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DEFINING THE ARCHITECTURAL SPACE –
THE TRUTH AND LIE OF ARCHITECTURE

DEFINIOWANIE PRZESTRZENI ARCHITEKTONICZNEJ –
PRAWDA I KŁAMSTWO ARCHITEKTURY

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Contents

Spis treści

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TRUTH OF SINCERITY AND AUTHENTICITY OR LIE OF RECONSTRUCTION. WHICH DO THE VISITORS OF CULTURAL HERITAGE TRUST?

PRAWDA SZCZEROŚCI I AUTENTYCZNOŚCI CZY KŁAMSTWO REKONSTRUKCJI. KTÓREMU Z NICH UFAJĄ ZWIEDZAJĄCY MIEJSCA DZIEDZICTWA KULTUROWEGO?

Abstract

Presence of users as the main actors of each adaptive reuse of a given cultural heritage site heavily depends on the quality of their sensual experience there. This, in turn, seems to stem from how much they trust the integrity and provenance of the heritage attributes and activities pending within such historical sites. This paper aims to define the sincerity and authenticity as influential indicators of the users' trust in adaptive reuse of cultural heritage sites. To reach the goal, the author hereof has analysed all the industrial heritage sites in Iran which have been adaptively reused (case studies) and has surveyed 125 visitors. The findings confirm that sincerity and authenticity can largely influence the visitors' trust and sensitise their experience.

Keywords: industrial heritage, adaptive reuse practice, visitors' trust, sincere architecture, authentic architecture

Streszczenie

Obecność użytkowników, jako głównych aktorów każdego zaadaptowanego miejsca dziedzictwa kulturowego, zależy w dużej mierze od jakości ich wrażeń zmysłowych. To z kolei wydaje się wynikać z tego, jak bardzo ufają oni uczciwości i pochodzeniu cech dziedzictwa oraz działaniom w tak historycznych miejscach. Artykuł ma na celu zdefiniowanie szczerości i autentyczności, jako wpływowych wskaźników zaufania użytkowników zaadaptowanych miejsc dziedzictwa kulturowego. Aby osiągnąć zamierzony cel, autor niniejszej pracy przeanalizował wszystkie obiekty dziedzictwa przemysłowego w Iranie, które zostały zaadaptowane (studia przypadków) oraz przeprowadził badanie ankietowe wśród 125 zwiedzających. Wyniki potwierdzają, że szczerość i autentyczność miejsca mogą znacząco wpłynąć na zaufanie zwiedzających oraz jakość ich wrażeń.

Słowa kluczowe: dziedzictwo przemysłowe, adaptacja w architekturze, zaufanie zwiedzających, szczera architektura, autentyczna architektura

1. INTRODUCTION[1]

Numerous studies carried out in various disciplines have demonstrated that trust is a major critical factor in the shaping the users' behavior. Accordingly, literature highlights the significance of trust as one of the prerequisites to attract users to a given area.[2] Therefore, trust in turn, influences the tourism industry,[3] and historical attractions,[4] destination management,[5] festival participation,[6] and various side aspects of tourism[7].

Despite all that, the role that trust plays in attracting users to cultural heritage sites and in evoking their sensual experience, has failed to be properly recognised.[8] The issue of visiting historical sites is of dual nature. On the one hand, the emphasis of tourism falls on integrity, sincerity and authenticity, and on the other hand, we can observe efforts made to reconstruct the heritage sites to attract users[9] through comprehensive tourism and travel-related services including shops, hotels, restaurant, museums, etc. Thus, the study the actual factors attracting the users to those sites seems important as neither the site authenticity nor comprehensive tourism services[10] should be ignored.

Although tourists travel mainly to visit, understand, and experience the cultural assets rather than to have dinner in a fancy hotel restaurant, destinations cannot rely solely on their heritage assets to assure constant and high influx of tourists. Indeed, the historical attractiveness and uniqueness of a given cultural heritage site is the most influential factor in attracting the first visitors, but should these sites be visited solely for the trustworthiness of the cultural heritage[11] itself, with no first-hand tourist information,[12] surely the visitors

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[1] This article constitutes the studies of the author carried out at the Faculty of Architecture at Poznan University of Technology within the framework of the research project entitled "Mapping of architectural space, history, theory, practice, and modernity."

[2] R.V. Casielles, L.S. Álvarez, A.M.D. Martín, *Trust as a key factor in successful relationships between consumers and retail service providers*, The Service Industries Journal, 2005, vol. 25, no. 1, pp. 83–101.

[3] G. Lovell, *Can I trust you? An exploration of the role of trust in hospitality service settings*, Tourism and Hospitality Planning & Development, 2009, vol. 6, no. 2, pp. 145–157.

[4] R. Curran et al., *The traditional marketplace: Serious leisure and recommending authentic travel*, The Service Industries Journal, 2018, vol. 38, no. 15–16, pp. 1116–1132.

[5] E. Marinao Artigas et al., *Determinants of trust towards tourist destinations*, Journal of Destination Marketing & Management, 2017, vol. 6, no. 4, pp. 327–334.

[6] M. Gannon, B. Taheri, H. Olya, *Festival quality, self-connection, and bragging*, Annals of Tourism Research, 2019, vol. 76, pp. 239–252.

[7] S. Ponnapureddy et al., *The influence of trust perceptions on German tourists' intention to book a sustainable hotel*, Journal of Sustainable Tourism, 2017, vol. 25, no. 7, pp. 970–988. M.V. Deepa, K. Jayaraman, *Scale measurements for airline service quality to secure passenger confidence in air travel*, The Quality Management Journal; Milwaukee, 2017, vol. 24, no. 3, pp. 31–50.

[8] S. Navrud, R.C. Ready, *Valuing cultural heritage: Applying environmental valuation techniques to historic buildings, monuments and artefacts*, Edward Elgar, Cheltenham 2002.

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[10] S. Lochrie, *Engaging and marketing to stakeholders in world heritage site management: A UK multiple case study perspective*, Journal of Marketing Management, 2016, vol. 32, no. 15–16, pp. 1392–1418.

[11] R. Tellström, I.-B. Gustafsson, L. Mossberg, *Consuming heritage: The use of local food culture in branding*, Place Branding, 2006, vol. 2, no. 2, pp. 130–143.

[12] M. Gannon, B. Taheri, H. Olya, *Festival quality, self-connection, and bragging*, Annals of Tourism Research, 2019, vol. 76, pp. 239–252.

experience would be the waste of time and money. Arguing that individuals are more likely to truly experience the genius loci in authentic places, rather than those regenerated ones,[13] recent research studies have largely overlooked the aforementioned disappointing tourist experience. The cultural heritage sector tends to separate the protection of the sincerity and authenticity of the place (be it even for local inhabitants[14]) and the reconstruction, which seem to be two main strategies for space quality management. This issue of protection or reconstruction seems even more controversial in case of industrial heritage sites, where authenticity and sincerity, heritage, and beauty (basic factors of the genius loci) undergo fundamental changes.

2. TRUTH-RELATED CHALLENGES
MAKE UP THE CULTURAL HERITAGE

Thinking of significant tangible, intangible, natural or man-made assets,[15] heritage sites mainly attract the visitors due to their unique attributes. Cultural heritage sites can serve two purposes: places to preserve cultural assets and to generate profits through a wide range of tourism and travel-related products, facilities or services located within those sites. Introduced as an important branch of cultural heritage, industrial heritage has been the subject matter of heated debates amongst heritage studies experts. Such industrial heritage sites include examples of the surviving industrial culture of historical, technological, architectural and scientific value.[16] Because these sites have so many values accounting for various perspectives, they definitely deserve thorough studies and appropriate preservation efforts.[19,17] Despite the fact that these buildings and structures are the witnesses of the history of architectural and technological development and a symbol of social-cultural values of their times,[18] they are now under the threat of immediate destruction as their cultural assets tend to be overlooked.

While these cultural assets are primarily preserved owing to conservation efforts, their profitability is ensured through the increasing number of visitors. This has encouraged the managers operating in the cultural property sector to adapt the site offering respectively to meet the visitors' expectations. This is where all the challenges stem from. The aforementioned adaptive measures may cause irreparable damage to the authenticity of the site and largely undermine the users' trust in the genius loci.

[13] A.T. Lechner, M. Paul, *Is this smile for real? The role of affect and thinking style in customer perceptions of frontline employee emotion authenticity*, Journal of Business Research, 2019, vol. 94, pp. 195–208.

[14] S. Prince, *Working towards sincere encounters in volunteer tourism: An ethnographic examination of key management issues at a Nordic eco-village*, Journal of Sustainable Tourism, 2017, vol. 25, no. 11, pp. 1617–1632.

[15] B. Taheri, M. Gannon, M. Kesgin, *Visitors' perceived trust in sincere, authentic, and memorable heritage experiences*, The Service Industries Journal, 2020, vol. 40, no. 9–10, pp. 705–725.

[16] *The Nizhny Tagil Charter For The Industrial Heritage*, The International Committee for the Conservation of the Industrial Heritage (TICCIH), Moscow 2003. Yang, H., *A Study on Preservation, Restoration and Reuse of the Industrial Heritage in Taiwan: The Case of Taichung Creative Cultural Park*. 15th International Congress of the International Committee for the Conservation of the Industrial Heritage, Taipei, 2012.

[17] 17th General Assembly of ICOMOS, ICOMOS Press, France 2011.

[18] M. Falser, *Industrial heritage analysis*, UNESCO World Heritage Center, 2001.

This consumer distrust can be a serious marketing concern,[19] where trying to find a balance between the provision of convenient and joyful tourist experience through a comprehensive offer of facilities and services and the provision of the unique sensation based on the experience of the authenticity and sincerity of a given place may lead to serious consequences.[20] Therefore, to assure comprehensive and trust promoting management of these sites, it is crucial to identify whether the trust put in a given place results from its authenticity and sincerity or the facilities and services which have been provided through reconstruction. Such identification of the source of trust put by the visitors in cultural heritage sites is not intended to undermine the value of the cultural aspect of heritage, but it is aimed to show to what degree the genuineness and integrity of heritage sites can gain the users' trust.

3. WHAT IS THE ESSENCE OF TRUST?

The definition of trust derives from multiple dimensions that together become an indicative measure of trustworthiness[21] of an experience, a place, etc. applied across various academic disciplines. Due to the ambiguity of the definitions of trust and trustworthiness,[22] it is best to conceive their meaning in the form of multi-level concepts[23] (Table 1). There are various models for explaining trust:
- the calculus- or deterrence- based,
- knowledge-based,
- identification-based models.

Table 1.   Definitions of trust in various disciplines[24]

Year	Discipline	Definition of trust
1967[25]	Social psychology	Expectancy of an individual or group that the word or promise of someone is reliable
1992[26]	Marketing	Intention to rely on a partner

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[19] G. Enli, L.T. Rosenberg, *Trust in the age of social media: Populist politicians seem more authentic*, Social Media + Society, 2018, vol. 4, no. 1, pp. 1–11.

[20] B. Taheri et al., *Measuring host sincerity: Scale development and validation*, International Journal of Contemporary Hospitality Management, 2018, vol. 30, no. 8, pp. 2752–2772.

[21] J.A. Colquitt, B.A. Scott, J.A. LePine, *Trust, trustworthiness, and trust propensity: A metaanalytic test of their unique relationships with risk taking and job performance*, Journal of Applied Psychology, 2007, vol. 92, no. 4, pp. 909–927.

[22] G. Dietz, D.N. Den Hartog, *Measuring trust inside organizations*, Personnel Review, 2006, vol. 35, no. 5, pp. 557–588.

[23] A.M. Evans, J.I. Krueger, *The psychology (and economics) of trust*, Social and Personality Psychology Compass, 2009, vol. 3, no. 6, pp. 1003–1017

[24] R.C. Mayer, J.H. Davis, F.D. Schoorman, *An integrative model of organizational trust*, Academy of Management Review, 1995, vol. 20, no. 3, pp. 709–734.

[25] J.B. Rotter, *A new scale for the measurement of interpersonal trust*, Journal of Personality, 1967, vol. 35, no. 4, pp. 651–665.

[26] C. Moorman, G. Zaltman, R. Deshpande, *Relationships between providers and users of market research: The dynamics of trust within and between organizations*, Journal of Marketing Research, 1992, vol. 29, no. 3, pp. 314–328.

Year	Discipline	Definition of trust
1993[27]	Economy	Mutual confidence that no party will exploit the other's vulnerability
1995[28]	Management	Willingness of a party to be vulnerable to the actions of another party based on the expectation, irrespective of the ability to monitor or control that other party
2001[28]	Political science	Subject's belief that, at worst, others will not knowingly or willingly do him harm, and at best, that they will act in his interests
2007[29]	Sociology	Process of constant imaginative anticipation of the reliability of the other party's actions based on: 1. the reputation of the partner and the actor 2. the evaluation of current circumstances of action 3. assumptions about the partner's actions 4. the belief in the honesty and morality of the other side
2012[30]	Organisational Science	A subject who trusts an organisation makes themselves vulnerable to the actions of others who are guided by the organisation, based on what the actor knows about the regularities of organizational behaviour and about the behavioural incentives and norms as set by the organization
2012[31]	Public health	Optimistic acceptance of a vulnerable situation which is based on positive expectations of the intentions of the trusted individual or institution
2012[32]	Computer science	Positive expectation on future outcomes that results from proven contextualised personal interaction-histories that can be leveraged by formal and informal rules and conventions within a Social Cloud to facilitate as well as influence the scope of collaborative exchange

Researchers argue that familiarity is required to develop knowledge-based trust while trustors unfamiliar with trustees will rely on deterrence-based trust. Over time, the deterrence-based trust turns into a relational trust through repeated interaction[33] which can encourage affection between two parties, stimulating identification-based trust in the process. According to Table 1, apart from normal factors influencing users' trust such as competence, benevolence, it heavily depends on whether an organisation (or in this study a tourist destination) is capable of offering a reliable content or not.

Consequently, a certain degree of consistency in scholarly emphasis on expectancy, confidence, and reliability[34] can be found in multidisciplinary definitions of trust. As this research

[27] C.F. Sabel, *Studied trust: Building new forms of cooperation in a volatile economy*, Human Relations, 1993, vol. 46, no. 9, pp. 1133–1170.

[28] K. Newton, *Trust, social capital, civil society, and democracy*, International Political Science Review, 2001, vol. 22, no. 2, pp. 201–214.

[29] D. Khodyakov, *Trust as a process: A three-dimensional approach*, Sociology, 2007, vol. 41, no. 1, pp. 115–132.

[30] F. Kroeger, *Trusting organizations: The institutionalization of trust in interorganizational relationships*, Organization, 2012, vol. 19, no. 6, pp. 743–763.

[31] W. Gidman, P. Ward, L. McGregor, *Understanding public trust in services provided by community pharmacists relative to those provided by general practitioners: A qualitative study*, BMJ Open, 2012, vol. 2, no. 3, e000939.

[32] S. Caton et al., *Foundations of trust: Contextualising trust in social clouds*, Second International Conference on Cloud and Green Computing, Xiangtan, China, 1–3 November 2012.

[33] D.M. Rousseau et al., *Not so different after all: A cross-discipline view of trust*, Academy of Management Review, 1998, vol. 23, no. 3, pp. 393–404.

[34] D. Sirdeshmukh, J. Singh, B. Sabol, *Consumer trust, value, and loyalty in relational exchanges*, Journal of Marketing, 2002, vol. 66, no. 1, pp. 15–37.

analyses the users' trust in the cultural heritage context, the definition used herein would include belief or faith in cultural heritage sites, its staff, and services[35]. Shaped by their first experience mindset, the users' expectations might be under the influence of services that the site is offering. Thus, in respect of the users who have not visited the site before, their trust may be shaped by personal beliefs, the media, or the word-of-mouth.

Nonetheless, the users' trust might be also stimulated in other ways with the factors under the control of the cultural heritage (e.g. communication, familiarity, and visibility). As Bowden in his research demonstrates, returning visitors show affective loyalty and commitment to the sites that have earned their trust.[36] Yet, heritage sites mainly rely on new users, as the majority of the visitors come only once, particularly if they are tourists or do not live locally. Hence, it is without doubt important to identify the type of visitors (first-time or returning visitors or locals) coming to a given cultural heritage site and then to analyse the aspects on which the users' trust is founded.

4. AUTHENTIC OR RECONSTRUCTED CULTURAL HERITAGE

A heated debate in heritage studies and its marketing concerns its antecedents viewed in terms of nostalgia and its consequences viewed in terms of trust or loyalty.[37] Attributes contributing to the sincerity or authenticity of cultural heritage sites dominate the discourse on how trustworthy offer ranges the sites may provide. Interactions with the place or locals are a significant aspect of the cultural heritage characteristics, which normally result in the users' trust. However, this trust can be achieved only if those interactions are accompanied with sincerity and authenticity, which can, furthermore, accurately represent what life used to be like.[38] These host's features can be seen through two complementary dimensions:
  • sincerity in interactions,
  • sincerity in emotional responses.

Sincerity in interactions can be found in different ways, for instance; when the locals are willing to give the users some insights into their culture, not solely for a financial reward (locals) or when the visitors try to get further information about the site (place) from the staff or guide or take pictures of what they perceive as magnificent or beautiful. Moreover, sincere emotional response, either to the integrity of interactions with the locals or to the authenticity of the site itself, can lay the foundations for the visitors' trust. Therefore, the users' perception of sincerity of a given cultural heritage site is driven with the conduct of the locals or the attributes of the place. It has also been proven that the behaviour of the Locals in the sites is place-specific and this simply means that the sincerity and integration of the cultural heritage indirectly shape the social interaction therein.

[35] P. Flanagan, R. Johnston, D. Talbot, *Customer confidence: The development of a "preexperience" concept*, International Journal of Service Industry Management, 2005, vol. 16, no. 4, pp. 373–384.

[36] J.L.H. Bowden, *The process of customer engagement: A conceptual framework*, Journal of Marketing Theory and Practice, 2009, vol. 17, no. 1, pp. 63–74.

[37] A. Merchant, G.M. Rose, *Effects of advertising-evoked vicarious nostalgia on brand heritage,* Journal of Business Research, 2013, vol. 66, no. 12, pp. 2619–2625.

[38] L. Wang et al., *Consumer trust in tourism and hospitality: A review of the literature*, Journal of Hospitality and Tourism Management, 2014, vol. 21, pp. 1–9.

Authenticity, on the other hand, is often perceived with two dimensions being the existential and object-based authenticity. Object-based authenticity is associated with the way people see themselves in relation to objects and with the users' perception of cultural heritage assets.[39] If the object is considered appropriately native, the users may trust its provenance and this can potentially positively contribute to the overall perception of the site as authentic, while the reconstructed object probably deprives the users of such authenticity perception.[40] Although reconstruction in general tends to add value to the cultural heritage sites in order to make them financially profitable or attractive to visitors, yet it can seriously jeopardize the integrity and authenticity of such sites. In other words, before extending the offering of cultural heritage sites by adding services and facilities in a reconstruction process, we should first thoroughly study the pros and cons of its results because such reconstruction may easily hide various layers of heritage assets (truth) by covering them with additional structures (lie) to adapt the sites to the needs of the new services. Therefore, any values/services/facilities added in the process of reconstruction are analysed in this study as the representative values of the intended research variable; namely reconstruction.

