence of nature in the interior space is realised in biophilic design by influencing the human senses, e.g. sight, hearing, touch, smell, taste. Considered one of the pioneers of biophilia design, Stephen R. Kellert (*Building for Life Designing and Understanding the Human Nature Connection* (2005); *Biophilic Design: The Theory, Science, and Practice of Bringing Buildings to Life* (2008)), described scope and possibilities of its application.

Kellert presents 3 groups of factors that are attributes / identifiers of design in the biophilic design trend:

- direct contact with nature, associated with introducing elements of the natural environment into the interior (plants, water, air, light, etc.),
- experiencing nature indirectly (natural materials and colours, organic forms, etc.),
- experience of place and space (shelter and perspective, space diversification, organised complexity, importance and connection with tradition and culture).

The known and used means of action available to the designer are:

- in terms of inanimate elements: forms / shapes / biomorphic archetypes (referring to patterns occurring in nature), materials (giving cold and warm feelings and minimally processed, referring to local geological or natural resources), air (perceived as in the natural environment), water, light (creating light conditions similar to those found in the natural environment),
- in terms of living elements: plants (direct contact with nature), animals.

The compilation of the above-mentioned elements opens up new possibilities of influence:

- arrangement and order – a reference to the spatial hierarchy found in nature,
- non-rhythmic sensory stimuli (components referring to the processes taking place in nature with their behaviour).

The specificity of the human psyche gives another extension of the possibilities of interaction / stimulation / action: views (the way of viewing space), shelter (creating a space of friendly places), unknown (arousing the observer's curiosity and interest,

¹⁵ Kellert S. R., Calabrese E. F., *The Practice of Biophilic Design*, 2005, <https://www.biophilic-design.com/>, [download 20.11.2020]

risk, threat (mobilisation to act through the size, shape of elements or material), mobility (the possibility of people to move comfortably between spaces), cultural attachment to a place (including geography and history).

Each of the elements of biophilic design should be considered and analysed individually, because there is not only one repetitive pattern of the scope of activities.

The use of the above-mentioned means creates direct relationships and connections with natural elements through diversity, movement, multi-sensory interactions.

Elements of biophilic design in didactics

The area of didactics is one of the fields of gaining experience and testing solutions that can later be implemented into design practice.

Applying the idea of biophilic design in teaching also allows students to familiarise themselves with a wider spectrum of possible design activities and a holistic approach to architecture. That is why students of Interior Architecture at the Faculty of Architecture of the Silesian University of Technology as part of the Ecological Design in Architecture (PPWA) course in semester 4 of the first-cycle studies are familiarised with the elements of biophilic design in interior design in parallel with broader environmental issues.

The design task includes the development of the concept of a city pavilion with a shelter and recreational function. An equal and complementary task is to locate the pavilion in a consciously coordinated manner

with the existing urban space, with the opportunity of possible modification of the immediate surroundings. An optional task is to define an additional function, apply and discuss solutions in the field of biophilic design and in technical terms.

It is worth emphasising that the issues indicated in the concept of biophilic design are basically known through the personal experience of the space by each of the users. That is why the students themselves often intuitively try to apply certain solutions, even though they do not have adequate, systematised theoretical knowledge. At the same time, the principles of biophilic design introduce a structuring, a kind of “road map” to didactics, which allows for ordering concepts and tools and, consequently, more conscious reading of space, its understanding and, consequently, design.

An important aspect of didactic work is also the necessity to awaken the awareness of the student / future interior architect about the need for cooperation of the architect of the designed architectural object with the construction and installation team in order to continue the ecological assumptions in interior design. Failure to understand the assumptions and cooperation may result in the destruction of the architect’s concept in terms of the ecological aspects of the facility. Of course, the reverse action is also desirable, and preferably the cooperation of both parties from the initial concept stage, in order to maintain ecological coherence, as well as the functional conditions of the interior, its significance and user identity and related aesthetics – in which, in particular in the case of a facility dedicated to a specific user, interior design can

have a key, leading and influencing importance for the entire facility.

For these reasons, within the subject, the elements of the creation of biophilic design as a supplement are accompanied by technical issues, which are dominated by the previously discussed issues of ecological and engineering couplings regarding the solutions used.

One of the examples of activities undertaken by students are studies of combining a transparent external partition with nature. This is a broad field for students to gain inspirational experiences. Understanding the wall structure made of two components: the glass pane and the supporting structure of the wall combined with a structure enabling the support and vegetation of plants, and even algae, is very valuable due to the awareness of technical problems related to the implementation and maintenance of such walls and the impact of the microclimate. The use of a “living wall” is also a new type of aesthetic that creates both interior and exterior space. Awareness of the practical application of a solution of this type that enables absorption of water, gases and dusts, acoustic protection, thermal / sun protection of interiors, and in the psychological aspect, direct contact between humans and nature in urban space is one of the elements of the didactic process familiarizing with biophilic design.