5. RESEARCH METHOD AND CASE STUDY

The data collected for the purpose of the studies described herein originates from the "in-situ observation" and questionnaire-based interviews. Of all the industrial heritage sites and buildings in Iran, those that have been adaptively reused have been selected for the studies as the statistically representative examples enabling the assessment of the impact of reconstruction and authenticity or sincerity on the users' trust. The questionnaire was filled by 125 visitors of 25 reused industrial heritage sites in Iran. The abovementioned questionnaires consisted of trust-related, authenticity-related and reconstruction-related questions (this part concerning the added services), each scoring between 0 and 100 points based on the average results of the each section of questions. Analysing the correlation between the users' trust and authenticity and also between the users' trust and reconstruction based on the results of the questionnaires; the author hereof has attempted to find out what the impact of authenticity and reconstruction on the users' trust was.

Almost all the industrial heritage sites and buildings in Iran, the subject matter of the studies hereof, date back to the Qajar and Pahlavi eras, when the industrial culture prevailed. The selected sites and buildings testify to an intensive industrialisation process, which started during the Qajar dynasty (1795–1925) stemming from the urgent need for progress in the military technology. The process involved the establishment of modern schools in Iran, which lay the foundations for the dynamic industrialisation,[41] development of the transport infrastructure, establishment of more than 270 factories, government buildings, and national railroad network – just to name the most important progress driving factors. As a result, new

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[39] C.J. Steiner, Y. Reisinger, *Understanding existential authenticity*, Annals of Tourism Research, 2006, vol. 33, no. 2, pp. 299–318.

[40] T. Kolar, V. Zabkar, *A consumer-based model of authenticity: An oxymoron or the foundation of cultural heritage marketing?*, Tourism Management, 2010, vol. 31, no. 5, pp. 652–664.

[41] M. Mahdavinejad, M. Didehban, H. Bazazzadej, *Contemporary Architectural Heritage and Industrial Identity in Historic Districts*, case study: Dezful, Journal of Studies on Iranian-Islamic City, 2016, vol. 6, no. 22, pp. 41–50.

civil society was formed and human lifestyle changed significantly owing to the erection of the industrial facilities and buildings.[42] According to a reliable survey, recently conducted in Iran by *TICCIH*, more than 350 of such industrial heritage sites have been identified and more than 250 sites and buildings have been thoroughly investigated in various researches[43].

6. RESULTS AND DISCUSSION

First, we need to acknowledge the fact that that roughly 10% of the investigated industrial heritage sites in Iran have been adaptively reused (percentage based on the observations) and for that reason they may not be adequate to be viewed as representative data, yet somehow, they are the only examples of industrial heritage sites adaptively reused in Iran and all of them have been analysed in this study. This paper also focuses on the role of services added in the process of reconstruction and on the issue of the authenticity or sincerity as factors shaping the users' trust, viewed in the hypothesis posed herein as the influential factors. To define these factors, we have developed and carried out a questionnaire-based interview based on the criteria described in the previous sections. The table below presents the summary of results.

Table 2. Summary of questionnaire results

Variable	Sub-category	Criteria	ST.DEV	Mean	Overall Mean
Authenticity and Sincerity	Authenticity	Object-based	20.72	69.75	58.13
		Existential	14.73	49.53	
	Sincerity	Interaction	13.80	58.38	
		Emotional Response	15.41	54.86	
Reconstruction			15.52	31.18	31.18
Trust			17.17	69.85	69.85

The results of the questionnaires (Table 2) confirm that the average rates of truth perceived by the users through authenticity and sincerity (58.13%) far more exceeds the truth rate in case of the services added in the reconstruction process (31.18%). It means that all adaptive reuse practices of industrial heritage sites are reflected appropriately in terms of authenticity and sincerity. Looking at the sub-categories, we can observe that authenticity scores slightly higher on average than sincerity. On the other hand, in terms of the average score, trust shows the highest rate out of all the studied variables. Although the data shows that authenticity and sincerity score better than the services added in the reconstruction process, yet they do not answer the research question. The author has intended to identify the semantic relationship between the users' trust and either authenticity/sincerity or the values added in the process of reconstruction. Therefore, in the next stage of data analysis the author tried to find the interrelationships between the variables. Subsequently, correlations between the users' trust and each of the variables have been calculated separately (Fig. 1 and Fig. 2).

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[42] H. Bazazzadeh, H. Ghomeshi, *The White Bridge of Ahwaz*, TICCIH Bulletin, 2018, no. 81, pp. 18–19.

[43] H. Bazazzadeh, A. Nadolny, K. Attarian, B. Safar ali najar, S. Hashemi safaei, *Promoting Sustainable Development of Cultural Assets by Improving Users' Perception through Space Configuration; Case Study: The Industrial Heritage Site*, Sustainability 2020, Vol. 12, no. 12
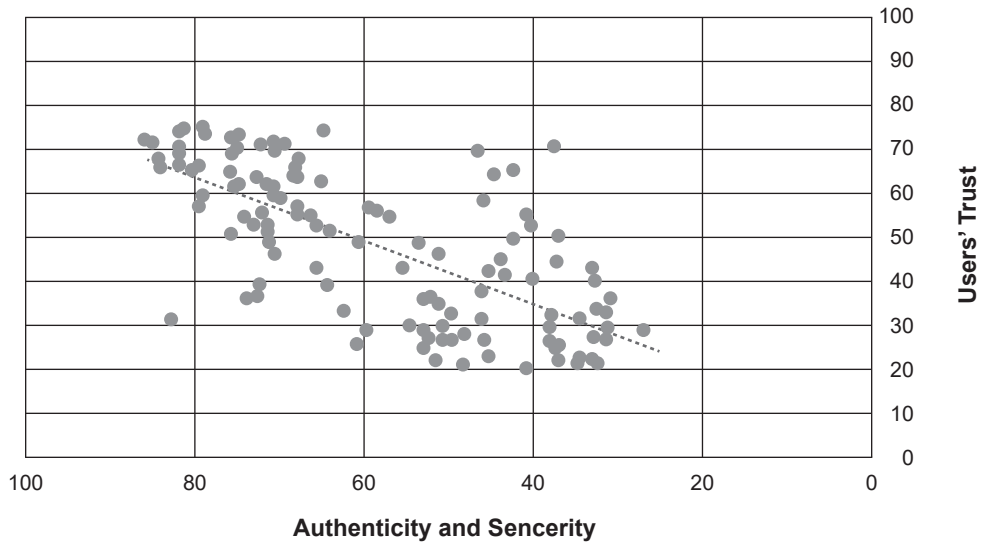
Fig. 1. Users' trust and authenticity/sincerity
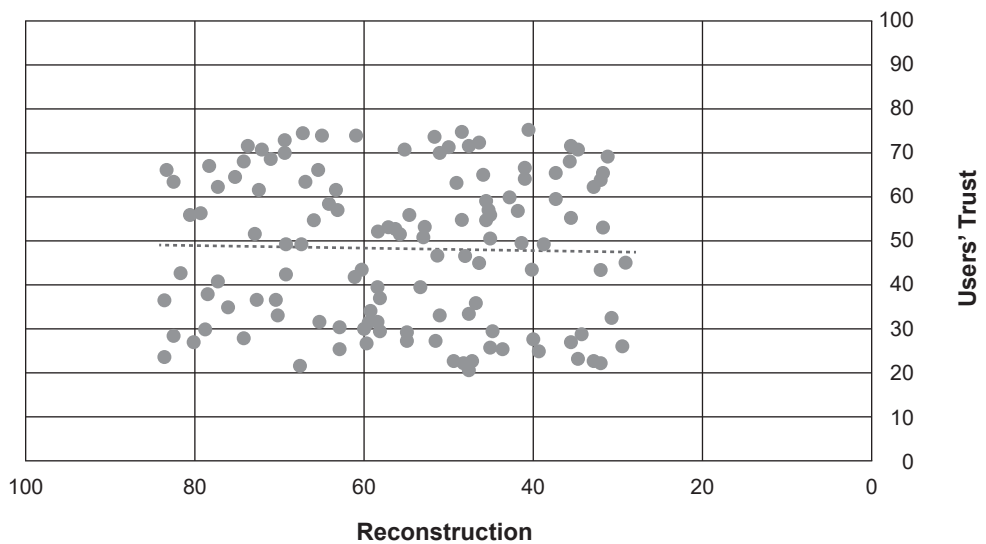
Fig. 2. Users' trust and services added through reconstruction

Although the result of the first correlation that the authenticity/sincerity renders better trust rate than elements added in the reconstruction process is not very surprising, the analysis of the second correlation seems to lead us to more fascinating findings. Calculating the Pearson correlation coefficient, we have been able to confirm that there is a clearly positive relationship between authenticity/sincerity and users' trust. On the other hand, it is even more surprising to find that there is no semantic relationship between the two variables: the users' trust and the services added in the process of reconstruction.

Table 3. Correlation matrix of the analysed variables

	(1)	**(2)**	**(3)**
(1) Authenticity/Sincerity	1		
(2) Reconstruction	0.026	1	
(3) Users' Trust	0.703	0.017	1

7. CONCLUSION

With the rising public awareness on the important value of urban cultural assets, proper management of these heritage sites has become a frequently discussed issue. On the other hand, by considering the influx of visitors to such protected sites as the determining factor that can guarantee their useful life, it seems fully grounded to analyse the aspects that attract the human traffic to them. According to the field specific literary references, if a site is trustworthy, it will be a top destination attracting not only the first-time visitors but also the locals who have already visited the site. In other words, if the site users, in general (including tourists, locals, etc.), trust a given cultural heritage site is worth seeing, their trust will translate into the popularity of the site. Thus, trust of the users can be viewed as an influential factor attracting the human traffic, hence more visitors, to the cultural heritage sites. Trust, moreover, translates into a better sight-seeing experience. Therefore, the two aspects: authenticity/sincerity and services/ facilities added in the reconstruction process, believed to be significant in shaping the users' trust are studied herein to find out if any clear semantic relationships between the users' trust and the two aspects can be identified.

Thus, by observing the users of industrial heritage sites in Iran that have been adaptively reused, we have sought to find out the source of the users' trust put in these sites. Our findings indicate that there is a strong positive correlation between the authenticity/sincerity of a given cultural heritage and the users' trust. This means that in order to attract more visitors and provide them with a better sight-seeing experience, authenticity and sincerity of the site must be always accounted for and any damage to the integrity of the cultural heritage must be deemed non-acceptable as it poses the risk that the site users' might lose trust in the site. On the other hand, while adding facilities/services to cultural heritage sites seems inevitable, if such modifications pose the risk of losing the authenticity or sincerity (truth) of the cultural legacy, then no added services will be able to pay off the damage caused.

To sum up, understanding the importance of tourist facilities in cultural heritage sites intended to improve their sight-seeing experience, we need to recognise the fact that these facilities are not the sole reason why the visitors come to these sites. The authenticity/sincerity of the sites (truth) is a factor prevailing over the additional facilities/services, which additionally pose a risk of damaging the integrity of the sites (lie). Managers in the cultural property sector should pay attention to the above stated and account for these findings when developing any cultural heritage sites.

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[8]   Curran R. et al., *The traditional marketplace: Serious leisure and recommending authentic travel*, The Service Industries Journal, 2018, vol. 38, no. 15–16, pp. 1116–1132.

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TRUTH OR LIE OF ARCHITECTURE – SELECTED EXAMPLES OF WALTER GROPIUS'S WORKS

PRAWDA CZY KŁAMSTWO ARCHITEKTURY – NA WYBRANYCH PRZYKŁADACH DZIEŁ WALTERA GROPIUSA

A b s t r a c t

In her work, the author presents the unknown buildings designed by Walter Gropius in Pomerania, focusing mainly on one of the first – the granary in Jankowo near Drawsko Pomorskie. This project is the opposite of the works for which the architect is known. The discussion of selected objects is a contribution to the reflection on the topic of truth and lie in architecture in the existing research situation.

Keywords: Walter Gropius in Pomerania, Granary in Jankowo near Drawsko Pomorskie, truth of architecture, lie of architecture

S t r e s z c z e n i e

Autorka przedstawia nieznane szerzej budynki zaprojektowane przez Waltera Gropiusa na Pomorzu, skupiając swoją uwagę przede wszystkim na jednym z pierwszych – spichlerzu w Jankowie koło Drawska Pomorskiego. Projekt ten stanowi wyraźną opozycję do dzieł, z których znany jest Architekt. Omówienie wybranych obiektów stanowi przyczynek do rozważań nad tematem prawdy i kłamstwa w architekturze w zaistniałej sytuacji badawczej.

Słowa kluczowe: Walter Gropius na Pomorzu, Spichlerz w Jankowie k. Drawska Pomorskiego, prawda architektury, kłamstwo architektury

1. INTRODUCTION

Truth, lie, false – three terms, which are used by people on a daily basis without thinking whether or not they define anything in architecture? Can they be applied to architecture? Everything seems obvious, we are used to the metaphorical truth being white, the lie being black and the falsehood being grey. However, architects can use colours, mix them and then nothing is white, black or grey anymore, or everything is a little bit.

What is more, architects are Artists, (usually) egocentrics, so if they want white can become grey, and grey can become black, or can have white spots, etc. Ultimately, like any artist, the architect, above all, wants his work to be well perceived, so if needed they will hide something "false" and expose something "real." It seems very difficult to find (or detect)

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the truth in architecture, and still it seems naïve to us that truth is definable; how to define the truth in architecture?

Walter Gropius certainly had his own truth which he describes in his book titled *The Fullness of Architecture*, a fascinating collection of essays written on architecture, the Bauhaus and the CIAM over the years. It is puzzling which works by Walter Gropius express the architectural truth, the ones of which he was proud on how to extend factory in Fagus in Alfeld, or those which he carefully hid from the world, like the granary in Jankowo near Drawsko Pomorskie. Małgorzata Omilanowska in *Walter Gropius's works in Pomerania* writes that "[…] the transfer of private photographic documentation of his work to Bauhaus-Archiv caused a real shock among researchers."[1] Suddenly they discovered the whole architecture by the great architect, but is it the real face of the master?

2. DESIGNS AND WORK BY WALTER GROPIUS IN POMERANIA

Walter Gropius, mentioned in one breath among the most outstanding architects of the 20th century next to Le Corbusier or Mies van de Rohe, at the beginning of his design path created several works in the area of today's Drawski Lakeland, which differ from today's perception of this master's architecture. He came to the village of Jankowo (before the war called Janikow) near Drawsko Pomorskie to the farm of his uncle Erich Gropius, where he designed his first buildings. There is still a granary there today, built between 1905 and 1906. Earlier, the uncle, supporting his nephew, had commissioned him to design houses for workers – two were built: the first one was built in 1904, the other in 1905.

2.1 GRANARY IN THE ERICH GROPIUS'S MANOR

The granary was one of the many buildings belonging to a large manor farm, where there were residential buildings as well as livestock buildings and rural industry workshops. The farm included, among others, the manor house, agronomist's house, carpenter's shop, livestock buildings, slurry, cowshed, pigsty and granary (which also served as a water tower) (Ill. 1).

The granary was located on the edge of the manor house, to the right of the driveway, near the main courtyard. Built in the native style – Heimatstil. The building has a compact body in which we can distinguish three parts: the main one, with a high tower embedded in it, and the southern lower one, adjacent to the main one, but not connected to it inside. The roof is covered with red tiles with dormers. On the front eastern, six-axis façade, there is a tower which is the dominant feature of the whole building, finished with a gable roof under which the clock is clearly visible. Above it there is the Prussian wall. To the right of the tower, in the central part, there is a four-storey avant-corpse ending with a gable, which was used to transport the grain easily, hence the doors on each storey. The two highest storeys were built in Prussian wall technology. Between the tower and the avant-corpse there are pairs of windows, individual axes are separated by buttresses.

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[1] M. Omilanowska in *Prace Waltera Gropiusa na Pomorzu* [in:] *Sztuka XX wieku w Szczecinie i na Pomorzu Zachodnim. Przemiany i kontynuacje*. Materiały z Seminarium Naukowego Szczecińskiego Oddziału Stowarzyszenia Historyków Sztuki, Szczecin, 18–19 listopada 2005, Szczecin 2008, p. 88.

Ill. 1.   Granary in Jankowo near Drawsko Pomorskie, current state, photo by the author, 30.10.2019

The southern part is lower than the rest of the body and is covered with a sloping roof. The three-axis facade is two-storey, separated by buttresses, on the first floor there are doors, on the second floor there are semicircular windows. The northern elevation is similar to the southern elevation, three-storey with an attic, also on it we can distinguish three axes. There are windows on the ground and first floor, and a window on the ground floor is central. There are three levels of windows in the roof slope; just below the gable a small rectangular window, below there are two levels with two dormers arranged on the axis – the higher one is smaller than the lower one.

On the west side, the three-storey rear elevation is regular six-axial (except for the far south axis). The individual axes form two pairs of windows, in contrast to the front elevation, there are three storeys under the eaves due to quite large variety of terrain. The wall was built of lime-sand brick, nowadays it is possible to observe a large ventilation of individual bricks, which creates an interesting pattern on the façade. In the interior, currently devoid of ceilings and divisions, in the main part you can observe a wooden structure – two rows of double-braced poles. The staircase was placed in the tower. The landform made it possible to design large basements.

The granary building was a multifunctional facility which can be interpret from the body of the building: the main part for storing grain, the dominant tower served as a water tower, and the southern part was probably a coach house. An art historian, Małgorzata Omilanowska, in her *Works by Walter Gropius in Pomerania*[2] believes that the facility does not give away its function. It certainly dominated the whole farmstead because of the high

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[2] *Ibidem*, pp. 85–98.

clock tower, in which there were mainly one or two-storey buildings with a gable roof. The only building that was as impressive as the granary was the manor house, which, unlike the granary building, stood alone.

Małgorzata Omilanowska writes that this way of placing the building probably satisfied the ambitions of the then young architect Gropius. It seems that one should not fully agree with Omilanowska, because the building served two very important functions for the manor house, hence its size or dominance over other buildings does not seem to be exaggerated.

2.2 RESIDENTIAL HOUSE IN DRAWSKO POMORSKIE

Another building worthy of discussion is the residential house of Elisabeth and Otto Metzler, today often called the Metzlers' Villa. It was designed and built in 1906. The building which, as Gropius indicated himself was based on Uncle Erich's court designed by the Solf&Wichards[3] office, has several features unusual for constructions at that time (Ill. 2).

Ill. 2.   Metzlers' Villa in Drawsko Pomorskie, current state, photo: author, 30.10.2019

[3] *Ibidem*, p. 90.

The building is located in a picturesque place by the Drawa River on a plot far from the street, currently hidden behind a large four-storey residential building that completely obscures it. It has undergone some changes since its creation, but the main idea of the designer has not been obliterated. It was an interesting design – two-storey building with an attic and a basement that is covered with a broken, mansard roof with extended flowing slopes – originally quite far from the front face of the wall.

It is also distinguished by its front (eastern) and gable facade. Just like in the granary, the designer used here the theme of the Prussian wall on the upper floor. On the front you can see innovative, different sized, rectangular, horizontal and vertical windows, probably matching the size, depending on the needs. This is probably the beginning of a functional ideain architecture. The southern façade has a centrally located avant-corpses ending in a gable with a clearly accentuated beam, covered with a broken roof, the sides on the ground floor have symmetrical doors, the first floor has two dormers. On the western side of the southern elevation, the roof slope was extended in a descending manner, creating a porch.