Another range of activities referring to the biophilic design trend is shaping the interior space similar to the forms found in nature, creating views (with a wide perspective and framing the perspective) as well as creating corners with visual barriers. The use of shapes occurring in nature (e.g. the form of an oak leaf) was one of the

methods of searching for the possibility of achieving this goal. Attempts were made to enhance the effect by deliberately shaping the lighting and using natural materials such as wood or bamboo to arrange the interior, creating a background for living elements – such as plants. Furthermore, the realisation of the possibility of using wood and bamboo in the future, not only in the decorative aspect, is an additional advantage for getting to know the possibilities of a wider use of these future-oriented ecological materials as structural elements in construction. Information on the development of new technologies increasing physical parameters, e.g. laminated wood (strength greater than steel at comparable production costs with the additional value of renewable / ecological material) or bamboo (high tensile strength parameters exceed even reinforcing steel) and their additional, new aesthetic values.

Another area of activity are attractive in the didactic process, concerning the design concept of internal space, internal gardens with a floor passing into the green planes (horizontal gardens) and walls (vertical gardens) make students aware of the technical aspects of their implementation. They make students realise how big the interference in the structure of the building is and whether it is feasible when adapting an existing building. Comparisons of visual effects and construction-technical effects are made with intermediate solutions, for example with plane planters or the use of extensive vegetation / greenery in conventional planters. There are also attempts to use greenery (even for small interiors) as homogeneous structures or in the form of abstract bas-reliefs or sculptures.

The idea of biophilic design does not inspire to introduce plants without limits. The use of greenery in interior spaces should be used with economic justification and closely related to the main idea of the project and should not limit the functionality of this space – and this issue is also the subject / goal of the didactic process.

That is why the elements of interior surface finishing in biophilic design are not only natural plants, but also substitutes for nature in the form of plant motifs on ceramic tiles and glass floral decorations, wallpapers and fabrics. The obtained effect is often very suggestive, thanks to the use of modern technology, modern materials and large-format formats.

Unfortunately, the ease of use and visual attractiveness of such an approach means that students do not focus on obtaining a spatial result understood as a well-thought-out and purposefully designed spatial structure but concentrate on the aestheticisation of solutions – “decorating” without an understandable intention or purpose.

Interior design is not only about static activities and forms. In their ideas, students more and more often look for variability, which is an analogy to the ongoing life, to the changes taking place in the natural environment. Students of interior design increasingly use the advantages of kinetic

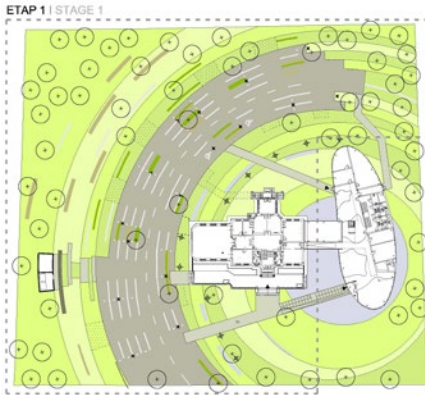
architecture and architectronics¹⁶, spatially adapting interiors to the changing needs and requirements of users and natural environment conditions, trying to create an individual environment independent of the surrounding climatic and natural environment.

The end results of these searches are not always satisfactory in terms of design achievements, but the didactic value of the transition from a static body through mechanical systems, architecture to real-time computing systems additionally connected to the Internet of Things (IoT) is valuable.

Elements of biophilic design in original projects

Ideas that appear in theoretical and didactic considerations are intertwined with solutions used in practice. David Pearson’s statement is worth quoting here: *Since we have ceased to be overly attached to straight lines and traditional shapes, we have begun to accept unprecedented angles and undulating lines, we more often reach for*

¹⁶ The use of variable, movable elements in the interiors of buildings is not new in architectural design – These trends were first formulated by Buckminster Fuller in the 1960s and 1970s. Then, the idea of responsive architecture appeared, i.e. responsive to the (changing) needs of users and environmental conditions. According to this idea, sensors and actuators integrated with the building allow for monitoring and regulating the conditions of the internal environment, but also contribute to facilitating changes in the internal space and adapting to the needs of various activities of users thanks to the allocation of elements of the internal structure and equipment of the functional space of the facility. This is how kinetic architecture evolved. The whole linking mechatronics and architecture becomes a system known as architectronics.



“organic” designs inspired by nature. Such solutions are found more and more often not only in modern furniture and interiors, but also in some beautiful and fascinating organic houses¹⁷.