The western elevation is also very symmetrical, in the middle there is a semi-circular bay window topped with a balcony, on the ground floor there are rectangular windows on both sides, on the first floor with three windows there is a Prussian wall. The northern elevation is the simplest, it is primarily a roof slope with a dormer designed symmetrically, on the ground floor several windows of different sizes. Initially, the project[4] had a porch under the extension of the slope on the east side, built up later. A very elaborate woodcarving can be seen throughout the house, which defines the character of the buildings. The architect designed the building in the Heimatstil style, which went beyond typical designs. It owes its unusual appearance to irregular windows or unusually, extended roof slopes. It seems that certain thoughts and ideas matured in the designer, which ultimately led him to functionalism.

2.3 OTHER WORKS BY WALTER GROPIUS IN POMERANIA

There are also other Gropius's projects in the Drawsko Lake District and Pomerania. Supported by his uncle Erich, he designed in addition to houses for workers and granary a smithy (1906) and a laundry room (1906) in Janikow manor. The forge, no longer existing today, was a small one-storey building with characteristic arcades, later rebuilt and demolished in recent years. Later in 1909, he designed other houses for workers, one of which was constructed by the road leading from Drawsko to the manor. It was rebuilt many times over the years and it still stands today.

The two-storey building with a simple cubic shape is devoid of details, an avant-corps is visible on the front elevation. The projects were probably influenced by his work in Peter Behrens's office in the years 1908–1910. Erich Gropius developed his business and, with it, commissioned his nephew to carry out further projects. He purchased the Golzengut estate in the area of today's Drawsko, and Walter designed houses for workers and the manor house reconstruction there. In 1911, another house for farm workers was built in Jankowo, a symmetrical, two-storey house with a flat roof. On the south and north sides, he desighned one-storey extensions withdrawn from the main part of the building. Later, in 1912, an energy transformer by Gropius was built on the farmstead.

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[4] The original, signed by Gropius, design of the house was found by the teacher and councillor from Drawsko Pomorskie, Mr Romuald Kurzątkowski.

Gropius also received orders from other people, in Żołędowo (formerly Mittelfelde). In 1907 he designed farm buildings on behalf of the Brockenhausens, still in the style of his father. In 1913–1914, he returned to Żołędowo to design new farm buildings (henhouse, garage, guest rooms and a greenhouse). In the years 1910–1911, a manor house for Friedrich-Wilhelm von Anima was built in Miłocice according to his design, in which as in his earlier projects, symmetry dominates. A two-storey building, with a compact mansard roof, whose regularity is only disturbed by the veranda added on the south side. The front facade was five-axial with a central avant-corps with two pairs of windows placed symmetrically on its two sides, the arrangement of windows on the roof slope was a continuation of the ground floor. The axis of symmetry was emphasized by a low oblong dormer with five small windows.

In 1911, Gropius designed a malt factory in Gudowa for the Kleffel family, in which on the front elevation with an axial avant-corps with vertical stripes, ending in a massive gable, one can see on both sides of the avant-corps different window sizes. The last project carried out in Pomerania was a grain granary with accompanying buildings in Mirosławiec. A giant symmetrical building with a sparing façade, small windows, large lesenes, concave cornices, and a play of concave and convexity on the façades can be seen. Researchers believe that it is the closest to functionalism.

Analysing Gropius's works, we find two design trends. One related to the manor buildings (the manor house in Miłociny, Metzlers' Villa) which he designed in the native style, though with simplified detail, contained elements enriching the body (a fragmented body, mansard roofs, avant-corpses, oriels, rich woodcarving). The other trend was related to farm or industrial buildings. The blocks were much simpler without any details on the facades, usually covered with a flat roof.

3. WALTER GROPIUS WIDELY KNOWN AND ADMIRED

As already mentioned, Walter Gropius is one of the three great masters of the 20th-century architecture that future architects learn about. Naturally, not because of projects in Pomerania, but because of his later architectural, and above all, social works such as the Bauhaus. The architect, after establishing his own office, together with Adolf Meyer, designed the extension of the factory in Fagus. This long work, which began in 1911 and was completed in 1925, is considered very important to modernist architecture. The cuboidal block, with a reinforced concrete skeleton structure hidden inside the building (the external walls did not carry any loads), with numerous glazing in the form of curtain wall, was a modern building that has become a permanent feature in the history of architecture.

In 1914, Walter Gropius took part in the Werkbund exhibition in Cologne with his factory project, in which the form was to reflect the function. He used the architectural means of expression already known from the factory in Fagus, such as: simplified facade, curtain walls, glass combined with brick. All this was a bold proposal at the time.

In the years 1919–1928, the architect was the headmaster of the art school in Weimar which was moved to Dessau in 1925. Thanks to this, Gropius had a chance to design its headquarters, continuing the assumptions made while designing and implementing factories mentioned above. In *Pełnia Architektury* (*The full range of architecture*), Gropius writes that "The aim of the Bauhaus was not to spread any styles, systems or dogmas. It

was just about reviving the design itself."[5] What is more, he emphasizes the role of project teams. Cooperation between an architect, an artist and a craftsman was important to him, because together they can create something creative and useful – together they can change the world.

He pointed out the need to experience what is designed – students were to build the designed elements. Participation in the housing exhibition at the Weissenhof housing estate in Stuttgart was an opportunity for him to present houses made of prefabricated elements. It was supposed to be the response to housing problems he perceived.

Gropius left Nazi Germany, first for England, then the United States, where he continued his work as an architect and teacher. In the years 1938–1952, he was the Dean of the Faculty of Architecture at Harvard University. He designed, taught and published articles on architecture and the Bauhaus idea. As already mentioned, he hid his early works which saw the light of day only after the death of his second wife. Documents revealed from his private archive showed the scale of the architect's activity in Pomerania. In the monograph devoted to Gropius, written by Sigried Giedion, only one of the projects of houses for workers in Jankowo is presented.

4. THE TRUTH, FALSEHOOD OR PERHAPS AN EASY LIE OF GROPIUS

It is very difficult to determine what is truth, falsehood or lie in architecture. Filip Daszkiewicz, in *The Category of Truth in the Language of Architecture*, tries to define what truth is in architecture, draws attention to the subconscious meaning code written in our mind. If we talk about stairs, we have an idea of their appearance (they consist of steps, railings, steps, etc.). If we talk about a house, each of us has an idea of the house, depending on the age, different for children[6], teenagers, adults or elderly people, it certainly depends also on the upbringing or an environment in which a person lives.

It seems that for most people interested in architecture, Walter Gropius is a master of functionalism, international style (he himself hated the term), a brilliant creator, a teacher for many generations of architects, craftsman and artists. We subconsciously associate glass curtain walls, functionality, cuboidal solids, lack of detail on facades with Gropius. When one stand in front of the granary in Jankowo, they experience a shock, especially today when the building stands alone in the field, naively asking ourselves where Gropius is "hiding himself"? They feel cheated, lied to, because this is not what they have expected. They have wanted modernity that they get a land-shaft, with no facilities in the form of a manor farm, a lonely building with no context in a large area that looks a bit like a "Gargamel house."

Does that mean Gropius lied to us? Deceived? Or is that an easy lie? It seems, however, that it was not Gropius who lied to us, but we ourselves, having some clichés in our heads, knowing what we are going to see as recipients of architecture, we are focused on this "modern" Gropius and deceive ourselves. Hence the subsequent disappointment for which the great master cannot be blamed at all. On the other hand, while looking at the granary building in

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[5] W. Gropius, *Pełnia architektury*, Wydawnictwo Karakter, Kraków 2014.

[6] As part of classes in one of the kindergartens in Poznań, children were asked to draw their homes. Despite the fact that most children live in blocks of flats and flat roof houses, all the drawings were typical. They were one-storey with a slanted roof with a chimney, doors on the front elevation, several windows with muntin bars.

Jankowo, without looking at other works by Gropius, one can see a certain architectural lie in it, which was expressed by an unusual body for this type of function. Małgorzata Omilanowska writes about him that "[…] it is an interesting building, because its external form does not generally betray its function. The windows and the clock tower, which are too big for the granary, bring to mind a rather provincial railway station."

The thing is completely different with the apartment building for workers in Jankowo, north-east of the granary. Although there is no glass curtain wall or huge glazing, we feel much more like it is in Gropius's style – a cuboidal block topped with a flat roof, a simple detail. The Metzlers' villa, described above, although built in a native style, thanks to an unusual bend of the roof slope or unusual size of window openings seems to inscribe at least a little into the viewer's perception of Gropius's architecture, especially when looking at the front elevation, the viewer thinks of functionalism.

However, it is also worth considering this architecture through the prism of the book *Pełnia architektury* (*The full range of architecture*), in which the architect wrote down his thoughts. We can read the works of Gropius seen in Pomerania differently. In his book, the architect writes about the way each of the future designers should go through, and through which he tried to guide each of the Bauhaus students. Gropius never finished his architectural studies (he tried twice) due to a lack of drawing talent., He pointed out, however, that this is not the most important thing, he believed that academic architectural education is inadequate, because theoretical education can lead to "[…] uncritical acceptance of the current style, fashion and kitsch."[7] What is more, a graduate of such an architecture school becomes out of touch with reality, hence he emphasized the importance of internships. At the Bauhaus students were to build what they designed themselves[8].

"Any chance to leave the university and take part in at least some,… stages of building a house should therefore be used without hesitation by the young designer as the most important form of establishing a balance between knowledge and experience."[9] It seems that when Gropius wrote this, he meant himself, a man who, thanks to the support of his family, could gain architectural and construction experience. Gropius's path was that of an apprentice,[10] hence each subsequent building designed by him enriched his knowledge and experience – his architecture evolved. This is clearly visible when we compare his three works such as the granary in Jankowo, the Metzlers' Villa and the factory in Fagus.

5. SUMMARY

It seems almost certain that while designing buildings in Pomerania, Walter Gropius gave them all his knowledge and creativity that he possessed. The truth in architecture is here and now,[11] so buildings such as the granary or Metlzers' Villa, although for the contemporary viewer seemingly "non-Gropian," were architectural truth at the time of their creation. Perhaps the passage of time made them an easy lie for the viewer, not under the influence of

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[7] *Ibidem*, p.130.

[8] Unconsciously this idea is continued by the scouts building their camps every year.

[9] *Ibidem*.

[10] Wiedza akademicka, wiedza inżynieryjna [in:] autoportret, http://autoportret.pl/artykuly/wiedza-akademicka-wiedza-inzynieryjna/ (access: 11.06.2020).

[11] The author here refers to one of the definitions of the word truth: what really is, exists or was.

the architect, but precisely because of the passage of time, because of the changes that have taken place in the world around us, in society.

As recipients of architecture, we often forget about the fact that the work of an architect matures and evolves under the influence of successive projects. Not one student of architecture, at the end of their education, realises that they could have done their work better. We don't know if Walter Gropius would like to design the granary in Jankowo or the Metzlers' villa differently. The fact that he did not boast about them in his biographies suggests that he would have changed something in them. On the other hand, it is the path that has shaped him and is perhaps more valuable than the works themselves – this is the truth of Walter Gropius.

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THE TRUE HOUSE

PRAWDZIWY DOM

A b s t r a c t

The purpose of the work is to discuss the truth and mystification regarding the house. There can be many reasons why the building's form is more or less recognizable in the world of architecture. Discussion on architecture includes discussing the space in which one moves, and its limitations. The building's form constitutes a space that meets one's functional and aesthetic needs; it creates a living space. A house that meets the user's living needs, harmonizes with their life, will be called a true home. There are some forms, however, the reasons for which are unrecognizable. This is called a mystification. For the user, the space will be true, but for the observer with not enough information regarding its reasons, a mystification.

Keywords: house, dwelling, true, living, architecture

S t r e s z c z e n i e

Celem pracy jest omówienie prawdy i mistyfikacji domu. Powodów, dla których forma budynku przybiera mniej lub bardziej rozpoznawalny w świecie architektury kształt, może być wiele. Mówiąc o architekturze, będziemy mówili w szczególności o przestrzeni, w której się poruszamy i o jej ograniczeniach. Forma będzie miejscem do realizowania potrzeb funkcjonalnych i estetycznych, będzie tworzyła przestrzeń do zamieszkiwania. Taki dom, który realizuje potrzeby mieszkania, współgra z życiem użytkownika, nazwiemy prawdziwym domem. Są takie formy, których powodów powstania nie rozpoznajemy i będziemy wtedy mówić, że to mistyfikacja. Dla użytkownika tego miejsca będzie to prawdą, dla obserwującego, który nie ma wystarczającej ilości informacji o powodach powstania, mistyfikacją.

Słowa kluczowe: dom, zamieszkiwanie, prawda, mieszkanie, architektura

1. INTRODUCTION

One of the main and most basic properties of true space is its dimension. It has long been known that all real objects in a macroscopic experiment have a three-dimensional extension. This was the foundation for the three-dimensionality theorem. It was later clarified that with a frame of reference, any point in space can be determined by three numbers, and that vector-based physical quantities are decomposed into three components.[1]

It was mathematically defined what a space is, and what conditions must be met in order to describe it properly. However, one wishes they knew more about how it is perceived by our senses.

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[1] A. Mostyepanyenko, *Wymiar przestrzeni a siły przyrody* [in:] *Przestrzeń, czas, ruch*, PWN, Warszawa 1976, p. 7.

Architecture refers directly to space – to its limits (delineation), to movement within it, and to the experience of space. Limited space is needed since the limitation allows spatial perception based on the senses – an observation.

2. EXPLORING SPACE

Inside a cuboid with invisible boundaries: walls, ceiling and floor, the interference is at a maximum, i.e. 100, because the limitation of space cannot be observed. The senses cannot perceive any ambient elements, neither to admire nor to use them.

Even if the cuboid is in a forest, this cannot be seen, felt or heard. When the top cuboid wall swivels, a light crack is formed from the inside between the ceiling and the wall. A light beam penetrates inside, dimly illuminating the cuboid's interior and the interference decreases to approx. 98 on a 1–100 scale. The light reveals new elements and encourages learning. It reveals the colors and the contours of the walls or objects ahead. As a tool to showcase architecture, light illuminates walls, ceilings and objects; their functions are recognizable and possible to localize in space. The light introduces an atmosphere of mystery: some elements remain in the shade, some are more illuminated. "The eye becomes restless, is unable to fix its gaze for any length of time, and seeks distraction and rest in blue or green. This elementary effect comes from a deep-reaching emotion, that is due to spiritual development."[2] This is how Kandinsky describes the perception of colors by the eye and how it affects one's well-being. Sensitive people perceive the world differently than the indifferent. Similarly, some of the users of space will be indifferent to the variety of life scenery. Only some will appreciate the spatial nuances and their impact on well-being.

The closer to objects, the more precisely recognizable they are. At first, only the outline and then the shape. The stages of discovering an object are as follows: first a spot, then an animal, then a horse, and finally, its color. The same applies to recognizing the truth in architecture. When the object appears, its image is hazy. It is only after a closer and more careful observation that one can see the details of the surrounding objects. What can be observed initially is only the germ of truth. In architecture, the space is limited by walls; one is either its passive observer or active user. Observation yields only very superficial perception, but using the space, moving within it, allows seeing the truth. It can be said that the truth of space is directly proportional to the time and amount of its use. The truth of space is revealed in its use, therefore it is difficult for the two-dimensional presentation of architecture in drawings could provide that, which is expected. It is difficult to present and then verify the truth of architecture in its flat representation: a photo, visualization, or projection.

The truth is presented by the cuboid in time; the glow of light reveals further places. It could be said that the cuboid has layers to be unraveled: the slight roughness of the material, its texture. The nature of new things is first understood, then admired and ultimately, experienced. At this point, the cuboid space appears more distinct, but not yet believable with its dim, unknown and mysterious places. It seems just an illusion, a projection, a mirage, or just a dream. To confirm that architecture is there, the space should be enjoyed and experienced. In true architecture, there will be places that cannot be seen or touched;

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[2] W. Kandinsky, *O duchowości w sztuce* [*Concerning the Spiritual in Art*], Państwowa Galeria Sztuki w Łodzi, Lódź 1996, p. 59.

the proximities of individual movement sequences, transitions, the "in-betweens." Such passages, or proximities, will be called a functional program. A properly designed journey in space will reveal its truth. The space will feel comfortable and welcoming, and will encourage return visits.

As the journey towards the light becomes bolder, it starts involving objects. Not all of them will be used, because their purpose is unknown. Some of them are to be handled, some are for sitting. What the forest-immersed cuboid has offered becomes more and more enjoyable, and its layout becomes increasingly agreeable. The more the arrangement of elements in the cuboid space is agreeable, the lower the interference. The interference is eliminated by foregoing the elements that cause uneasiness, e.g. too high windows, too small chairs, uncomfortable armchairs. The choice of objects is made based on well-being and comfort. Therefore, the sensitive experience of space and the developed awareness of one's needs help making the right choice. The smaller the interference, the greater the comfort will be. It can be said that spatial comfort is inversely proportional to spatial distortions.

Now if human beings, considered in the terms of the "allegory," were suddenly, while still within the cave, to glance back at the fire whose radiance produces the shadows of the things being carried back and forth, they would immediately experience this unaccustomed turning around of their gaze as a disruption of customary behavior and of current opinion. In fact, the mere suggestion of such a strange stance, to be adopted while still within the cave, is rejected, for there in the cave one is in clear and complete possession of the real.[3]

3. THE INTERFERENCE AXIS

Architectural projections are designated by two spatial vectors. If they are to be fully designated, the third vector should be determined. The design should be composed of cubes and not two-dimensional geometric figures. It is thanks to the three vectors that space can be observed and manipulated, to design neighborhoods and passages and create true architecture. The true architecture relates to the man's needs, which range from simply moving from one place to another, reaching a destination, taking cover, to the higher needs: aesthetic experiences, feelings of peace, tranquility, strength, fulfillment. Architecture can more or less refer to these. The designer would do well to know what spatial solutions create a given situation, climate and how individual needs are satisfied. One cannot talk about satisfying needs if certain solutions interfere with their realization. "All means are sacred when called upon by innermost necessity. All means are a sin and lacking virtue if they do not come from this source."[4]

3.1 SPACE AS A SYSTEM FOR OBSERVING INTERFERENCE

There will be elements that affect the user to a varying degree. A threshold is a weak interference. The stairs, which will require more energy, are a greater interference, and an unused, disliked bathtub is a major interference. When walking around a crowded city, disliking crowds, one chooses the less frequented streets. One changes the spatial distortion level

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[3] M. Heidegger, *Znaki drogi*, Fundacja Aletheia, Warszawa 1995, p. 108.

[4] *Ibidem*, p. 80.

independently on the axis, from left to right, replacing the elements that generate interference with those that do not create it. When settling in, the user seeks a suitable furniture setup, constantly changing the space plan. That the user wants to have things their way baffles the uneducated designer. The user, on the other hand, is stuck with an internal need to mitigate interference. They move along the interference axis to the right, so as to eliminate all spatial proximities that interfere with their natural dwelling. An educated designer understands the nature of changes and tries to meet the spatial needs of the user so that they can reach self-fulfillment thanks to the space.

In a discourse on the users and their internal truths and needs, the individuality of the needs should be mentioned. Each user feels a desire to combine their way of life with the space they live in. For some, the house will be just a place to sleep. For some, a place to start a family. Some people consider their vehicles as homes because they spend more time in them than anywhere else. They have prepared these places to accommodate their basic needs. The feeling of home is not a feeling of being inside four walls and under a roof; it is a general expression that briefly describes the fulfillment of one's basic living needs. For example, when a child drives with their parents in a car, they feel "at home." A good car or bus design is one in which spatial interferences are not observed. The control buttons and knobs are at one's fingertips, ready for use even without looking. The seat does not cause pain during a long drive, and one can fit everything that's needed for a long trip in the trunk. Driving alone, one feels comfortable and when in company, they are not annoyed by the passengers. Everything is done in such a way that the journey goes smoothly. Movement sequences in the vehicle and the proximity of the interior elements meet the needs of the user and the situations in which they find themselves.

3.2 INTERFERENCE DISTRIBUTION
IN RELATION TO THE ARRANGED SPACE

Let us imagine space as a sequence of movements which affect the user. Moving around, one can notice that while some spaces can be negotiated with no major obstacles, and some of them are troublesome. One tries to understand how the space works, what its sequence is, and then how to live in it.

It can be said that on the one hand, when entering the building for the first time, one can feel at home and move around it as in a long-familiar place. On the other hand, a space can feel so unwelcoming that it discourages one's presence altogether. The more willingly one stays in a given space, the less interference there is. The more difficult it is to stay in a given space, the higher the interference. Please note that interference varies between individuals and affects them differently.

3.3 HOW INTERFERENCE AND ITS LEVEL
AFFECT THE PERCEPTION OF SPATIAL COMFORT

Architecture allows moving in space, in time. Time flows, and so does the space. The concept of time that accompanies space is interesting: time does not turn back, it passes and is said to heal all wounds. It does so within the future timeframe. Moreover, time passes differently under different conditions: it passes quickly when one is enjoying themselves, or can drag, because of a monotonous, tedious activity.

Since space interacts with time, the notion of comfort changes over time. Solutions chosen in the past can create new interferences in the future because of new needs. Young and strong people have no problem climbing stairs. Children use them as slides, they sit and play on them. The interference is minimal, or even none, because not only is the staircase free from interference, but it has become something new. The staircase is not just used to move between floors, albeit that's its original purpose. The stairs are used for playing, reading a book, observing the parents' interactions with the guests in the living room. However, with time, the stairs become more and more of an interference and are used less willingly. When strength fails, the stairs are the main cause of concern for the weary users. This is why it is so important to understand the space and interferences that change over time.

The perception of simple physical events is easy to investigate, because one can freely and precisely change and dose stimuli. Their importance also lies in the fact that starting from these impressions will hopefully allow reaching the understanding of more complex objects and events. If this hope is fulfilled, the examination of perception will of course be facilitated. Knowledge of our sensory systems has generally been shaped by the study of such simple physical stimuli.[5]

3.4 SHOULD THE SPACE BE ONLY COMFORTABLE?

The truth of architecture is expressed in an asserted form. The form creates a living space, i.e. comfortable presence in a space with a minimal interference that does not fluctuate in time. The interference is constant rather than highly variable. It can change periodically, but is quickly neutralized. Moreover, the space will be limited by the said form.

The architect follows the investor's guidelines, own intuitions and technical guidelines. However, each user has different needs. One wants a house to invite friends and showcase the grandeur and complexity of the forms that make up the building. The other will treat the house as a shelter, a place of refuge and homeliness. Each of these places is different and serves different purposes. However, each of them feels comfortable, which means that the interference is low and there are no large fluctuations in time. Interference can relate to the sphere of personal life as well as to aesthetic experiences. After all, the house may be partly a sculpture, providing new sensations every morning. For people who want to create a home, a house like this can have more interference than for people who consider it a showcase, a place for entertainment and meetings. All in all, the truth of the house will be referred to as living, i.e. comfortable being within a space. Mystification is inventions that do not take into account the spatial interference axis.

3.5 HOW COMFORT SHOULD CHANGE IN SPACES

If something is defined as a mystification or a lie, it will be due to a lack of understanding of the reasons behind the form. Spatial comfort can be obtained in various ways, by various architectural means. The comfort of sitting can be achieved with a sofa, but also with an armchair. However, the sofa will generate less interference if the user is also more likely to sleep on it. It will be used for both sitting and sleeping. The armchair, on the other hand, will satisfy the need of sitting, but it is uncomfortable to sleep on. However, apart from

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[5] J.E. Hochberg, *Percepcja*, PWN, Warszawa 1970, p. 27.

satisfying the need of sitting, the armchair will also cater to the need for reading. It is hard to read comfortably on the sofa. Both of these items, the sofa and the armchair, meet the user's needs. However, interference in time is different for both of them, taking into account their future use. The interference can seem minimal at first glance but may change over time due to the user's future needs. The comfort will change, however, it should change in such a way that the fluctuations on the interference axis remain small due to the user's future needs. Therefore, it is worth considering what is required from the space and how the user will live in it.

Man cannot go directly from feeling to thinking; he must first take a step back, for only by abandoning one determination can an opposing determination appear […] Man must be temporarily free from all expressions and find himself in a state of mere possibility of expression. He must, therefore, in a way, return to the negative state of mere indefiniteness in which he was, before anything started to impress his senses.[6]

4. CONCLUSION

The house is a place built to last for dozens of years. When creating a concept, the architect surveys the user's needs and tries to meet them. However, these needs change over time. One has many different needs throughout their life. "Personality is rarely the same throughout a lifetime. Therefore, it is possible, at least in the first half of life, to enrich it, or to transform one's personality. It can be enriched from the outside, thanks to the inflow and assimilation of new, vital content. On this path, a significant enrichment of the personality can occur."[7] Therefore, the space and the objects it contains should be selected in such a way that the interference axis is minimal and periodic fluctuations are small.

The object's form shows the previously unknown spatial and aesthetic requirements of the user. For the observer, it may be a mystification since they don't know the reasons for the form. However, for the active user, it will be the truth.

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[6] C.G. Jung, *Archetypy i symbole*, Czytelnik, Warszawa 1976, p. 331.
[7] *Ibidem*, p. 106.

Ill. 1.   Very large interferences, entertainment and industry create an uncomfortable neighborhood.
          Portugal 2019. Source: Author
Ill. 2.   High interference, lack of railings creates a dangerous situation. Small interferences, the lack
          of a handrail enables a more precise contemplation of space, no boundaries. Portugal 2019.
          Source: Author

Ill. 3. Slight interferences in the place where the fence connects to the street. The stone base gets in the way. Portugal 2019. Source: Author

Ill. 4. Slight interferences, HVAC installations placed outside the building do not interfere with the free arrangement of the sports hall. Portugal 2019. Source: Author

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FIELDS OF IMAGINATION.
THE ARCHITECTURE OF WUTOPIA LAB

POLA WYOBRAŹNI.
ARCHITEKTURA WUTOPIA LAB

Abstract

Architecture in its definition is a discipline that organises and shapes space in real forms necessary to satisfy material and spiritual human needs. Once closely related to sculpture and art, today it is prone to economic factors. What is the role of architecture today? Is it supposed to serve only material human needs, or can it be more than that? The Chinese studio Wutopia Lab proves that architecture, without giving up its pragmatic aspect, can still be a space for creativity and experience for the recipient. Buildings suspended between the real and dreamlike worlds affect emotions, develop imagination, and also become a voice in the discourse about truth and lie in architecture.

Keywords: Chinese architecture, Modernism, Postmodernism, magical realism

Streszczenie

Architektura określana jest jako dyscyplina organizująca i kształtująca przestrzeń w realnych formach niezbędnych do zaspokojenia materialnych i duchowych potrzeb człowieka. Kiedyś ściśle związana z rzeźbą i malarstwem, dziś podatna na czynniki ekonomiczne. Jaka jest rola architektury dzisiaj? Czy ma służyć jedynie materialnym potrzebom człowieka, czy posiadać głębszy przekaz? Chińska pracownia Wutopia Lab udowadnia, że architektura, nie pomijając swojego pragmatycznego aspektu, potrafi być wciąż przestrzenią kreatywności i doświadczeniem dla odbiorcy. Zawieszone pomiędzy światami rzeczywistym i onirycznym budynki oddziałują na emocje, rozwijają wyobraźnię, a także wpisują się w dyskurs o prawdzie i kłamstwie w architekturze.

Słowa kluczowe: architektura chińska, modernizm, postmodernizm, realizm magiczny

Architecture strengthens existential experiences,
the individual sense of being in the world,
it is a significantly enhanced experience of subjectivity[1]

Juhani Pallasmaa

1. PARADIGM OF COMPLEXITY

Wutopia Lab was founded by architects Yu Ting and Min Erni in Shanghai in 2013. Its founders describe it as an architectural firm whose actions go beyond the classically understood definition of architecture, creating its own paradigm. In their work, they blur the boundary

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[1] J. Pallasmaa, *Oczy skóry*, Instytut Architektury, Kraków 2012. p. 51

between the designs of the building, its interior and an artistic installation, treating the culture and lifestyle of modern society as a starting point.

When looking at the work of Wutopia Lab, it is easy to note how fluidly the designers use previous architectural styles. Their projects feature both echoes of Modernism and Postmodernism that appear to conflict with one another when we note that Postmodernism was created in opposition to the pragmatic ideology of the Modernists. However, Yu Ting believes that the contemporary world, including architecture, is complex first and foremost and is subjected to different processes that often run counter to one another. Therefore, we cannot categorically say that function, form or the structure of a building are more important, or clearly state that *the ornament is a crime*.[2]

Spatial harmony based on mathematical proportions and compositions adopted on simple geometric masses dates back to antiquity, when human creativity was strongly linked with the course of nature, interpreted as the order of the universe. Attachment to the proportions of the module was present in many architectural styles, from Virtuvius, to Le Corbusier and contemporary architects.

The author of *De architectura libri decem* stated that order gives due measure to the members of a work considered separately, and symmetrical agreement to the proportions of the whole. It is an adjustment according to quantity (in Greek ποσότης). By this I mean the selection of modules from the members of the work itself and, starting from these individual parts of members, constructing the whole work to correspond.[3]

The foundation of Postmodernism was the rejection of the rank of functionality and detaching it from its previously strong link with the form. Postmodernism allowed one to strive for giving architecture a greater narrative meaning. Robert Venturi, whose *Complexity and Contradiction in Architecture* is one of the key publications for the discipline, believed it is proper to introduce humour or irony into architecture. This allowed the broad use of the style, producing both historicising, detail-rich buildings and simple, well-defined forms. The discourse between styles also included slogans, which have become a part of culture. For instance, Louis Sullivan's 'form follows function' and Bernard Tschumi's 'form follows fiction.'[4] Mies van der Rohe's 'less is more' and Robert Venturi's 'less is a bore.'[5] Despite the postmodern style no longer being popular since the 1990s and architecture displaying a greater overall plurality, it can be noted that many contemporary architectural firms reinterpret old slogans, continuing to transform them, and create their own manifestos. To Yu Ting, the idea of *antithesis* is such a manifesto.

Yu Ting, apart from being a designer, also writes articles on culture and cuisine, and is the editor of *Time + Architecture* magazine, engaging with the broadly understood issue of activating small social spaces in Shanghai. It is his home city that is his greatest field for experimentation and his inspiration. The wealth of Shanghai's culture is visible not only in

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[2] Popularized statement from the lecture by modernist architect Adolf Loos, that criticizes ornament in useful objects.

[3] M. Vitruvius Pollio, *O architekturze ksiąg dziesięć*, Państwowe Wydawnictwo Naukowe, Warszawa 1956.

[4] D. Douglass-Jaimes, *Form Follows Fiction: Ole Scheeren's TED Talk on Why Architecture Should Tell a Story* [in:] ArchDaily, 2016 https://www.archdaily.com/780997/form-follows-fiction-ole-scheerens-ted-talk-on-why-architecture-should-tell-a-story (access: 3.8.2020).

[5] P. Keskeys, *"Less Is More" vs. "Less Is a Bore": Whose Camp Are You In?*, https://architizer.com/blog/practice/details/less-is-more-vs-less-is-a-bore/ (access: 3.8.2020).

the contrast between old and new development, but also the diversity of ingredients found in local foods. The city's culture and lifestyle are a motor for everything. He sees this changing and teeming city as a system of complex processes that are often contradictory. Thus, in contemporary architecture, he sets simplicity against complexity and sees design as the combination of different ideas, often forming poetic pairings he calls *antitheses*.[6]

Yu Ting also highlights that it is the community for which the building is designed that is at the centre of creation, and it is between the building and man that architecture creates its relationship. This principle is visible in many of the firm's projects, which initially appear to be minimalist and simple forms, but in direct contact they reveal their complexity, for instance through the layers of their facades, the mixing of various types of materials or their varied translucency. Form, colour and materiality aid in conferring relationships between all of the building's elements and to create relationships between people.

To Ting, experiencing the building is significant at the level of our senses, of vision and hearing, but also appreciating the sense of touch, which was marginalised in the past. The significance of the sense of touch was observed by Juhani Pallasmaa, who devoted his book *The Eyes of the Skin: Architecture and the Senses* to this issue and noted that we discover the world via the sense of touch, which he expanded to include the dimension of architecture's carnality, but also formulated an argument that the designer works with their entire body and sense of subjectivity. Technology merely frees human fantasy and makes working easier, but this work must still take place within the artist. In a different passage, he observed that architecture cannot become a tool of pure functionality, bodily comfort and sensual pleasure, devoid of a mediating, existential task. The architects work should not be transparent in its utilitarian and rational motives; it must feature an impenetrable mystery to be able to free our imagination and emotions.[7] This definition appears to reflect the working spirit of Wutopia Lab.\

2. IN A LABORATORY OF UTOPIA

When we take a look at the firm's name, we can also see that it is also complex. The character *wu* refers to its location, the Jiangsu and Zhejiang provinces, while the Chinese character is also linked with *yo* – a Greek suffix,[8] and its name features a combination of the words *utopia* and *laboratory*.

Just as a *laboratory* is a place that is associated with conducting research and medical analyses by definition, Wutopia Lab is a field for experimentation, research and experience in the field of architecture, urban planning and broadly understood culture and art. The work of the laboratory innovatively combines the past with the future, making use of both Chinese and European aesthetic legacies, creatively transforming them into its own unique language. In contrast to current trends, proposing an architecture full of a wealth of colour, light and space, that escapes easy categorisations.

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[6] A.C. Pearson, *Design Vanguard 2018: Wutopia Lab*, 2018, https://www.architecturalrecord.com/articles/13444-design-vanguard-2018-wutopia-lab (access: 3.8.2020).

[7] J. Pallasmaa, *op. cit.*

[8] Sufiks – "a group of letters that you add to the end of a word to make another word", https://dictionary.cambridge.org/dictionary/english-polish/suffix (access: 3.8.2020).

Utopia, a term from Latin, taken directly from Thomas More's work that denotes a 'good place', but also 'a place that does not exist,'[9] which has become a permanent fixture in culture and the arts, as well as political and philosophical treatises. It is therefore the pursuit of a perfect place or an ideal form of society that, often through its illusory character, refers to some unspecified future. The utopia is thus always a vision and not something real, it is unachievable or idealised. This is also how we can look at the work of this studio – as striving for a world that does not exist.

When we enter the firm's website, we are greeted by a blue background and a shining cut in the shape of a triangle. A moment later we can see its name and sliding illustrations of the company's designs which are closer to science-fiction aesthetics than to the real world. At the bottom, we can find a request to move the illustrations. When we do so, the creed of the firm appears, which is an extension of the previously mentioned antithesis philosophy:

Through magical realism, Wutopia Lab located in Shanghai, as a cutting edge architecture studio, is aiming to create miracles in daily life based on GLOCALIZATION.[10]

Glocalization is a concept in which a product or service has a better chance of success on the global market when it is adapted to the location and culture to which it is offered. It is a factor that moderates the conditions on the local market that faces the pressure of the global business environment. That which takes place locally can impact the product and make it more attractive than the one marketed for the global economy.[11] In an architectural perspective, Wutopia Lab sees potential not only in the promotion of local materials and supporting regional economies, but also approaches the matter philosophically, believing that when one designs, one should understand the consumer, know the person to whom one's service is offered, how to adapt the function or aesthetic, or how to architecturally create an atmosphere in order to ultimately satisfy the needs and desires of local users.

2.1 GEOMETRY AND COLOUR

Instant Red was created in 2015 for a sales office of a Chinese real estate company and was designed as a small temporary structure with a floor area of around 100 m^2. It was to operate up to the sale of a villa close to which it was built, which happened already a month after its construction and this event led to its name. Temporary buildings, due to their short operation times, allow design firms to present projects that are an expression of their creative pursuits and often are formal experiments.

The developer cared not only about aesthetics and attracting the gaze of the viewer, but, most importantly, about quick and easy construction, hence the decision to use steel frame structures with sandwich panels and light polycarbonate panels as a finish. It is a material that is often used by the studio.

However, it is not the form that attracts the greatest amount of attention, as at first it appears simple and minimal, but the uniform red colour that covers all of the building's elements. Thanks to its expressive colour, the pavilion became an orientation point that made it easier to reach the villa, while the uniform coating produced a coherent effect that hid any

[9] *Utopia* [in:] *Encyklopedia PWN*, https://encyklopedia.pwn.pl/haslo/utopia;3991950.html (access: 3.8.2020).

[10] Wutopia Lab website, http://www.wutopialab.com/index.aspx (access: 3.8.2020).

[11] B. Racoma, *What is Globalization and How Does it Work?* [in:] Day Translations, 2018, https://www.daytranslations.com/blog/what-is-glocalization/ (access: 3.8.2020).

technical defects that might have arisen from its short construction time. Had a less expressive colour been chosen, the observer could have focused on the detail, while here it is the red that attracts their entire attention. On the other hand, due to the organisation of the floor plan and the nearby courtyard, the design does not have a facade that is perceived as flat, as it changes during the day due to the play of light and shadow.

Ill. 1.   *Instant Red*, source: http://www.wutopialab.com/worksinfo.aspx?id=36

The design interestingly approaches the matter of complexity in architecture. Although the pavilion appears to be something completely separate from the landscape in which it was built, it remains indirectly in a state of continuity with its surroundings. Its location near the Yangcheng Lake peninsula in Suzhou was an inspiration for the creative interpretation of Chinese transient gardens that the city is famous for. This is also the reason behind the irregular courtyard visible in the plan. The courtyard was not cut out in a random manner, as it appears from overhead. We can find simple geometric shapes of the rectangle, circle and triangle inscribed into the entire layout, bringing to mind an abstract composition by Suprematists. Here, functionality becomes secondary.[12]

2.2 ARTIFICAL WORLDS

The impact of Postmodernism can be seen in many projects by Wutopia Lab, but it is particularly evident in the design of the children's restaurant in Aranya Park. Just as in the case of *Instant Red*, here the expectations of the developer, who wanted to adapt a part of their service building into a restaurant for children during its renovation, were the starting point. This exceptional function was an opportunity for the studio to engage in even greater

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[12] Wutopia Lab in Architizer, https://architizer.com/projects/instant-red/ (access: 3.8.2020).

creativity and to adopt the idea for the space to be engaging for children and that it should develop their imagination. And so, in 2018, *Polycarbonate Neverland* was built, which owes its name to the fictitious world from the Peter Pan children's story combined with that of a popular plastic material – polycarbonate.