As an example of a reference to the above ideas, may be mentioned the project of the Aquarium office building in Gliwice (Zalewski Architecture Group, authors: Krzysztof Zalewski, Adam Gil). The project included the reconstruction of the so-called Villa Neumann in Gliwice, established in the 1920s, for the new seat of Przedsiębiorstwo Wodociągów i Kanalizacji (Water Supply and Sewage Company). The concept assumed the adaptation of the existing facility to the office function, extension with a new pavilion, which was to serve as a customer service office, as well as redesigning the park surroundings of the villa. The transformation of a historic villa into an office building (stage I – completed) and its extension with a new pavilion (stage II – not yet completed) seem to be a good pretext to illustrate the issue of biophilic design. In particular, efforts were made to emphasise the respect for nature by keeping the park in its existing condition. For this purpose, the method of shaping the new facility based on organic forms and similar land development was also used. The newly designed part has an elliptical, “gentle” – organic shape that complements the historical form of the villa. The building is completely glazed (the curtain wall structure is also glass). Glass reflects the surroundings – it optically “dematerializes” the new building, and from the interior it allows direct visual contact with the greenery of



Fig. 3 Aquarium office building in Gliwice, Stage I / II (Zalewski Architecture Group, author: Krzysztof Zalewski, Adam Gil) Source: http://www.zalewskiag.com/projects/project/aquarium_kompleks_bialny_w_gliwicach

¹⁷ Pearson D., *Przyjazny dom*, Wydawnictwo Murator, Warszawa 1998

the park. Water elements were also used in the interior and in the park.

Nowadays, more and more attention is paid to the quality of the space in which we work, live and relax. It is crucial to be aware of the impact these places have on human health, which translates directly into the quality of life.

According to the PLGBC *Health Green Offices* report (2018), over 50% of respondents are not satisfied with the number of plants in the workplace¹⁸. The study shows a need to change views. The introduction and presence of natural elements becomes an important aspect contributing to the improvement of the quality of the workplace.

Good practices that introduce natural vegetation to buildings with office, commercial, hotel and residential functions are green terraces and internal gardens (horizontal and vertical).

So far, no rules have been defined as to what percentage of the area or volume of natural greenery should be in order to ensure optimal conditions for the use of the facility. The demand depends on many factors, e.g. the type of work, the level of stress, the personality of employees. An unambiguous and objective evaluation of the above-mentioned factors and other aspects is impossible. In these circumstances, the needs of users of a specific space and rational aspects of the possibility of implementation become priority.

¹⁸ Szczepaniak M., *Zdrowe Zielone Biura*, ed. Marta Szczepaniak, Polskie Stowarzyszenie Budownictwa Ekologicznego, Warszawa 2018

In the design of the headquarters of the IT company The Software House in Gliwice (Zalewski Architecture Group, author Krzysztof Zalewski, Adam Gil), the principles of biophilic design were used both to express the company’s identity and to create a diverse space dedicated to the changing activities of employees. The office with an area of 1800 m² occupies 2 floors of the historic, neo-Gothic building of the former main post office in Gliwice, currently fully adapted to service and office functions. The implementation introduces all the principles of biophilia. Direct contact with nature was ensured by the construction and providing employees with an external terrace with an area of approx. 500 m². The terrace is centrally located and accessible from the many office spaces surrounding the patio. An element of nature in the interior is a large number of living plants which appear as “green walls”, but also as “hanging gardens”. Indirect experience of nature was provided by natural materials and complementary colours – shades of grey. The dominant material is natural plywood used as elements of individually designed furniture, casings and partitions. The approach to the biophilic design trend, visually communicated by green and wood, is also a symbol of the company’s modernity and care for employees. The experience of place and space is realized through diverse spaces that are a requirement of the company’s way of working, in line with the Agile and Activity Base Working methodology, and partly also deliberate differentiation to ensure a variety of experiences and activities of employees. An additional advantage here is the contrast of contemporary interior requirements with the complexity and spatial diversity of the historic building, further enhanced by direct physical and visual