Polycarbonate often returns in the firm's projects due to its technical specificity, durability, resistance to cracking, design flexibility, lightness and the effect that it enables – of variable transparency. Facades made from this material change during the day – when backlit in the evening, they become radiant while not allowing anyone to peer inside the interior while still intriguing observers with the play of light and shadow. So the material becomes very plastic in creating mystery and magic.

We hope that the architectural practice of Wutopia Lab can use a rich imagination and exaggerated artistic techniques to perform "special performances" on daily life, turning everyday life into a "magic reality" and creating a daily miracle that can reveal the truth of real life. We hope that design can turn reality into an illusion without losing its truth. The Anaya Kid's Restaurant is the best example of this design philosophy.[13]

This is how Wutopia Lab describes the project in its accompanying text.

In this short summary about the meaning of the project to its authors, there appears the essential term: *magical realism*,[14] which is predominantly associated with arts and literature, and less with architecture. Magical realism is creating a space that is completely different within existing reality, a space that distorts its rational perception. Wutopia Lab explores the potential for architecture in this field.

Ill. 2. *Polycarbonate Neverland* – midnight aerial view, source: http://www.wutopialab.com/worksinfo. aspx?id=6

[13] Wutopia Lab in new.rushi.net, http://new.rushi.net/Home/Works/detail/id/218323.html (access: 3.8.2020).
[14] *Realizm magiczny w literaturze iberoamerykańskiej* [in:] *Oblicza kultury*, http://obliczakultury.pl/2015 /04/realizm-magiczny-w-literaturze-iberoamerykanskiej/ (access: 3.8.2020).

In its approach to magical realism as referred to architecture, there is a similar effect as in the case with abstract art, as the observer gains a connection with something unreal, illusory and extraordinary through a building. Here, the senses take priority over functionality, as they gain a greater significance in the process of perceiving and understanding reality. The assumption of surprise and astonishment is visible already in the approach to the building, which is set apart through its uniform and glimmering facade surface. At the point of contact with existing buildings, in which we can easily identify familiar elements of houses with doors, windows and a roof, in this remodelling project, due to the forms and materials applied, the perception is completely different, alien and mysterious.

The polycarbonate cladding envelops the existing, historicising massing of the villa. The space between its two facades features greenery and hidden stairwells. Combined with light, this measure produced an appearance of the blurring of the facade's texture, making it something intriguing. This magic is continued inside.

The Postmodern narrative mentioned in the introduction is visible in the manner of entering the building, which was not dictated by the safe idea of a clear door opening, but was its opposite. The assumption was that effort should be required to get inside, as if the building was a fortress. The building has two storeys with two hidden entrances.

Ill. 3. *Polycarbonate Neverland* – interior of the ground floor, source: http://www.wutopialab.com/works info.aspx?id=6

On the ground floor is a play area – a large, dark space filled with bubbles made from translucent polymers. Smaller plastic balls cover the floor. On the one hand, this is a reference to childhood and soap bubbles that children love to make, while on the other, the interior resembles a stage design of the moon's surface. The dream-like atmosphere is highlighted by the black, sky-like ceiling with small light fixtures that resemble stars. The walls are made from an undulating mirror-like polycarbonate texture and magnify the interior, blurring its boundaries.

The entrance to the main dining section leads through an external stairwell marked in yellow paint, which guides the user through the opening in the first facade into the area between the envelopes and then onto the first floor. The largest dining room is located centrally and has the form of a circle. Its interior is bathed in white and has a distinct ceiling with characteristic lamps that resemble floating balloons. Due to this measure, we do not register the interior as having an actual ceiling barrier. The openwork walls of the dining room are similarly confusing and blur their texturality. The circular interior does not direct the users, allowing them to leave in any place and to explore other areas of the building – smaller halls and rooms.

Wutopia Lab wanted the rooms to remain hidden / await to be discovered by young users. Both the main and ancillary spaces like bathrooms, relaxation rooms or the library were designed as a continuation of the effect of illusion and introduce varied textures, mirrors and colours. They feature slides, trampolines and sound games. One of the rooms is a courtyard, where we can find a continuation of the yellow stairs that this time lead the user even higher.

At the top of the roof of the building there is a small pavilion, special space enclosed with a red pointy roof. Both the stairwell and this expressive red colour tower over the surroundings while also allowing those inside to see the landscape as if from a lighthouse. The tree house, lighthouse, a hidden compartment where no one can find us, are also symbols of childhood that were referenced by the architects who used contemporary aesthetic means.[15]

2.3 SOMEWHERE UNDER THE RAINBOW

In 2017, Wutopia Lab designed a bookstore in Zhongshu. Assuming that contemporary bookstores and libraries are open spaces, the designers typically focus on attractively presenting their collections and on relaxation spaces.

Ill. 4.   Zhongshu bookstore – *Cave of Fireflies*, source: http://www.wutopialab.com/worksinfo. aspx?id=9

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[15] Wutopia Lab in new.rushi.net, http://new.rushi.net/Home/Works/detail/id/218323.html (access: 3.8.2020).

The space to be adapted by Wutopia Lab was located on the first floor of a modern service building that was also classical in form and was thus neutral in its aesthetic expression. The architects wanted to feature an element of surprise in their design, striving to create a new, colourful world. This new world is visible from outside, as it is the only colourful accent within the building's volume.

The arrangement was based on four functionally and aesthetically separate parts through which the reader is guided. First interior is named *The Sanctuary of Crystal* and it is a space with a minimalist expression, whose main theme is the presentation of books. All the shelves and the surrounding furniture and walls were built from materials with varying transparency. The books appear to levitate in this surreal, white chamber that resembles the interior of a palace made of ice.

The sanctuary is contrasted with a space called *Cave of Fireflies*, which resembles a dark tunnel. The user's path is outlined by shimmering blue optical fibre lights. They also feature furniture with books between them. This room is a passage to another space that has become the hallmark of the bookstore.

Ill. 5.   Zhongshu bookstore – *Xanadu of Rainbows*, source: http://www.wutopialab.com/worksinfo.
       aspx?id=9

The Xanadu of Rainbows is the largest space, open and naturally lit and filled with bookstands of all sizes, as well as places for rest. Due to the introduction of different levels, the architects created a dynamic and abstract landscape, which is comprised of wooden mountains, islands and oases filled with books. However, it is the ceiling that attracts the most attention, as it resembles a colourful artistic installation. Thin, perforated aluminium panels in running, soft lines are intended to resemble a rainbow. The space gains an original, magical atmosphere because of this.

At the end of the space, where the rainbow loses its colour, the ceiling turns from red to pink and then white, there is an entrance to a separate space, a room intended for children,

named *The Castle of Innocence*. The white space was divided by an arched wall along which there are elevations, shelves and imitations of houses with doors and windows. The application of materials with a different form of translucency made the walls appear open. At the centre of the space, on the ceiling, there is an elliptical opening through which we can see a black-painted ceiling with bright light points that resemble a starlit sky.[16]

2.4 PAIN AND A SMILE

In 2019, the studio designed the renovation of the facade of the Fenglin Road Street Community Cultural Activity Center in the Xuhui District in Shanghai. The remodelling was necessary not only because of aesthetic reasons, but technical ones as well as there had been problems with water drainage. The Center was surrounded by industrial, infrastructural and residential buildings, while the street had not significantly changed since the 1970s and it appeared as if time stopped there. The architects saw this emotion as an impulse for not as much creating a modern facade that was to present the new centre, but also to inject new energy into the life of the local community – *Infinite Transparent Smile*.

Facing the street, there are continuous walls and gables of residential buildings, occasionally there are also shops. The spatial scale is pleasant and the trees grow well. When you are walking down this road, it's like travelling back in time, as if back to the early days of reform and opening up.[17]

Ill. 6.   *Infinite Transparent Smile* – evening view of the facade, source: http://www.wutopialab.com/worksinfo.aspx?id=67

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[16] *Wutopia Lab Zhongshu Bookstore* [in:] *Divisare*, https://divisare.com/projects/364871-wutopia-lab-zhongshu-bookstore (access: 3.8.2020).

[17] *The façade renovation of Fenglin Road Street Community Cultural Activity Center, Shanghai, China by Wutopia Lab* [in:] *gooood*, https://www.gooood.cn/facade-renovation-fenglin-road-street-community-cultural-activity-center-wutopia-lab.htm (access: 3.8.2020).

To the firm's founder, the design became personal, as he had visited the area due to the illness of a relative and shopped at the nearby pharmacy. He remembered this place through the lens of hospitals and a medical school. He also had a memory of the arcade he had passed through to buy drugs gave him a moment of peace from the pain he had felt. When renovating the facade, he decided to create a contemporary arcade and add to it an element that was to make the area more lively and be a sign of comfort that he had lacked for a long time. He also noted that the lack of variance of the streets over the years made the residents feel tired and their joy of life was muffled. The arcade was to recreate memories, but also to induce the same emotions he had felt in its users.

At first glance, the very simple, grey space hides in it more than meets the eye, which can be observed when touching the facade and its coarse stone structure. It was made using a traditional method by cutting the stone with an axe. It is slow and demanding work. A single craftsman was able to make only 1 square metre of this facade in a day. The architect compared work on this facade to the process of medical treatment, which also requires patience and perseverance.

The internal arches of the arcade are to resemble a smile and were painted orange from the inside, which was to reflect the new energy of the place. The colour selection was dictated by the colour of autumn maple leaves. A maple tree stood directly in front of the building. Leaves are also visible in a different way, as metal casts immersed in the floor and facade. The metal panels are not directly visible by day, but as light changes, they can glimmer in the sun, producing an impression of actual leaves falling from trees. This was also a commemoration of a period of autumn known as maple season, which coincided with the ill family member's return to health. It was therefore an expression of hope to the designer.

Ill. 7.   *Infinite Transparent Smile* – close view of the facade detail, source: http://www.wutopialab.com/worksinfo.aspx?id=67

The design is thus something more than just a building and the facade is not an accentuation of an entrance without any greater meaning, but it is a voice in the discussion about architecture becoming a part of our emotions as a building's users and viewers. It can even convey the emotions of the designer. It can then be said to be genuine and true.[18]

2.5 BLUE AND PINK

In 2017, at the Shenzhen Biennale, Wutopia Lab was invited to renovate two buildings in the Dameisha urban village, which is a part of Shenzhen. The district in which the houses were located resembled a contemporary slum and the designers wanted to introduce a social space between them. The renovation of two buildings turned into a general reflection on the role of gender in home life, which once again focused on abstract symbolism. Hence, two buildings and two names: *His House* and *Her House*, which are defined by two determining colours: blue and pink, and the approach to their detail.

His House is blue, a colour that the architects thought to be symbol of survival and competition, qualities which describe masculine nature. The colour of the interior is supplemented by green and one room is white – dedicated to salt mining, which is associated with local craftsmanship, primarily engaged in by men. This room also has a skylight, which adds to the illumination. In a different space, one of the walls is filled with green beer bottles, while in another one there are pieces of bacon hanged to dry from the ceiling. Masculine symbols can also be found in the detail – in the use of the triangle to make doorknobs.

Ill. 8.   *His house, Her house* – evening view of the buildings, source: http://www.wutopialab.com/worksinfo.aspx?id=11

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[18] *The façade renovation of Fenglin Road Street…, op. cit.*

Her House is pink, both inside and outside, which signifies female sensitivity and delicateness. While *His House* has a single level and is minimalist, *Her House* has two storeys and features more detail and ornamentation. The ground floor is used as a multi-room social space with a place for baking, drinking tea, etc. A small patio was also fenced off and has floor made of white aggregate, as a sign of the female need for intimacy. We can reach the upper storey via sculpturally formed stairs. Here, the space as are, analogously to those on the ground floor, open and connected with arched openings into an enfilade, enabling the hosting of workshops. One of the facades features a gallery, which can be hidden behind a curtain, as if it were a veil. In places where *His House* is topped by a solid railing, in *Her House* it is a delicate, openwork balustrade. In the case of *Her House*'s doors, the door handles are different, delicately bent to form the shape of the letter C. Both houses use window openings in a different way, allowing us to peer inside but also enable people who are inside to see each other.[19]

The design is an abstract display of the differences between genders, assuming a certain simplification of this thinking, but primarily inspires interest and encourages interaction. The architects did not as much want to attract attention to the differences between genders, but to display the symbiosis of two human natures living side by side, expecting this intervention to stimulate the cultural life of the community.

3. IN PRAISE OF THE IMAGINATION

When we look at the work of Wutopia Lab, we can conclude that the building can be not only functional, aesthetically beautiful, or regulate spatial order in a certain way, but it can also be a part of its designer's personality. The guidelines of legal documents and regulations, the functional programme or the expectations of the client are always processed by the sensitivity of the designer, their expectations and motivation. The exceptionality and originality of designs lies in the approach of a firm to its work and to unrestrained imagination, which drives their actions. The designer, as if a guide, wants us to enter their world and architecture becomes a part of this game.

Wutopia Lab's projects go beyond classically understood architecture. In most cases, it is the building, its so-called skin, that attracts the greatest attention of the viewer, while in this firm's work that which is outside is often unremarkable, and that which is worth discovering can be found inside. In contrast to often repetitive, trend-following or even soulless designs, those by the Shanghai firm offer a space that evokes emotion, and sometimes even participates in the discourse on the problems of contemporaneity.

Wutopia Lab turns architectural designs into stories. They allow children to become lost in the space of the *Polycarbonate Neverland*, to lose oneself in a book underneath the cloud of the *Metal Rainbow,* or in *His House* and *Her House*, to discuss the perception of masculinity and femininity in China in a dream-like manner. They do so in each of their designs, by focusing on creating a space for play, spending time, reflection and, most importantly, relations. By mixing styles, conventions and blurring the line between truth and lie.

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[19] *Urban village renovation by Wutopia Lab* [in:] *gooood*, https://www.gooood.cn/urban-village-renovation-by-wutopia-lab.htm (access: 3.8.2020).

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[11]   *Urban village renovation by Wutopia Lab* [in:] *gooood*, https://www.gooood.cn/urban-village- renovation-by-wutopia-lab.htm (access: 3.8.2020).

[10]   *Utopia* [in:] *Encyklopedia PWN,* https://encyklopedia.pwn.pl/haslo/utopia;3991950.html (access: 3.8.2020).

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THE LINE BETWEEN TRUTH AND FALSEHOOD IN ARCHITECTURE

GRANICE POMIĘDZY PRAWDĄ A FAŁSZEM W ARCHITEKTURZE

Abstract

Architectural works, which have been created over the centuries and are still impressive to this day, were shaped on the basis of beauty patterns appropriate for their times. However, its essence is completely subjective, far from rigid rules and ways to proceed. Due to the strong commercialization of today's world, contemporary architects face a particularly tough dilemma. The challenge to design in accordance with their own beliefs is increasingly difficult. So where is the line between truth and falsehood in contemporary architecture? In order to stay on the market, is it necessary to compromise the "truth"?

Keywords: truth, beauty, aesthetics, utility, functionality, falsehood, disorder, disproportion, disharmony, randomness

Streszczenie

Powstające na przestrzeni wieków dzieła architektoniczne, które zachwycają po dziś dzień, kształtowane były w oparciu o adekwatne dla swych czasów wzorce piękna. Jego istota jest jednak całkowicie subiektywna, daleka od sztywnych reguł i sposobów postępowania. Z uwagi na silne skomercjalizowanie dzisiejszego świata współcześni architekci stają przed szczególnie trudnym dylematem. Coraz większym wyzwaniem jest projektowanie w zgodzie z własnymi przekonaniami. Gdzie zatem leży granica pomiędzy prawdą a fałszem we współczesnej architekturze? Czy aby utrzymać się na rynku, należy sprzeniewierzyć się „prawdzie"?

Słowa kluczowe: prawda, piękno, estetyka, użyteczność, funkcjonalizm, fałsz, nieład, dysproporcja, dysharmonia, przypadkowość

> *And from the poems that were written only those live*
> *that did not fear to become the truth or music.*
>
> Jan Twardowski

The search for truth in architecture ought to start from realizing the role it plays in the life of every human being. Architects are the creators of living space, they create the scenery which is the background of the human fate. Their task is to act for the benefit of the user. To quote Alexander Franta "Without architecture there is no life. […] even if we want to hide in deep backwoods, we will have to build ourselves a hut or an igloo or arrange a cave. Without architecture, we will perish."[1] The realization of this reveals the psychological aspect of architecture,

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[1] F. Springer, *Księga zachwytów*, Wydawnictwo Książkowe Agora SA, Warszawa 2014, p. 3.

according to which it should shape positive emotions in humans. Given the above arguments, it may seem that architects should only work in the service of user functionality.

However, it is impossible to ignore the fact that architecture is undeniably a field of art. Already in ancient times, creators were required to make architectural works evoke and fuel the viewers' sense of beauty and aesthetics. Although the patterns have been changing strongly over the years, there is a constant desire to achieve balanced proportions, and consequently to produce avant-garde and unique works. Despite the differences in the subjective perception of beauty by individuals, common aspects determining the success of the work can be distinguished. So, what makes the overwhelming majority of the reality around us attack with its inconsistency?

"In the simplest sense, beauty is associated with tranquility. It means harmony, no contrasts, no drama. This applies both to our everyday life, which is beautiful if it is tranquil, and to the perception of space."[2] As statistical studies show, the aesthetic value is on the tenth position of the list of criteria that customers use when selecting an architect. One would therefore expect that an experienced architect with knowledge supported by years of study would be trusted by the client. However, very often the relationship is completely different. The architect is under pressure from the investor, meeting their expectations, acting against their beliefs. This is how "false" architecture is born.

At this point, it is worth to quote the statement of the Grand Master – Mies van der Rohe:

> Never talk to a client about architecture. Talk to him about his children. It is a very simple policy. He will not understand most of the time what you have to say about architecture. An architect of ability should be able to tell the client what he wants. Most of the time the client never knows what he wants. He may have, of course, very interesting ideas, but I am not used to saying that these ideas are very thoughtless. People who aren't familiar with architecture don't know what's possible and what's not.[3]

This statement is quite radical, but it's hard not to agree that it's still valid and true.

There is no doubt that the customer must be treated with due respect. A great deal of patience is essential. An architect is a profession with special responsibility, has a kind of mission and should be aware of the duty to shape a better space. When the investor is going in the wrong direction, presenting contradictory visions, he cannot flow with the current but should turn back taking his client with him.

One can get the impression that the more difficult the relationship, the better the result. The discussion forces us to think, develop concepts, and create new, unusual solutions.

An excellent example of climbing to the heights of creativity in the face of a difficult client is the By the Way House of Robert Konieczny. As the author himself says, the client drew him a plan of the house – a design he expected. Moreover, the drawing depicted a projection of the building in which he lived and where the conversation took place. Naturally, the architect refused to accept the order, claiming that it was not a task for him, but the man did not give up.

The plot on which the building was to be located, although beautiful, posed another problem – it lacked the access road. As it turned out later, however, this aspect was transformed

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[2] S. Kuryłowicz, *Pejzaż nie byle jaki* [in:] Tygodnik Powszechny, 12.05.2007, www.tygodnikpowszechny.pl (access: 6.9.2020).

[3] V. Watson, *Never talk to your client about architecture*, The Journal of Architecture, 2002, vol. 7, no. 4, pp. 313–317, https://www.tandfonline.com/doi/abs/10.1080/1360236032000040811?journalCode=rjar 20 (access: 6.9.2020).

into an advantage, making it the leading theme of the project. The whole is made up of a ribbon containing a functional layout adapted to the needs of users. All the drawbacks were effectively covered by this element, and also made the house merge perfectly with its surroundings. Located in the middle of the communication path connecting water and land, it seems to complement the picturesque landscape of the area.

> … Let's wrap this ugly, detached from the garden house to hide it … The wrapped road creates ceilings, roof, and walls of the building, and in the middle remains this dream functional arrangement. We have one theme that sets the whole. By the Way House.[4]

Looking at the building, it is hard to believe that the accepted architectural concept was based on the necessity of "hiding" something.

Certainly, there are significant differences in the perception of an architectural object by the creator, the user, and an outside viewer. This difference is anchored in a number of associations resulting from coded cultural patterns. Sensitivity to beauty also plays a decisive role. The richness of experience shapes the scale of assessments and allows them to assign known terms. But what happens when an architect becomes his boss? One can get the impression that like an unrestrained vision of the creator, it should raise him to the heights and lead to the pure truth in architecture.

A good example of a freely depicted thought is Peter Cody's Bohermore House. This building resembles an architectural sculpture, and its individual parts do not even seem to connect from certain perspectives. The whole composition is made up of five single-story cubes lying at right angles. They are arranged alternately on opposite sides of the axis. This axis constitutes the internal communication between the individual rooms in the building, and the spaces between the volumes have become terraces.

The degree of functionality of the building is surprising. Quite expansive actions within the form did not affect its usability. The relationship that was created with the surroundings of the house is also extremely important. As the author himself stated: "For people, I build suburban houses, which are scaled and detached from their setting. I felt a strong need to build a house with architecture sensitive to the surrounding landscape". Without a doubt, this architect is aware of how important it is to create a proper relation between the building and its surroundings. However, one can guess that in the case of most clients it would be difficult to count on the understanding and full confidence in the realization of this unusual concept. The strength of the vision of traditional construction anchored in the human mind makes it difficult for them to even think about going beyond the scheme.

Ludwig Wittgenstein's observation is excellent: "The difference between a good and a poor architect is that the poor architect succumbs to every temptation and the good one resists it."[5] It is difficult to disagree with him because nowadays it is increasingly common that giving another person false applause is a more profitable solution than serving the truth. The world around us, however, is not a utopia, but a struggle with the brutality of everyday life. The book by Piotr Sarzyński "Wrzask w przestrzeni" (Scream in space) perfectly illustrates the problem of quality of architecture. The title word "scream" is crucial here. The narcissistic approach of an architect, and more often than not of an investor, is the result

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[4] Dom po drodze [in:] KWK PROMES, https://www.kwkpromes.pl/dom-po-drodze/151 (access: 6.9.2020).
[5] Pejzaż nie byle jaki [in:] Sztuka architektury, https://sztuka-architektury.pl/article/4468/pejzaz-nie-byle-jaki (access: 6.9.2020).

of a building that seems to "scream" to the viewer, and when you put several such objects together, you can easily notice that each of them does it on a different tone. As a result of the desire to demonstrate "class" and wealth, a huge disharmony in space is created. The lack of cooperation is very often built on contempt for what is around.

There is no denying that architects who serve the truth and thus make their mark on the pages of history are above all brave people. Without taking the risk, it is difficult to realize a memorable work. In creativity, changeability, lack of attachment to any schemes, and the need for permanent search are particularly important. A good architect must understand how important it is for him to live in harmony with change because it is the driving force behind the idea. The architectural "ideal" is the result of constantly starting again and again.

The innovative approach in form and design is illustrated by a concept which, despite being created more than forty years ago, still seems to be up to date and extremely inspiring. The experimental house near Warsaw was designed by Jan Szpakowicz in the '60s and illustrates the designer's radical approach to space creation. The concept was born out of the desire to live in a part of the forest, without being separated by a structure. It involves the creation of nine blocks connected by ceilings. The whole consists of a house together with a space open to the landscape. Although there are some quite significant drawbacks, the architect acted according to an idea to which he remained faithful. The cognitive creation of space, the main assumption of which was to create a relationship between what is open and what is closed, influenced the definition of the object's character. The building can also be treated as an answer to the then standardized mass residential buildings in Poland.

Another, more contemporary, significant example of the demonstration of courage by an architect, which resulted in the birth of true architecture is the Mieczyslaw Karlowicz Philharmonic in Szczecin. The concept was selected based on competition and the winner was the Catalan studio Estudio Barozzi Veiga. The plot of land located at the intersection of Malopolska and Matejki streets was filled with a sculpted white block of extremely economical means of expression. It seems that it is a cut block of ice. The whole structure gives the impression of a temporary experiment as if a raw model was set on the layout of the city temporarily, to check the relation and context.

Only a deeper analysis leads us to find clear and very purposeful connections. The frayed roof corresponds to the historic buildings of the area, is a tribute to the typical post-German architecture of the city. Undoubtedly, there is also a strong reference to the function of the object. Multiplication, movement, and dynamics of the body reflect the music that resounds inside.

No wonder that the object aroused numerous controversies among the residents of Szczecin. Many accused it of looking like a "corrugated metal barrack." Although, at first sight, it may seem that it was made of this material, they could not be more wrong. The facade of the object is semi-transparent, thanks to which it can be illuminated in different colors, depending on the occasion.

Although not everyone will be fond of this building, it will surely write itself down in the pages of history as an icon of Polish architecture. It is not difficult to notice that people need to mature into some solutions in space, get used to them in order to appreciate them, and this building certainly does not let itself be forgotten. It attracts the viewer's eyesight with magnetizing power and makes them reflect. It acts with such force that one can also say that it "shouts." In this case, however, it happens in such a tone that it is not a voice opposing the tissue in which it is placed, but it is connected with it.

Without a doubt, the truth about architecture is also defined by the use of appropriate materials. The properties of a material determine the sense of the matter. Everything that

is artificial/pretended is a lie. The combination of the material and the solid in the creative process gives the idea of formal final character, and effective synthesis of the matter is responsible for the identification of the object. It is becoming common to believe that concrete has been transformed into a synonym of aesthetic transformations in contemporary architecture. Concrete, unlike stone, does not have a "permanent" form; it is therefore completely united with the structure it defines. It has the privilege of forming the idea it expresses.

> You must know the nature of concrete, what it really wants to be. Concrete wants to be granite, but it will never fully become it. The reinforcing bars play the role of a secret creator which makes this so-called cast stone appear to be a wonderful product of the human mind […] What concrete wants to be: the product of the human mind.[6]

The lack of a permanent definition of the matter of concrete is therefore its greatest advantage.

Therefore, the above arguments allow us to conclude that there is no indication that concrete could be considered as a manifestation of falsehood in the object it represents. The quintessence of the work of truth in the architecture, of which concrete has become the carrier, is the monastery of Sainte-Marie de la Tourette by Le Corbusier. The sincerity and simplicity of the tools express the deepest sense of form. "Only the truth is beautiful. In architecture, truth is the result of a calculation made to satisfy a necessity with the materials provided"[7]. The plasticity of the expression of the structure is unquestionably exemplary for this object. The metaphysical dimension of the project is also clear – the lifting of the structure above the ground manifests the rejection of what is human, the form is a perfect reflection of its function.

Undoubtedly, the truth expressed in concrete can also be found in the architecture of the contemporary Master, Tadao Andoo. Through the most basic geometric forms, he realizes the highest level objects. His UNESCO Meditation Space in Paris is a perfect example. Although the scale of the object is small, the building seems monumental. The cylindrical form creates a feeling of infinity. As Dariusz Kozłowski stated, the architecture is built here using "sensual quality reinforced concrete structures."[8] The walls of this building are devoid of decoration and detail. This role in this case is played by emptiness. Additional realism is revealed by the lines created by dividing the formwork, as well as by the assembly traces. Nothing in this project is pretended.

The modern world, which is in a constant rush, makes it necessary for people to choose between good and evil. It is also incredibly tangible for the architectural profession. The role it plays in society, although often underestimated, is nevertheless extremely important. Significant responsibility comes with this profession because it is inseparable from the strong influence it has on human life. Due to the fact that architecture is also art, the emphasis must be placed not only on functionality but also on the element of beauty. Service to the user should therefore be supported not only by good spatial planning but also by the selection of appropriate and balanced means of expression and proportions. Undoubtedly, it can be concluded that only courage in action and not giving in to the temptation of a strongly commercialized world are the guarantors allowing finding the truth in creating architectural works.

[6] R. McCatrer, *Louis Kahn and Nature of Concrete*, Concrete International, 2009, vol. 31, no. 12, pp. 26–33.
[7] N. Pevsner, *Pionierzy współczesności*, Wydawnictwa Artystyczne i Filmowe, Warszawa 1978, p. 180.
[8] D. Kozłowski, *O naturze betonu – czyli idee, metafory i abstrakcje* [in:] D. Kozłowski (ed.), *Architektura betonowa*, Polski Cement, Kraków 2001, p. 11.

Ill. 1.   By the Way House, Central Poland, source: https://sztuka-architektury.pl/article/11469/dom
-po-drodze-nowa-realizacja-architektoniczna-roberta-koniecznego (access: 7.9.2020)

Ill. 2.   By the Way House, Central Poland, source: https://sztuka-architektury.pl/article/11469/dom-po
-drodze-nowa-realizacja-architektoniczna-roberta-koniecznego (access: 7.9.2020)

Ill. 3.   Bohermore House, Graiguenamanagh, Ireland, source: https://www.archdaily.com/112442/
house-in-bohermore-boyd-cody-architects/5007734028ba0d4148002470-house-in-bohermo
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com/pressland-cms/cache/__original__/rz/6988488-bohermore-house-boyd-cody-architects.
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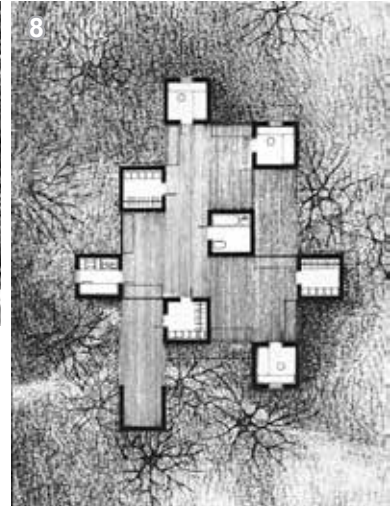
Ill. 5.   Philharmonic Hall, Szczecin, Poland, source: https://archello.com/story/45700/attachments/photos-videos/1 (access: 7.9.2020)

Ill. 6.   Philharmonic Hall, Szczecin, Poland, source: https://archello.com/story/45700/attachments/photos-videos/7 (access: 7.9.2020)

Ill. 7.   Jan Szpakowicz House in Zalesie Dolne, Poland, source: https://przekroj.pl/public/upload/articles/hero/5d778e7522723.jpg?1568116424 (access: 7.9.2020)

Ill. 8.   Jan Szpakowicz House in Zalesie Dolne, Poland, source: https://przekroj.pl/public/upload/articles/media/medium/5d778e7606bad.jpg?1568116342 (access: 7.9.2020)

Ill. 9.   Sainte-Marie de la Tourette, Éveux, France, source: https://images.adsttc.com/media/image-s/56dd/cef6/e58e/ceaa/4a00/0001/slideshow/fschapo_tourette_006.jpg?1457376989 (access: 7.9.2020)

Ill. 10. Sainte-Marie de la Tourette, Éveux, France, source: https://images.adsttc.com/media/image-s/56dd/c734/e58e/ce07/2400/0031/slideshow/fschapo_tourette_001.jpg?1457375001 (access: 7.9.2020)

Ill. 11. UNESCO Meditation Space, Paris, France, source: https://static.dezeen.com/uploads/2020/04/tadao-ando-meditation-space-simone-bossi_dezeen_2364_col_13.jpg (access: 7.9.2020)

Ill. 12. UNESCO Meditation Space, Paris, France, source: http://architectuul-production.com.s3-eu-central-1.amazonaws.com/c9/2c82de4c394d37a13b55147085be12/520cd3b2–9a88–4305-b-47c-49716d7b5f76_original.jpg (access: 7.9.2020)

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[6]   *Pejzaż nie byle jaki* [in:] Sztuka architektury, https://sztuka-architektury.pl/article/4468/pejzaz-nie-byle-jaki (access: 6.9.20).

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LANDSCAPE OF INCREASING FALSEHOOD IN CONTEMPORARY TOURISM ARCHITECTURE OF MIELNO

KRAJOBRAZ NARASTAJĄCEGO FAŁSZU WE WSPÓŁCZESNEJ ARCHITEKTURZE TURYSTYCZNEJ MIELNA

Abstract

The civilization and cultural changes started in the mid-nineteenth century led to the appearance and subsequent accumulation of falsehood in the architecture of towns located on the Baltic coast. Fishing settlements have become spas and resorts, as a result of an accelerated process, during which the original features of local architecture were supplanted, first by borrowed and then by functionally-accidental forms. In the growing spatial chaos created by advertisements and ephemeral, seasonal buildings and objects not adapted to the broadly understood context, it is increasingly difficult to find true architecture, i.e. one that results from the complex conditions of the cultural landscape of the seaside resort. This search is even more difficult due to the penetration of real forms, such as the original development of fishing settlements, with nineteenth-century borrowings from Swiss architecture and contemporary falsehood visible in the non-reflective repetitions of global architecture.

Keywords: architecture of seaside resorts, false in architecture, protection of the cultural landscape, Central Pomerania

Streszczenie

Rozpoczęte w połowie XIX w. zmiany cywilizacyjne i kulturowe doprowadziły do pojawienia się, a następnie nawarstwiania zjawiska fałszu w architekturze miejscowości położonych na wybrzeżu Bałtyku. Osady rybackie stały się uzdrowiskami i kurortami w wyniku przyspieszonego procesu, podczas którego pierwotne cechy lokalnej architektury zostały wyparte, najpierw przez zapożyczenia, a następnie przez funkcjonalno-przypadkowe formy. W narastającym chaosie przestrzennym, tworzonym przez reklamy i efemeryczne sezonowe budynki oraz obiekty niedostosowane do szeroko rozumianego kontekstu, coraz trudniejsze jest znalezienie architektury prawdziwej, tj. takiej, która wynika ze złożonych uwarunkowań krajobrazu kulturowego kurortu nadmorskiego. Poszukiwanie to jest tym bardziej utrudnione przez przenikanie się form prawdziwych, takich jak pierwotna zabudowa osad rybackich, z XIX-wiecznymi zapożyczeniami z architektury szwajcarskiej, i współczesnego fałszu widocznego w bezrefleksyjnych powtórzeniach architektury globalnej.

Słowa kluczowe: architektura kurortów nadmorskich, fałsz w architekturze, ochrona krajobrazu kulturowego, Pomorze Środkowe

1. INTRODUCTION

Seaside recreation is nowadays the most popular way of spending holidays in Poland.[1] The Baltic resorts in the summer season are able to receive tens of thousands of tourists, who during their stay temporarily increase the population density of selected cities even several times. Hand in hand with a high tourism load factor[2] is the need to create the necessary infrastructure that is able to provide accommodation for all visitors. The current Baltic landscape has been formed as a result of long-term transformations caused by human activity: both within the natural environment and architecture. The changes in the structure of coastal towns that have appeared since the first half of the 19th century have often manifested themselves in a clear blurring of the historical identity of the resort space. This phenomenon can be described as a growing falsehood in architecture, resulting in the irretrievable loss of true architecture, i.e. one that results from the complex conditions of the cultural landscape of the place. The article aims to examine the above subject based on the analysis of the tourist architecture of Mielno, which is an example of a historically formed seaside resort in Central Pomerania. The text is divided into two main parts: the first introduces the historical process of formation of the cultural landscape of the village, starting from outlining the features of the original regional architecture to the transformations of the 19th and 20th centuries; while the second part presents an empirical analysis of the contemporary spatial situation. The purpose of the author's research is to define what is the *truth* in the architecture of the place, as well as what will be referred to as sources of increasing *falsehood*.

2. THE HISTORICAL PROCESS OF FORMING CULTURAL LANDSCAPE OF MIELNO. AN ATTEMPT TO DEFINE TRUTH IN ARCHITECTURE OF THE PLACE

2.1 ARCHITECTURE OF PRIMAL FISHING SETTLEMENTS

The genesis of the architecture of the coastal belt, covering today's areas of Central Pomerania, is directly related to the development of fishing settlements. Small Slavic villages, such as Mielno, Unieście, Chłopy, Sarbinowo, Czajcze and Łazy, scattered along the coast, functioned thanks to agriculture and fish trade. The impact of various cultural influences in the region and restrictions resulting from communication conditions allowed the development of autonomous ethnographic units, called *cultural islands*.[3] They were distinguished by specific habits of residents and original forms of vernacular development. All of the mentioned fishing

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[1] M. Dudrywika, K. Duda-Gromada, *Wpływ turystyki na rozwój przestrzenny miejscowości nadmorskich, wybrane aspekty*, Turyzm, 2014, no. 24, p. 67.

[2] Based on GUS data determining the number of overnight stays granted to tourists in the first half of 2019 in individual voivodships, *Baza noclegowa według stanu w dniu 31 lipca 2019 r. i jej wykorzystanie w I półroczu 2019 r.*, www.stat.gov.pl (access: 29.4.2020).

[3] An example of a developed cultural island in the Central Pomerania region is the Jamno culture. Numerous studies conducted on it were collected as part of the exhibition entitled *Cultural Island* in the open-air museum called Zagroda Jamneńska, source: *Wyspa kulturowa. Wieś Jamno pod Koszalinem* [in:] *Muzeum w Koszalinie*, http://muzeum.koszalin.pl/?q=node/19 (access: 24.4.2020).

settlements, with the exception of the now-defunct village of Czajcze, were the germ for the currently known seaside resorts.

The first mention of the town of *Mëllen* (now Mielno) appeared in 1266 in a document granting municipal rights to Koszalin.[4] The architecture of the wooden huts of a typical peasant-fisherman village depended on locally available materials and existing climate conditions (Ill. 1). Thatched roofs were mostly made of reeds or straw. The half-timbered walls were built of wood and clay, and later also of bricks. The foundations of the buildings were platforms made of surrounding boulders. At that time, these buildings had to respond primarily to the basic needs of their users – they mainly provided residential functions.

The regional architecture of Central Pomeranian fishing settlements is recognized as *true* for the studied region, i.e. it was created as a result of a long tradition resulting from local environmental and anthropological conditions. The original forms of buildings, built from local materials and using local construction techniques, will be the basic reference point for assessing subsequent transformations.

2.2 19TH-CENTURY TRANSFORMATIONS OF FISHING SETTLEMENTS INTO SEA RESORTS, BORROWING FORMS OF WESTERN ARCHITECTURE

In the first half of the 19th century, due to the popularization of tourism in Europe, Pomeranian villages began to gradually transform into health resorts. Advances in science have discovered the healing properties of sea baths. It was fashionable to relax at the sea, although at first this activity was reserved only for the elite, as an indicator of social status. It did not remain indifferent to the architecture of villages such as Mielno. Sudden spatial development of towns started, in which various types of new tourist facilities began to be built. To the east of the old part of Mielno appeared guesthouses and hotels as well as prestigious villa facilities that were located at green avenues (Ill. 2). The forms of the buildings were taken directly from Western models of spa architecture. The borrowed Swiss-style originated from Alpine resorts and at the end of the 19th century it became a dominant canon also for seaside summer architecture. It was characterized by steep roofs with elongated eaves, as well as richly carved geometric and plant details in wood. Numerous balconies and terraces were supposed to allow taking healing sunbaths, as well as to shorten the distance between man and nature.