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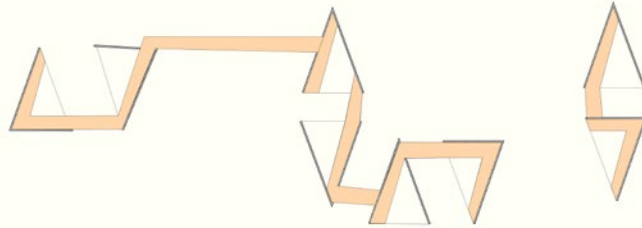
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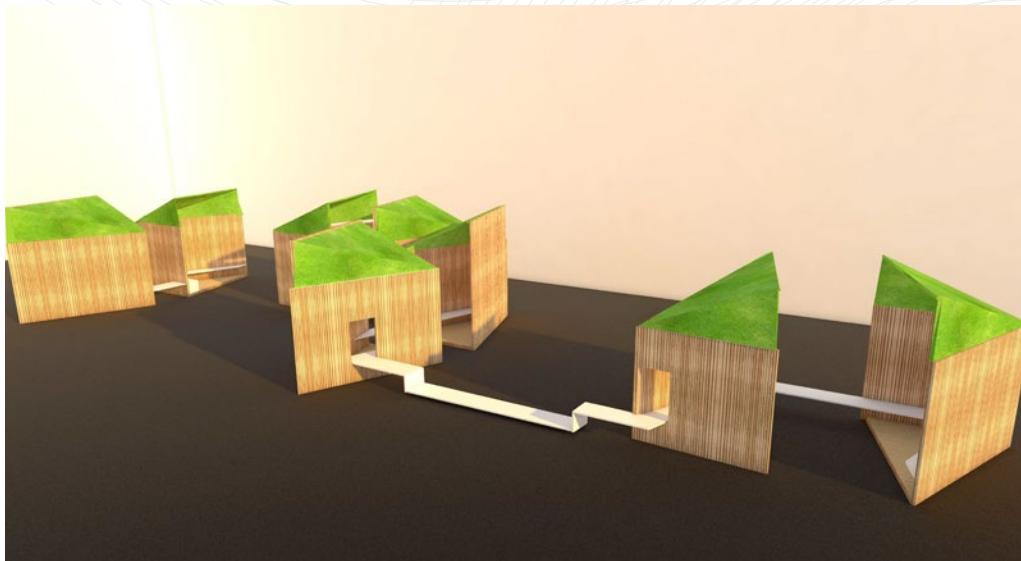


SUMMER TRIANGLE

Mieszkańcy bloków znajdujących się na osiedlu Helenka chcą spędzać więcej czasu na świeżym powietrzu, więc wynoszą prywatne meble na trawiaste przestrzenie pomiędzy blokami. Projekt jest odpowiedzią na potrzeby mieszkańców, zagospodarowaniem niewykorzystanej przestrzeni z którą mieszkańcy się nieutożsamiają. Forma Summer Triangle stwarza miejsce do spotkań dla sąsiadów, zabaw dzieci, odpoczynku na łonie natury. To powoduje integrację ludzi z otaczającą ich przestrzenią wokół miejsca zamieszkania. Całość jest wykonana z drewna, składa się z ośmiu trójkątnych modułów, połączonych ze sobą drewnianymi kładkami przechodzącymi w ławki. Mikroklimat wytwarzany w okolicy zielonego dachu zapobiega tworzeniu się "wysp ciepła".



Plan całości skala 1:200



↑
Summer triangle by ZOFIA SMOLIŃSKA
Course: Ecological Design in Architecture
Interior Architecture I, semester 4,
academic year 2019/2020

Living walls by OLGA SAPETA
Course: Ecological Design in Architecture
Interior Architecture I, semester 4, academic year
2019/2020

LOKALIZACJA:
GLIWICE, PLAC KRAKOWSKI

OBIEKT:
FORMA UŻYTKOWA, MODUŁOWA O WYMIARACH 2,9 x 4,2 x 4 M;

IDEA PROJEKTOWA:
OAZA, MIEJSCE DO ODPOCZYNKU, RELAKSU, ZACIENIONA PRZESTRZEŃ, OCHRONIĄJĄCA PRZED SŁOŃCEM W MIEŚCIE.

INSPIRACJA:
INSPIRACJĄ STAŁA SIĘ KONSTRUKCJA, JUŻ ISTNIEJĄCA NA PLACU, OBOK SKATEPARKU, KOLOROWE PRZEJŚCIE;

OAZA W MIEŚCIE

WIDOK Z PRZODU

WIDOK CAŁOŚCI I MODUŁY

W PROJEKTOWANYM OBIEKcie CZĘŚĆ KONSTRUKCJI ZOSTAŁA DESADZONA ROŚLINNOŚCIĄ, KTÓREJ ZADANIEM JEST ZACIENIENIE MIEJSCA PRZEZNACZONEGO DO ODPOCZYNKU. AZUROWA KONSTRUKCJA SPOWODOWAŁA, ŻE WEWNĄTRZ NASTĘPUJE CIĄGŁA WYMIANA POWIETRZA. CAŁOŚĆ NIE NAGRZEWA SIĘ. KONSTRUKCJA JEST PODZIEMNA NA SEDEMENTY, ORAZ WYPOSAŻONA W PANELE, KTÓRE ZABIEGAJĄ WŁODOWANE LAMPKI ORAZ SYSTEM NARADZAJĄCY ROŚLINY.