This period of changes can be described as the first significant accumulation of falsehood in Mielno's architecture. The Swiss-style did not arise from the tradition and culture of the region of former Pomerania but was artificially applied by the trends of the time. Without a doubt, Mielno's hotels and pensions from the turn of the 19th and 20th centuries create an interesting and valuable structure of the village. At the same time, the fact is that these objects have no real reference to the environment and climate in which they found themselves. Roofs with a large slope and strongly protruding eaves are characteristic for traditional Alpine towns, as are wooden decorations and details. A kind of formal falsehood meant that the original architecture of fishing settlements was already partly supplanted and replaced by new tissue. Currently, more than a century after the construction of the indicated facilities, it should be stated that their presence significantly shaped the image of the Baltic

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[4] *Zarys historyczny,* Mielno 2017, https://www.mielno.pl/o-gminie/zarys-historyczny (access: 12.5.2020).

seaside resorts. The stylistic mix of rural and spa facilities, which in retrospect can be seen as an added value to the cultural landscape of the place. *The True* architecture of rural farms coexisted then alongside new buildings dedicated to the function of seaside recreation. In this respect, spatial transformations introduced in subsequent years seem to be much more fraught with their effects.

2.3 DEVELOPMENT OF A SEA REST
IN THE FIRST HALF OF THE 20TH CENTURY

The beginning of the 20th century was a time of dynamic tourist development for Mielno. The growing inflow of tourists in the season caused a steady decrease in the number of prosperous farms, which was associated with their gradual transformation into resort facilities. The direct railway line opened in 1905 between Mielno and Koszalin popularized the accessibility of coastal areas to a larger number of inhabitants. In 1913, an electric "streetcar to the beach" was opened, which operated until 1938. Thousands of tourists reached the beaches each day and used existing beds. The 1920s and 1930s were the times of the largest increase in the inflow of vacationers, and thus the construction of even more tourist structures. It was not until World War I and II that significantly slowed down the further spatial development of the resort.[5] Military operations in Pomerania limited further investments up to the 1950s.

2.4 POST-WAR TOURISM ARCHITECTURE

The post-war period, associated with changes in the political system of Poland, is primarily a new direction for the development of coastal towns. Since the late 1950s, the tourist and spa movement in Pomerania has resumed – initially mainly based on existing, former German guesthouses and hotels, and in later years also by modern tourist architecture facilities at the time. Recreation centers, hotels, guesthouses and holiday home complexes designed in the 1970s were aimed at significantly increasing the accommodation base to provide space for visitors associated with the *Employee Holiday* Fund.[6] The architecture of the objects constructed until 1989 was characterized by the simplicity of form and emphasis on functionalism of spatial solutions (Ill. 3). The buildings erected clearly referred to the modernist style and architecture of the Polish People's Republic. In addition to investments with a standard hotel function, construction of larger service facilities and typical of the era housing estates began. The prefabricated blocks of flats were located among historic villa buildings and country houses, supplementing the available plots at the main avenues and walking routes (Ill. 4). It was also associated with the east-oriented development of Mielno and a significant increase in building density. The character of the town changed irretrievably then and with it the relationship of architecture with the natural landscape. The tourist profile of the village has become much more massive, which directly weakened its character.

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[5] K. Rypniewska, *Mielno – kąpielisko nad Bałtykiem, rys historyczny*, note from the collections of the Museum in Koszalin.
[6] K. Bizio, *Architektura obiektów rekreacyjnego zamieszkiwania pasa nadmorskiego Pomorza Zachodniego na przełomie XX i XXI w. Urbanizacja i komercjalizacja przestrzeni oraz ich wpływ na środowisko kulturowe i naturalne*, Środowisko Mieszkaniowe, 2018, no. 24, p. 154.

The newly designed buildings of Mielno were much less in tune with the natural and cultural landscape of the coastal belt, especially in relation to thatched regional half-timbered architecture. The objects inspired by the international style did not explicitly refer to the existing character of the historically formed seaside resort – neither in terms of materials, nor in terms of shaping the architectural form. Modern facilities mostly had flat roofs, and their walls were covered with plaster or exposed prefabricated elements, which in no way referred to the Pomeranian regional architecture or to the borrowed Swiss style. Buildings began to clearly dominate in the Mielno's space. As a result of the progressive devaluation of the traditional settlement buildings from before the 19th century, the *true* tissue of the buildings was almost completely supplanted by subsequent development stages of the seaside resort. The last manor farms survived only in the oldest district of Mielno, called the Church Estate. The complex political and economic situation of the Polish People's Republic significantly contributed to this state of affairs. There was a second stratification of falsehood in Mielno's tourist architecture, which had a decisive impact on weakening the valuesof the cultural landscape. Lack of proper protection of the historic parts of the resort caused irreversible loss of many valuable objects that testify to the traditions and culture of past eras. At that time, the special heritage contained in simple fishing huts and farmsteads was not appreciated yet.

3. INCREASING FALSEHOOD IN CONTEMPORARY TOURISM ARCHITECTURE OF MIELNO

3.1 DIRECTION OF SPATIAL CHANGES AFTER 1989

After 1989, the ownership structure of existing boarding houses and Mielno investment areas changed. As a result of the opening of the free market economy, there was mass privatization of holiday and tourist centers. The number of state-owned accommodation facilities decreased gradually. Inhabitants of the region and local companies have become new investors. Initially, their development was mainly based on the transformation of existing residential buildings into guesthouses and on the construction of small accommodation facilities. Their functionally-random architectural forms were very often a manifestation of the creative freedom of architects. New buildings significantly stood out from the surroundings, so again it is difficult to talk about skillful entry into the landscape and cultural context (Ill. 5). Coming out of the closed stylistic frames of the Polish People's Republic architecture opened completely new perspectives in design, giving much more freedom. Aggressive color solutions and the complicated geometry of building forms are a testament to the unbridled fantasy of designers of the late 20th century in Poland.

3.2 CONTEMPORARY HISTORIZING ARCHITECTURE

Against the background of many objects of the indicated type, there were also newly designed buildings that tried to relate better to the history of the village, and in particular to its nineteenth-century curative buildings. Historicizing architecture imitates the half-timbered wall and the proportions of details, turrets and soaring roof finials (Ill. 6). It should be noted that the buildings in question were already erected with the help of modern building techniques.

This brought the risk of dishonest expression of form. An example of this situation is the facades of a modern building located on the promenade (Ill. 7). The walls of the building were covered with wooden cladding imitating a half-timbered structure. As a result of the aging process of the building, the destructive elements of the building's skin have delaminated, showing the falseness of the way of creating the architectural form. The discussed situation shows that an attempt to reconstruct the historical character of the village, in addition to the positive aspects of preserving the identity of the place, may at the same time expose its space to further symptoms of visible falsehood in architecture.

3.3 INTENTIONAL DEVASTATION OF HISTORICAL TISSUE OF OLD MIELNO

The newest times bring also a problem of intentional devastation of the historic structures of the region. The historic residential buildings of the Old Mielno district have suffered considerable losses in recent years. It happened, among others in connection with recorded fires of valuable architectural objects. At the beginning of 2013, one of the most beautiful post-German villas located at 1st May St. burned down.[7] The abandoned and neglected holiday house Jantar, which has been included in the register of monuments since 1983, stood out in the landscape of Mielno by decorative wooden details and a soaring tower (Ill. 8).[8] Less than three years later another historic guest house located on the same street burned down. The fire caused significant losses, affecting the building structure, which means that today it is only suitable for demolition.[9] In the vicinity, there was the Millennium villa, which was demolished due to its poor technical condition. Earlier, an important culture-forming public space, which was the Curative Park, was closed (Ill. 9). The concert shell located in it once gathered resort guests around common musical events. Currently, the area of the historic park is only a private part of the property, belonging to the Floryn cafe. As a result, the overall availability of this space has clearly decreased, and the characteristic concert shell has fallen into ruin.

What has happened in recent years within the most representative street of Old Mielno is the evidence of the lack of sufficient protection of the cultural landscape of the resort. The way valuable monuments are eliminated should be particularly alarming for local authorities. Destructive fires and demolitions could be a manifestation of practices leading to the disposal of buildings requiring conservation arrangements.

3.4 COMMERCIALIZATION OF THE RESORT SPACE

After 1989, new threats emerged in Mielno to reduce the quality of existing tourist architecture. When assessing the quality of the space of seaside resorts, one should pay attention to the growing flood of aggressive advertisements and signs (Ill. 10). The advertisements are accompanied by ephemeral commercial and service facilities located along pedestrian routes (Ill. 11). The ineffective spatial strategy of local authorities, combined with the poorly

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[7] K. Szpakiewicz, *Pożar zabytkowej willi w Mielnie*, Gazetka Mieleńska, 2013, no. 1, p. 10.

[8] Based on the data from monument card No. 1165, materials made available for research by the Provincial Office for the Protection of Monuments in Szczecin, the delegation in Koszalin.

[9] I. Domurat, *Przedwojenne wille znikają z Mielna*, Głos Koszaliński, 2016, no. 7, https://gk24.pl/przedwojenne-wille-znikaja-z-mielna/ar/10436632 (access: 5.6.2020).

developed aesthetic awareness of the inhabitants, are the main reasons for the occurrence of current foci of falsehood in the landscape of the place.[10]

3.5 NEW DEVELOPMENT MOVEMENT, SPATIAL AND ENVIRONMENTAL ISSUES

Due to the intensification of tourism at the beginning of the 21st century, larger hotels and guesthouses were built in Mielno. More restaurants opened, as well large chain stores. In addition to the positive economic aspects resulting from increased tourism, which clearly fueled the coastal economy, it is also worth paying attention to the dynamics of spatial trans-formations causing severe disturbances in the tissue of the village. Smaller entrepreneurs began to develop intensively, which allowed them to continue investing – this time in much larger tourist facilities. After 2010, large development companies became interested in the coastal belt of Mielno, whose activities led to an increase in the scale of planned investments and the incorporation of new development areas. Attractive areas along the main seaside promenade began to be built in turn by apartment buildings of an unprecedented cubic capac-ity (Ill. 12). Their forms can be described as universal, drawing on the trends of global hotel architecture. Again, it is difficult to speak of a reference to the tradition and context of the historical architecture of Mielno. Modern tourism architecture in its form is more reminis-cent of the extensive resorts of the French Riviera or the buildings of the Mexican Acapulco. The similarity observed is undoubtedly the result of the intensive globalization of tourism.

The latest development movement should be described as strongly affecting the protected natural landscape of the Baltic Coast. The large size of buildings situated in compact clusters causes the escalation of problems related to the loss of valuable biological areas, creating a natural ecosystem for the habitats of rare animal and plant species. The commune of Mielno is also located in the protected area of the Koszalin Coastal Belt, which is a significant con-traindication to situating objects in the immediate vicinity of the dunes. Despite this, it seems that the future of the village is associated primarily with increasingly tight buildings on the shoreline, which will result in the creation of the so-called *seaside* wall.[11]

In addition, other tourist infrastructure facilities are being created within the beach to make the seaside rest more attractive. Among them is the construction of a new fragment of the *Friendship Promenade* (Ill. 13). The type of raised platform stretches in a straight line over a distance of 350 m. The name of the investment implemented from European Union funds suggests a place for joint walks and meetings. The problem lies, however, in the fact that the object does not have a single bench or a clear bay that could encourage to stop and make new relations. In practice, the object defines a monotonous walking axis, which sig-nificantly underestimates the values on the theoretical *impressions chart*.[12] One standing at one end of the Promenade, get the impression of its seemingly infinite length.

In recent years, the Norwegian investor Firmus Group has presented the largest devel-opment project to date for Central Pomerania. The award-winning urban concept of *Dune*

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[10] The provisions in force of *Studium uwarunkowań i kierunków zagospodarowania przestrzennego gminy Mielno* from 27.4.2010 are not effective, regarding restrictions on the positioning of advertisements and advertising signs in designated conservation zones. The lack of an effective Landscape Act results in a constantly deteriorating spatial situation.

[11] K. Bizio, *op. cit.*, p. 151.

[12] K. Wejchert, *Elementy kompozycji urbanistycznej*, Arkady, Warszawa 1984, pp. 171–184.

City provides for the construction of a new tourist center that would combine recreational and tourist functions with the conference and congress center (Ill. 14). The whole gigantic structure would occupy an area of about 38 ha (from the border of Mielno with Unieście, to the center of the Jamno Spit). Until now, the investment has been implemented only in a small part – mainly due to the fact that the project has not obtained all the necessary formal and legal arrangements. In this case, the Regional Director of the Environment in Szczecin refused to agree on the project due to the anticipated ecological threat scenario.[13]

According to the author, the implementation of such a large investment would be associated with a complete disruption of the existing cultural landscape of the region, which is why the decision to suspend the implementation of the rest of the concept seems absolutely right. The structure known as "Polish Dubai" would undoubtedly be detached from the scale and broadly understood the context of the place. It is also difficult to even imagine the irreversible consequences that would be taken up by the natural environment. At this point the question arises: is it ever worth risking the loss of the coastal landscape in order to obtain the planned benefits for economic development?

4. CONCLUSION

As a result of the described civilization processes, the true architecture of the coast has evolved under the influence of the analyzed set of spatial factors. For the most part, they can be described as elements leading to the blurring of the valuable cultural landscape of Mielno, which grew out of the tradition of Pomeranian villages. Through the nineteenth-century transformations, primal fishing settlements have become resorts and spas, thus becoming part of the industrial and cultural revolution. This caused that the features of the original local architecture were gradually supplanted by borrowings modeled on the European curative architecture and the subsequent influences of the architecture of the Polish People's Republic. Nowadays, the spreading repetitions of global architecture are characterized by a multiplication of functionally-random forms that cause an escalation of commonly noticeable symptoms of disharmony and deepening spatial disorder. The biggest problems of modern times include the uncontrolled flood of kitschy forms and advertisements, the loss of coherence of public spaces, as well as the intensifying aggressive development movement, which negatively affects the natural environment of the coast. The described sequence of historical transformations showed that due to subsequent layers of falsehood in Mielno's architecture, the character of traditional buildings was almost completely lost. In just two centuries, the original architecture, which grew out of the natural conditions of the coast and the traditions of Central Pomerania, was forgotten. Today, few open-air museums are refuges for dying culture, which allow for real protection of the heritage of coastal areas (Ill. 15).

Currently, the only chance to reverse negative trends in Mielno's tourist architecture seems to be to publicize the most important problems of the disappearing identity of the resort. Improvement of the difficult situation will be possible only thanks to the effective promotion of the region's history, as well as increasing the aesthetic awareness of the society. If the wave of growing falsehood in Mielno's architecture is not stopped, the priceless heritage of the place with the undiscovered potential for the development of sustainable tourism will be lost.

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[13] *"Polski Dubaj" nie może ruszyć z budową. Cały czas brak jednej zgody* [in:] Business Insider, https://businessinsider.com.pl/wiadomosci/problem-z-budowa-miasteczka-dune-city/kmvby3n (access: 24.5.2020).

Ill. 1.   Beautiful thatch fishing huts, Czajcze 1930, photo: J. Sterczyński
Ill. 2.   Jantar Pension from the turn of the 19th and 20th centuries on 1st May St., Mielno 1984, photo: F.J. Lechowicz
Ill. 3.   Holiday center of the Technical Agricultural Service Company "Mechanizator", Mielno 1985, photo: L. Surowiec
Ill. 4.   Holiday house "Albatros", the main walking route on Kościuszko St., author's photo
Ill. 5.   Postmodern buildings on Kościuszki St. from the 1990s, author's photo
Ill. 6.   Historizing frontage on Nabrzeżna St., author's photo
Ill. 7.   Detail of a modern building located on the Seaside Promenade, visible stratification of the historic facade, author's photo
Ill. 8.   Willa Jantar during a fire on January 1, 2013, photo: K. Skrzypczyk

Ill. 9.   Concert in the Curative Park on an old postcard, Mielno 1931, source: https://polska-org.pl/7727 438,foto.html, date of access: 10.06.2020

Ill. 10   Contemporary buildings in Mielno on Kościuszki St., restaurant advertising signs significantly obstruct the visibility of the building's facade, author's photo

Ill. 11.   Ephemeral forms of objects located along main pedestrian routes intensify the sense of spatial disorder, author's photo

Ill. 12.   Dune apartment buildings on the Seaside Promenade, author's photo

Ill. 13.   Friendship Promenade in Mielno, the effect of the infinity of the view axis, author's photo

Ill. 14.   Dune City – aerial visualization, Studio Architektoniczne Sietnicki, source: http://sasstudio. pl/gallery/dune-city/, date of access: 12.06.2020

Ill. 15.   Open-air museum of Jamno culture in the former village of Jamno, author's photo

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(UN)REAL
VIRTUAL ARCHITECTURE

(NIE)REALNA
ARCHITEKTURA WIRTUALNA

Abstract

Virtual architecture – idea, concept, immaterial illusion of reality created with the help of digital technologies, without clearly defining its character – true or false? The complex issue and its resolution depend on so many factors and interpretations that it is difficult to find a clear position or uniform view on this matter. The article attempts to determine the "place" for a specific type of architecture that is implemented in virtual reality. The authors consider its truthfulness, taking into account virtual, augmented and mixed reality. The assessment is made, inter alia, in the context of the assumption that today's digital design is more "real" than traditional design, and that the possibilities of user interaction with virtual space are constantly evolving, striving for full delusion of the senses.

Keywords: virtual architecture, truth, VR, the senses

Streszczenie

Architektura wirtualna – idea, koncepcja, niematerialna iluzja rzeczywistości wykreowana za pomocą cyfrowych technologii, bez jednoznacznego określenia jej charakteru – prawdziwa czy fałszywa? Złożona kwestia, a jej rozstrzygnięcie zależne od tak wielu czynników i sposobów interpretacji, że trudno o jednoznaczne stanowisko lub jednolity pogląd w tej sprawie. W artykule podjęto próbę określenia „miejsca" dla specyficznego rodzaju architektury, która realizowana jest w rzeczywistości wirtualnej. Autorzy rozważają jej prawdziwość, biorąc pod uwagę wirtualną, rozszerzoną i mieszaną rzeczywistość. Ocena dokonywana jest m.in. w kontekście założenia, że dzisiejsze projektowanie cyfrowe jest bardziej „rzeczywiste" niż projektowanie tradycyjne i że stale rozwijają się możliwości interakcji użytkownika z przestrzenią wirtualną, dążąc do pełnego oszukania zmysłów.

Słowa kluczowe: architektura wirtualna, prawda, VR, zmysły

1. INTRODUCTION

> I do not remember the times of my early childhood, what the door of the rural home of my grandfather looked like, however, I remember its weight and resistance, and its greying surface, worn out through the decades, and I especially well remember the smell of the house interior which assaulted me as an invisible wall placed immediately behind the door.[1]

That is how Juhani Pallasmaa, in his book *Eyes of the Skin*, recalls the impression that his grandfather's country house made on him during his childhood. Despite the privileged role of sight in relation to the other senses,[2] the visual image was lost in his memory as the years passed. A decisive role in recalling this memory was played by touch and smell, which made past sensations fuller and easier to recall. A meeting with architecture became a multi-sensual experience of the relation between subject and place.