SCHEMAT PRZEPIĘTY POWIETRZA

| POLITECHNIKA ŚLĄSKA | WYDZIAŁ ARCHITECTURY | ARCHITECTURA W MIEŚCIE | SEMESTR 4 | ROK AKADEMICKI 2019/20 | PRACOWNICY PROJEKTOWANI PROJEKTOLOGICZNI W ARCHITECTURZE | AUTOR: OLGA SAPETA | PRACOWNICY PRACOWNI: DR HAB. DR ARCH. ARCHITECTURA ŻELAZNA, PRACOWNICY ZAKŁADU DR. PAŁ. ARCH. ARCHITECTURA KOSMOS

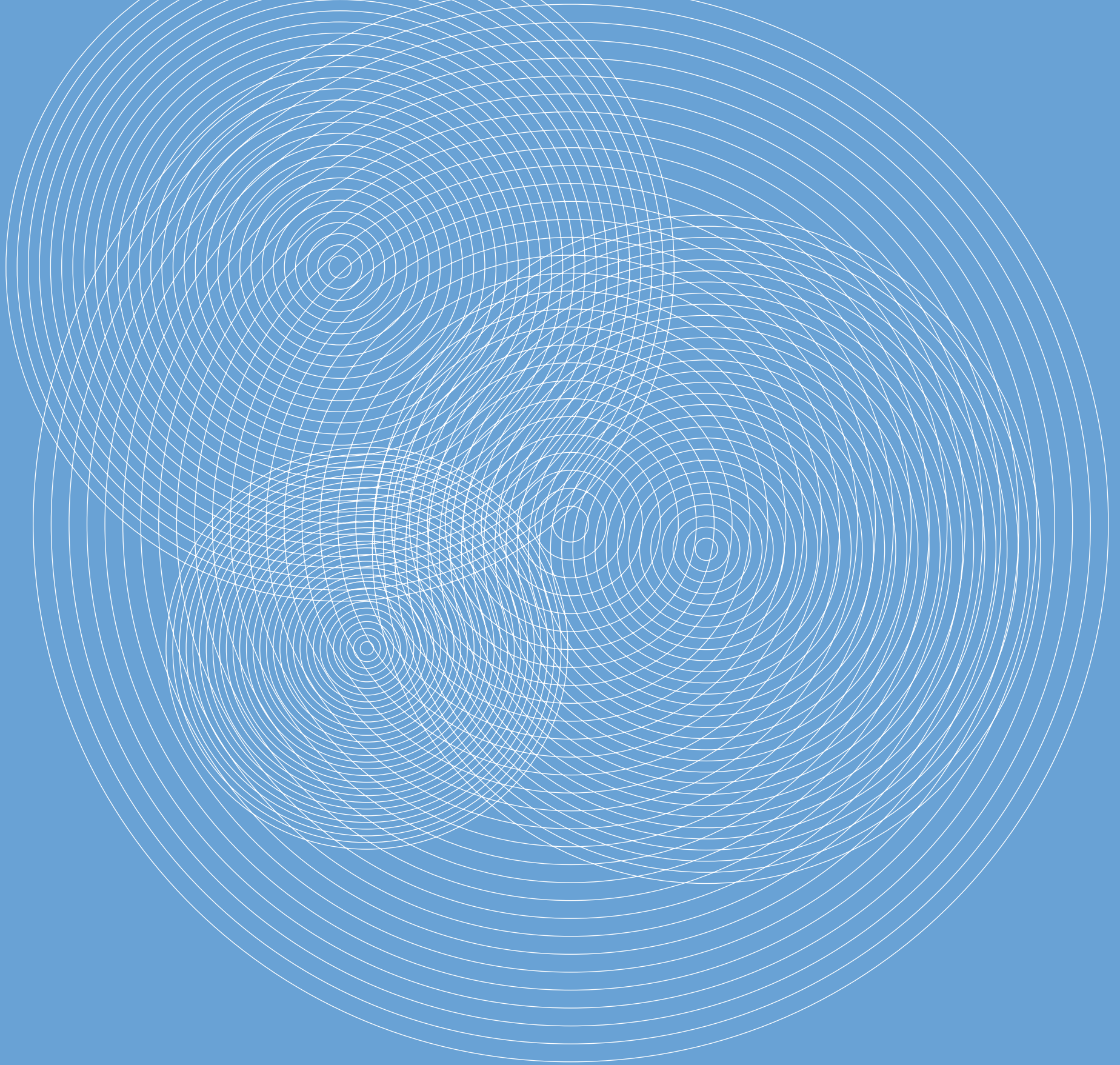
The urban oasis by WIKTORIA RUTKA
Course: Ecological Design in Architecture
Interior Architecture I, semester 4, academic year 2019/2020



Organic shapes and natural materials by OLIWIA CZOPEK
Course: Ecological Design in Architecture
Interior Architecture I, semester 4, academic year 2019/2020



Elements of biophilia in design by ANNA WYŻGÓŁ
Course: Ecological Design in Architecture
Interior Architecture I, semester 4, academic year 2019/2020





**Selected
Master's
degree
projects**

PROJEKT BAZA
ADAPTACJA HALI MAGAZYNU MODELI GZUT W GLIWICACH NA PRZESTRZEŃ **PODWÓRKA** INACZEJ



PROJECT BASE. Adaptation of the GZUT model warehouse in Gliwice by SYLWIA WOJNAROWSKA
Course: Master's degree project Interior Architecture II, semester 4, academic year 2017/2018

PROJEKT BAZA
ADAPTACJA HALI MAGAZYNU MODELI GZUT W GLIWICACH NA PRZESTRZEŃ **PODWÓRKA** INACZEJ



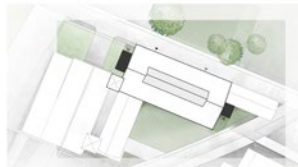


PROJEKT BAZA

ADAPTACJA HALI MAGAZYNU MODELI GZUT W GLIWICACH NA PRZESTRZEŃ **PODWÓRKA** INACZEJ

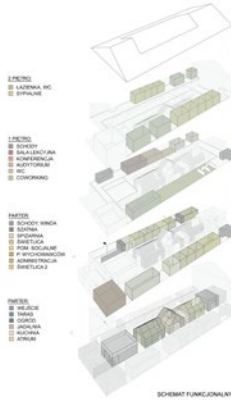


SCHEMAT KONSTRUKCJI RYS. POGŁADOWY



ZAGOSPODAROWANIE TERENU SKALA 1:500

Projekt adaptacji hali magazynu modeli Głównego Urzędu Technicznego w Gliwicach na przestrzeń podwórka. Głównym założeniem projektu jest przywrócenie się podwórka do wnętrza budynku. Podwórko to nie tylko kawałek czystej pokrytej trawą, To również miejsce służące integracji i komunikacji. Do budynku odwołujemy się przy pomocy dwóch przegród w formie czarne, metalowe kolumny, które tworzą strukturę wspierającą i zapewniają stabilność konstrukcji. Kolumny a struktura. Zamykał podwórka ma swoje odwołanie między innymi w postaci mebla pracowniczego pod niewielką szklaną - ogólną szklaną, mebla do nauki i spotkań - stół, krzesła i ławki, jak również niewielki pomieszczenie sanitacyjne. Na poziomie kondygnacji znajduje się miejsce do wspólnych prac i nauki, natomiast na samym górnym poziomie są pokoje prywatne. Zastąpiliśmy strukturę budynku zbudowaną z cegły, kontrastując ze wspierającą strukturą przemysłową. Zakładając projekt pod wpływem do wnętrza metalowych kolumn, wspierających konstrukcję stropu, wspierając strukturę całego budynku. Projekt jest skromnym przestrzenią nadaje poczucie jałki i ciepła. Po stu słowach znajduje się pomieszczenia pracowniczego, spotkania, białej oraz magazynu. Na trzecim poziomie znajdują się mieszkania parteru, funkcje to dla kultury. Na pierwszym poziomie znajduje się miejsce do spotkań przy biurku przetransformacji, wspierając, profilując jego walory architektoniczne. Ciepła ciemna barwna w dachu oraz obfite światło led umieszczonych w metalowym szkło. Materiały zastosowane w projekcie - beton, stal, szkło, mają przemysłowy charakter, są tanie i ekologiczne.



SCHEMAT FUNKCJONALNY

Plan 1 - Budynek GZUT w Gliwicach, widok

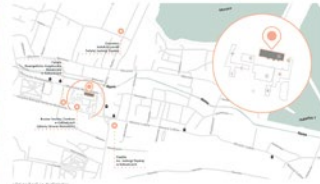
Plan 2 - Budynek GZUT w Gliwicach, widok





PROJEKT ADAPTACJI I REZERWY DAWNEGO SŁODOWNI ENNEGO BRONIKARZI SŁODOWNIA SZOPIENICE W KATOWICACH SZOPIENICE NA CENTRUM GASTRONOMICZNY I CZĘŚCIA NIEBIEŁOWA

Prace adaptacyjne i rezerwowe:
Polska Akademia Sztuki "Wzrost" Architektury, Architektura Wnętrz
Kierownik: dr hab. inż. Sławomir Wesołowski, prof. pfr.
Autor: Hanna Orlicz



Słodownia Szopienice to projekt adaptacji budynku, którego historyczną funkcję, są to historyczna słodownia Szopienice. Budynek, który został adaptowany w Słodownię Szopienice, jest to budynek, który został adaptowany w Słodownię Szopienice. Celem projektu jest adaptacja i rezerwa budynku.

Proponowane rozwiązanie jest zgodne z wymogami technicznymi, funkcjonalnymi i estetycznymi. Projekt jest zgodny z wymogami technicznymi, funkcjonalnymi i estetycznymi. Projekt jest zgodny z wymogami technicznymi, funkcjonalnymi i estetycznymi.

Wszystkie dane techniczne i kosztorysowe są zgodne z wymogami technicznymi, funkcjonalnymi i estetycznymi. Projekt jest zgodny z wymogami technicznymi, funkcjonalnymi i estetycznymi.

Wszystkie dane techniczne i kosztorysowe są zgodne z wymogami technicznymi, funkcjonalnymi i estetycznymi. Projekt jest zgodny z wymogami technicznymi, funkcjonalnymi i estetycznymi.

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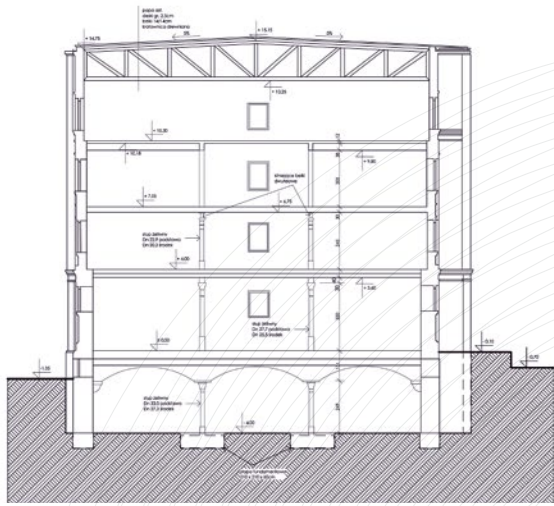
WIZUALIZACJA PUBLICZNA



WIZUALIZACJA RESTAURACJA PODZIEMIA

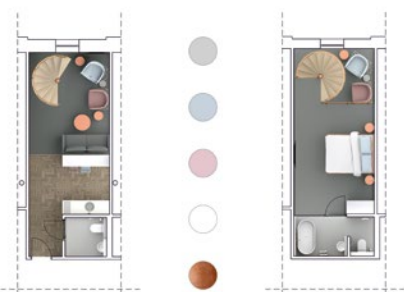
MALT HOUSE SZOPIENICE. Adaptation of the former brewery malt house to a hotel and restaurant facility by HANNA ORLICZ
Course: Master's degree project
Interior Architecture II, semester 4,
academic year 2019/2020





PROJEKT ADAPTACJI I REMONTU DAWNEJ SŁODOWNI WIELKO BROWARŃSKOJ W SŁODOWNI WIEKOWYCH W KATOWICACH SZOPENIACACH
 NA CELEK GASTROHOTELOWY I CIEPŁA HOTELOWA.
 Projekt: Architektura i Interiery
 Pracownia: Studio Architektury i Interiery
 Autorzy: Anna Kozłowska, Piotr Pięć, Rafał Pięć, Michał Pięć

○○○○○○○○○ SŁODOWNIA SZOPENICE

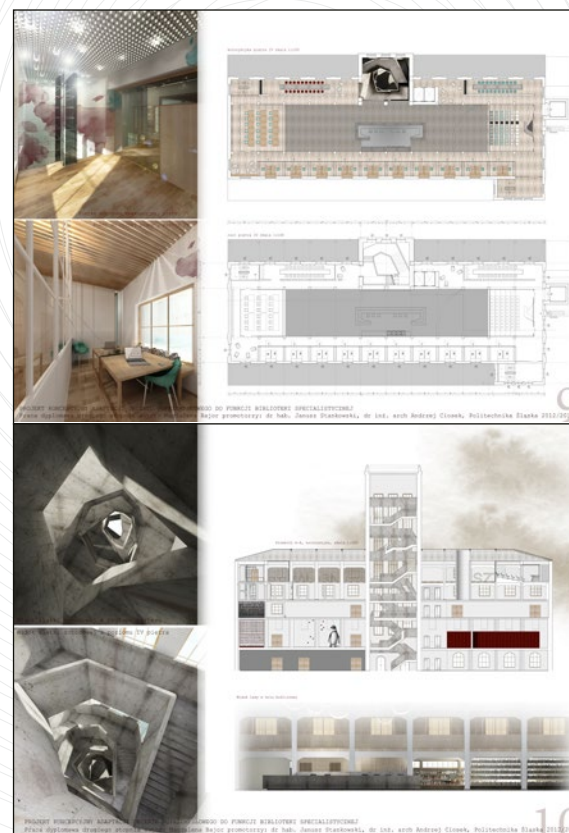
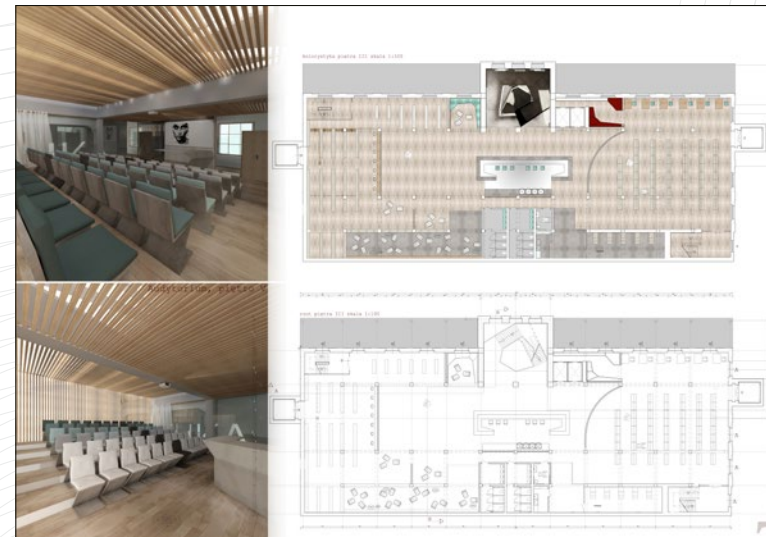


PLAN IZOLACJI I WYKONANIA PRAC
 WYKONANIE PRAC WYKONANIE PRAC
 PLAN II





Art library by MAGDALENA BAJOR
Course: Master's degree project
Interior Architecture II,
semester 4, academic year 2012/2013





Future Form of Fashion Academy
by WIOLETTA WĘGRZYNOWICZ
Course: Master's degree project
Interior Architecture II,
semester 4, academic year
2014/2015





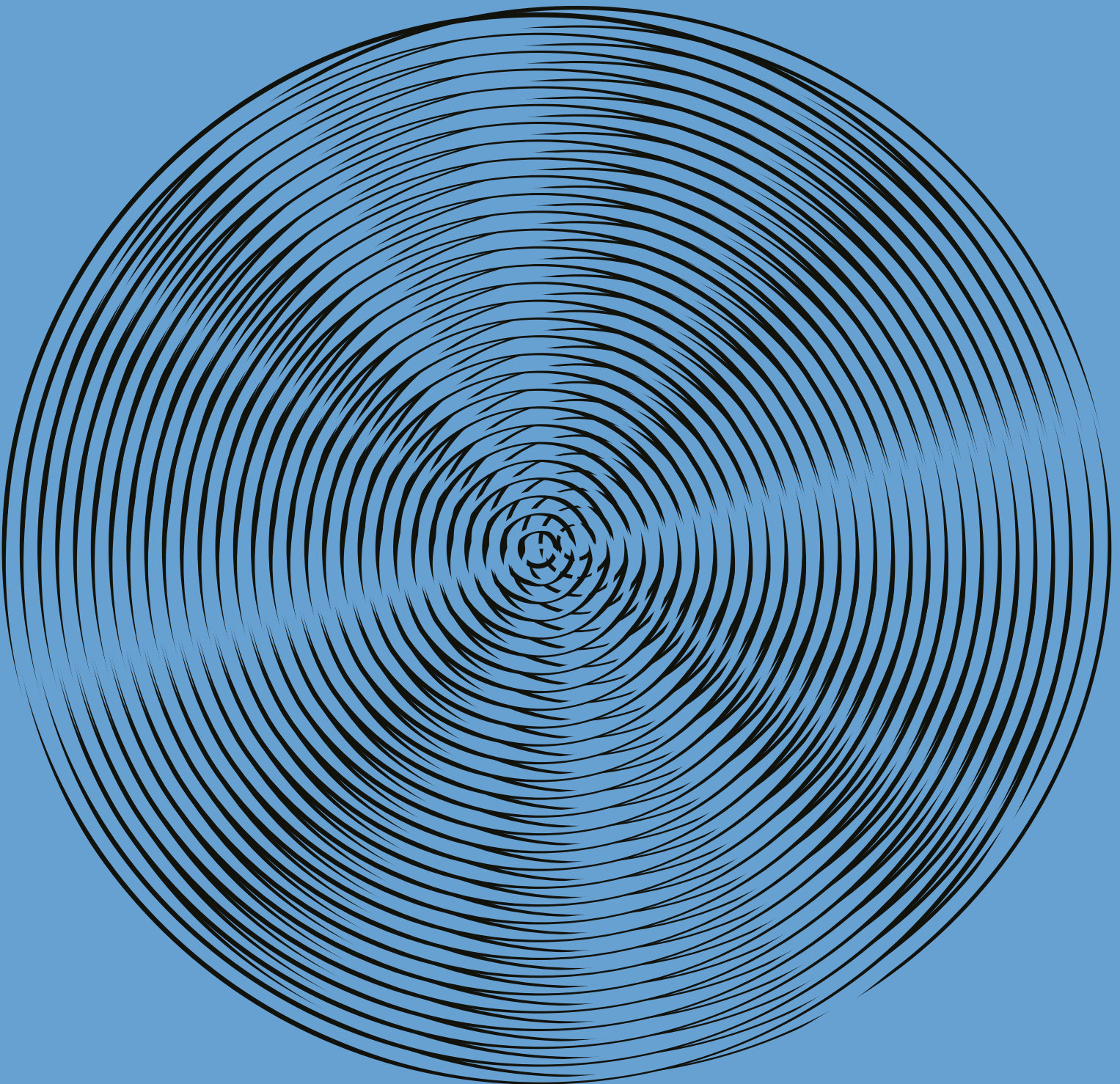
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