Architecture is an integral part of our surroundings, an inseparable element of place, our reality, past, and future. It is our daily life: the church tower on the horizon, the dense urban buildings, and the scattered rural farm buildings. It is a treehouse, a bridge over the river, a stream crossing, and also a fence that separates a garden from a road. Architecture surrounds us, as an element of space, it affects all senses of the recipient. The diversity and multitude of sensory stimuli coming from the surrounding environment, allows us to better remember and construct our mental model, which causes our experiences to become more cohesive and significant.[3] We are directly connected with our surroundings which influence and shape us.

During the last several decades, digital technology has entered our reality to such a degree that currently it is difficult to find a domain of human life which remains outside the influence of the popularization and development of information technologies. The development of technological thought brought about changes in the media, as well as in art, science, philosophy, technology, and also in architecture. Architects were supplied with powerful tools, which allowed them to simulate physical space to an unprecedented degree. We have gained the opportunity to immerse ourselves in virtual space as well as full control over the creation process and of that what is found in this space.

Therefore, the material, physical world, is not the only point of reference in our lives. The real world penetrates the virtual world and vice versa. This fascinating phenomenon is a process that requires observation and research. As the world becomes more and more complex, while the technologies which we use on a daily basis change our perception of reality, many questions, concerns, and doubts arise.

In analyzing selected literature consisting of magazine articles, academic essays, and books concerning architecture, its perception and experience, as well as the use of virtual

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[1] J. Pallasmaa, *Oczy skóry. Architektura i zmysły*, Instytut Architektury, Kraków 2012, p. 66.

[2] *Ibidem*, pp. 21–26.

[3] "Besides the role they play in thoughts about action, images of the environment serve to organize our perception, allow us to code, structure, and store visual and spatial information, as well as directly facilitate and regulate our reactions to things which we see. In allowing us to recognize, select, register and keep specific aspects of our unique personal experience in the world, these diagrams constitute a lasting reality, which we construct based on the phenomena of direct perception." D. Stea, *Architecture in the head: cognitive mapping* [in:] J.T. Lang, *Designing for Human Behavior: Architecture and the Behavioral Sciences*, Dowden, Hutchinson & Ross, Stroudsburg 1974.

reality in architecture, we strive to understand the amount of influence the evolution of virtual reality has had on architecture. What is real in times of post-reality, where the process of getting to know reality occurs along with the process of its creation and what is false? Does frequent and deep immersion into virtual space bring with it the threat of wrong perception of real world and thus the threat of truthfulness for real architecture? Is it a threat to the truthfulness of real architecture? What is virtual architecture and where is its "place"? Is virtual architecture real?

2. DEVELOPMENT

2.1 SPACE

We exist in a real, physical, tangible, and true space. It is the easiest to describe space in terms of what we see, since sight is a sense directed at its perception. However, we experience all of its aspects and get to know it better thanks to the synchronic cooperation of all senses.[4] Sight informs us what space looks like, however, we interact with it physically thanks to the remaining senses. Sight concentrated in front of us provides us with a stereoscopic image and information on the geometry of space, hearing informs us what is happening behind us and around us. Hearing is a great supplementation of sight. Places and objects which fill up this physical space possess smell and taste. When we interact directly with space, the sense with the greatest impact enters the fray – touch. It does not inform us of the space itself, but thanks to it we register its additional properties. We perceive temperature and material structure, density, and weight of objects which fill the space. Just as taste and smell, touch easily brings back memories and we experience it the most strongly. It plays a key role in interacting with space.[5] We touch door handles, rails, we move things, lean on them, sit, feel the wind, and temperature. When we walk, we feel the unevenness of the surface, even through the soles of our shoes. We experience space through all our senses, but without touch it seems to be missing something. In using this sense, we also put into action the process of shaping space. Regardless whether we are building a house, planting a tree, chiseling a sculpture out of a rock, or just drawing, we always use touch.

2.2 PERCEPTION

As a species, we have the need to modify and change our surroundings. The shape and form born out of an idea, art, and technology, defines space and gives it its functions. We fill this space with geometrical forms, bestowing significance upon them, in such a way as so they ensure safety and fulfill both our basic physiological and social needs, as well as those of a higher level (respect and recognition, self-fulfillment). Places and buildings created during the creative process are given properties that reflect the traits of our personality and our sensitiveness. They illustrate our understanding of space.

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[4] At this moment we are omitting the time of stimuli interpretation by various senses. A state that was assumed was one occurring in our consciousness which takes into account the synchronization which takes place in the brain.

[5] We are conscious of being affected by the illusion of the sense of sight. Subconsciously, what we touch, we deem as real and true.

Being in places shaped in such a way, we experience them, become familiar with them, and learn them. This experiencing is always accompanied by emotions.[6] Emotions consolidate our recollections and supplement those already existing in our memory. Memories build our personality and develop our sensitiveness. We are subject to positive feedback. We shape space creating places, while the places shape us.[7] The experiences we acquire allow us to shape better places. Due to multiple copying of the loop of this process, space that is available to us today is filled with architecture.

2.3 RELATIONS

An inseparable part of the physical space in which we live and operate is the architecture with which we have contact for the greater part of our life. And while the work of an architect is experienced in "the same degree by the eye, nose, skin, tongue, the skeleton, and muscles,"[8] spatial relations are experienced mostly with the aid of sight. Sight interprets not only the physical space. Sight is able to transport us to a dimension different than the physical one. Looking at a picture or a painting we participate, in a way only slightly different from the standard one, in the space depicted in this visual presentation. This is the virtual space. We see it, understand it, but we do not experience it in a physical way. A prototype of virtual space may not even exist, may not have a real counterpart, however, looking at a visual presentation we are under the impression of its reality and our presence (participation) in it. Access to virtual space is gained by a specific type of medium, it can be a drawing, photograph, or a visualization displayed on a screen. A set of images from our visual memory allows us to unambiguously interpret the space presented on an image. This space, in a way, remains an element of real space due to the medium, but in itself it does not physically exist. The virtual space of a given medium is shared by all the participants, while the medium is a window through which we are granted access to it. In times dominated by devices that send and generate images, we participate in this space more often than our consciousness would have us believe. We are connected with it by the presentation of space, which we see on the screen in the cinema, on a monitor or TV, and even on the smartphone, it can be an advertising banner or project visualization.[9]

2.4 ADDITIONAL SPACES

By imagining what is not present in a painting or photograph, adding those elements which are invisible and enhancing them by the experiences of our own memories, we enter the mental space. Similarly to virtual space, the mental one is a non-physical space.[10] As opposed

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[6] Stronger sensations (more powerful stimuli) are accompanied by stronger emotions.

[7] "Space created by man can enhance human emotions and human perception. […] People are more aware of who they are and how they should behave when they find themselves in surroundings designed by man, than if they are surrounded by nature in its original state." Yi-Fu Tuan, *Przestrzeń i miejsce*, Państwowy Instytut Wydawniczy, Warszawa 1987, p. 133.

[8] J. Pallasmaa, *op. cit.*, p. 51.

[9] The medium must be unambiguously interpreted and present an image of spatial arrangements. In such a window we see the natural environment along with architectural objects which fill up its space and the people who use them.

[10] O. Ettlinger, *In Search of Architecture in Virtual Space: An Introduction to The Virtual Space Theory*, South African Journal of Art History, 2007, no. 2, pp. 10–23, http://virtualspacetheory.com/public/Or-Ettlinger-In-Search-of-Architecture-in-Virtual-Space.pdf (access: 15.4.2020).

to virtual space, mental space is available solely to the subject. We use it to build all kinds of mental models and when we imagine what cannot be seen. In a mental space with the participation of stimuli from the environment and the knowledge we possess, we construct a model, which becomes the basis for further interpretations and the understanding of the perception of our surroundings. The mental model does not need to be identical with reality, and mental models concerning the same situation or the same environment in mental spaces of various persons differ from one another. They can even be very different since the construction of such a model depends on many factors including individual experience (previously acquired information), the method of information assimilation, sensitivity, and the subject's perceptiveness.

It is in mental space where creative processes commence, those that when visualized become a "window" of the virtual space. These processes can be inspired or released by stimuli from either the real or virtual space. These spaces result from each other. Each of them can be experienced with varied intensity, and it depends on our imagination and sensitivity, and also memory.

2.5 PROJECT

Architecture is fully experienced in physical space. As architects, until recently, we used[11] models and layouts[12] which were the real, physical, tangible reflection of the designed object. In order to facilitate this task, along with the layout we made sketches of what had previously come to our imagination.[13] Such activities allowed us to correct what we have imagined and detail subsequent stages of work, so as to eliminate all doubts concerning the completion of the object. A set (design) created in such a way represented something unreal, but possible to implement. A word which describes such a state – "which may exist (is theoretically) possible"[14] – is "virtual."

Today the word "virtual" is most often associated with digital technologies. Due to the development of technical infrastructure, it is often connected with various activities describing the remote performance of actions with the use of a computer or defining something which does not physically exist but has been visualized in some sort of way. It is also often connected with architecture. This connection is appropriate because virtual space, to a significant degree, is "built up" by architecture. We come in contact with virtual architecture

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[11] The past tense used, applies to the tendency of the young generation which is focused on taking advantage of digital methods of design. The authors of the article, despite working in a digital environment, still use traditional design methods, believing them to be a tool which helps in the development of spatial imagination and allows for the creation of a tactile bond with the model and definitely recommend such methods.

[12] A layout as a specific type of a model used most of all by architects to replicate the appearance and the arrangements of the designed object. The making of a model is used in many professions, mainly technical ones, however, in the times of the development of digital technologies, models describing phenomena and processes, as well as behaviors are used more and more often.

[13] Completing an image of this, generated (created) in our imagination vision required the proper manual skills, necessary to clearly visualize the object. Digital devices and software facilitate the completion of professional works for those with lesser manual ability which is replaced with knowledge regarding the use of digital tools.

[14] *Wirtualny* [in:] *Słownik wyrazów obcych PWN* [*Polish Scientific Publishers Dictionary of Foreign Terms*], Wydawnictwo Naukowe PWN, Warszawa 1995.

when we watch its visual presentation. This can be a visualization which is a realistic image completed by a calculating machine based on the construction of an advanced/complicated (containing numerous information and parameters) digital 3D model.[15] Visual architecture may also be depicted by a conceptual two-dimensional (2D) image. It is rather a vision, a sketch, a main objective and it does not have to completely correspond with the spatial construction of the object, however, it does have to fulfill the criterion of unambiguous interpretation. The possibilities of interacting with visual architecture depend on the way in which it was developed. A 2D image can be displayed or printed, however, it always remains flat. On the other hand, the 3D model can be viewed from all sides, also form the inside. Thanks to advanced lighting and material simulation, a 3D model can appear so realistic that it is difficult to differentiate between the real object and its image (the represented object looks like the real one).

2.6 ACCESS TOOLS

In order to fully experience the "three-dimensionality" of virtual space, we must use additional tools. One of those readily available tools is a smartphone or a tablet. A device acts as a kind of "filter" placed between the user and the observed space. Thanks to the camera "the filter" registers our surroundings,[16] calculates its own position and interposes the digitally generated image of a non-physical 3D object onto the image of our surroundings. This object can be a model of a designed building or a model of any object, also an animated figure. The model can be viewed from all sides by moving in real space or by moving the marker placed in it. Objects can be divided into individual sections by deciding which of these remain visible, in this way acquiring the ability to view the interior of the object or obtain information about its structure. Such a solution is known as augmented reality (AR). Ronald Azuma presents a definition which is a synthetic description of augmented reality. He defines AR as a system:
- which connects within itself the real world and virtual reality;
- is interactive in real-time;
- enables freedom of movement in three dimensions.

A similar solution but one which requires a more advanced filter is mixed reality – MR.

As opposed to AR, the filter is attached to the user's head. A device equipped with a set of sensors and cameras registers our surroundings and displays digitally generated objects on a semi-transparent glass. The registration of the position of the user's hand allows interaction with the generated object. In both of the above-mentioned cases, we are dealing with a connection between reality and virtual reality.

The third solution is virtual reality. In this case, the image may be recorded by a 360 camera, however, more often it is an entirely digitally generated environment. The development of techniques of rapid imaging allows us to obtain unprecedented reality – subsequent barriers, which until recently have been difficult to overcome, begin to disappear. It is possible

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[15] 3D – tree-dimensional. Three dimensions of such a digital model are virtual, its space is described based on visual interpretation of digital data stored in computer memory and displayed with the use of an appropriate device. The model can vary in time and be described as a 4D model (three dimensions of space, and time).

[16] Certain solutions require placing a "marker" within the field of view of the filter. The marker may be virtual, calculated based on the analysis of an image (space) in this field of view.

to generate an environment containing billions of surfaces while extending realistic lighting all the way to the horizon of the virtual world.[17]

The name virtual reality sounds like an oxymoron, containing a contradiction describing what is both real and unreal. However, in limiting the meaning of the word virtual to non-physical and staying true to the conviction that virtual may be real, we avoid such a paradox.

Obtaining additional information about our surroundings thanks to stimulating more of our senses, allows us to better experience non-physical, virtual space, to "immerse ourselves" in non-physical space. The degree of immersion depends on the set of devices used. Participation in virtual space may be passive, e.g. when watching a film, but we can also participate in a virtual space by interacting with it and changing it. Thanks to the development of digital technologies today, a fuller experience is possible. Currently, natural stimuli may be replaced with those created artificially. We obtain such an illusion by watching a screen that displays a stereoscopic image and putting on a set that generates surround sound. We put on special gloves which guarantee haptic sensations, while

our body is covered in a suit ensuring tactile sensations over most of its surface. Devices that generate air circulation and changes in temperature while also imitating smell and taste allow for the creation of an illusion of an environment different than that in which we currently find ourselves. Artificial stimulation of the senses is not identical to that which comes from real interactions. The first space with which a man deals, is the real one. As the original space, it is our point of reference when we come in contact with virtual space. However, this does not present a problem for the user. We do not always require an exact replication of the stimulus. In receiving "artificial" stimuli, we supplement them by our imagination recalling natural ones.[18] We do this especially when we want them to be real, when they suggest to us what we want to experience.

An element describing virtual reality is the so-called I^3 triangle. It consists of three elements: immersion, interaction, and imagination.[19] Depending on the set of access tools used, the contribution of individual components varies. A set of tools enabling participation in virtual reality is the basic criterion for distinguishing types of non-physical reality.

The border between individual realities is unclear. The basic criterion of differentiation is the set of tools used allowing for participation. We participate in mixed reality if the device can interpret space in front of itself as three-dimensional and uses this in generating virtual objects. In addition, interaction with objects can define in which reality we currently find

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[17] Epic Games revealed a fifth-generation Unreal Engine on May 13, 2020. The introduction of the engine is planned for 2021. The engine is equipped with technologies that facilitate the generation of views of complex 3D scenes in real time in 4K resolution. The engine has built-in modules: Nanite – the use of three-dimensional mesh of film quality with automatic LOD (Level of Detail), Lumen – eliminates the need to create a light map by calculating reflections and shadows dynamically, Niagara – for fluid and particle dynamics, Chaos – for physics.

[18] The use of virtual reality is based on the desire to feel it, we care about the fullest participation, we expect stimuli and we want to feel them.

[19] "By virtual reality, we mean a space created by the interaction of immersion as a feeling of belonging to an artificially created reality, interaction as a possibility for the user to create changes in this reality and his imagination allowing for sensations which are not perceived by sight." A. Bladowski: *Rozwój wirtualnej rzeczywistości jako narzędzia interpretacji przestrzeni*, Przestrzeń, Ekonomia, Społeczeństwo, 2018, no. 13/I, pp. 85–100, http://yadda.icm.edu.pl/yadda/element/bwmeta1.element.desklight-9af32b7d-8430–444f-a67f-1554ebc7411d (access: 15.4.2020).

ourselves. Reality is augmented if the interactions with the object (apart from those assumed by the object's creator) are not possible. When we create an object, when the object is "open" and we can modify it according to our own preferences, then we find ourselves in mixed reality.

The entirety of virtual worlds and their elements,[20] sensors, all the equipment and software necessary to participate in them and create them is called extended reality[21] – XR. It is made up of all the realities mentioned above and acts as the link between them and real reality (RR).

Complete immersion carries the risk of losing the point of reference. Such a situation was presented in the movie *Inception*. The film shows the possibility of entering into a dream, falling asleep in a dream, and entering another level of dreaming. Since the characters lack points of reference to reality, after several jumps it is very difficult to specify on which level they currently find themselves. The movie talks, among others, about getting lost in those levels. In such a situation, even the real level (truth) may be deemed as a dream (false). A mistake made in this case can have severe, including life-threatening, repercussions.

In connection with the above, we quote the question that Stanisław Lem asked many years ago:

> Is it possible – we may ask – to create artificial reality, which is similar to the natural one, but impossible to differentiate? The first topic – is creating worlds; the second – illusions. Yet, these are perfect illusions. I do not know if we may simply call them illusions. You must judge for yourself.[22]

2.7 VIRTUAL ARCHITECTURE

You are in an unknown house, you look around with interest, walking through subsequent rooms. The interior was designed with a sublime taste, while the prevailing atmosphere of harmony fills you with tranquility. You see enormous windows, through which delicate and soft light seeps in. One of them is open, you hear the sound of the sea, feel its scent, the wind gently brushes your face. Despite the heat outside, the stone floor provides pleasant coolness. You sit down on a comfortable sofa, and feeling the texture of the material under your fingers, you fall into a pleasant, velvety softness… tired, you close your eyes and reluctantly turn off the virtual reality set… it is time to come back to the real world.

We have reached the stage where the presented scenario becomes more and more possible to implement. The creation and development of virtual reality allowed us to immerse ourselves in and experience worlds and environments which we could never have imagined. The exorbitant pace of technological development began a new era. These changes concern every aspect of our life, including architecture, which splits into two, one that we have known until now and another which exists in another dimension – in virtual space. It is quite possible that today, in front of our very eyes, the architecture of the future is born.

In order to appropriately understand the possibilities and implications that the development of virtual reality brings into the world of architecture, summing up reflections up

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[20] Many elements used in every reality (e.g. 3D objects are used in each of them).
[21] XR – extended, and AR – augmented.
[22] S. Lem, *Summa technologiae*, Wydawnictwo Literackie, Kraków 2000, p. 242.

to this point, we must specify how we understand the main concepts which appear in this publication.

In the present article, we treat virtual reality as a tool which allows us to peek into virtual space, and also a tool for its creation. Virtual reality is a visual space, but not a physical one,[23] in which there is a possibility to experience stimuli with the aid of devices that stimulate them, while on the other hand, real space is the material environment which directly affects our senses.

The virtual world is a world of virtual space, today identified with "the world of art, film, music, computer games, research projects, thoughts, imaginations, implemented through visualizations"[24] and also the Internet and digitally generated environment, which is influenced by the person who is experiencing it.[25] The real world is a physical and material space.

The reality in which we function is comprised of both the real and virtual space. Technological development causing their smooth connection has led to the creation of a reality which is called postmodernism or post-reality,[26] in which these spaces penetrate each other, while the borders between them tend to disappear.

In recent years, the discussion on virtuality has also covered architecture. Or Ettlinger has developed a theory of virtual space which has "at its basis an interpretation of virtual space as a general space which we see with the aid of visualized images, as well as 'virtual', as a description of any given visible object found in this space."[27] Taking into account the fact, that architecture per its definition, is understood as the art of shaping space, it can be assumed that architecture created in virtual space is referred to as virtual architecture.

The users of virtual space make a choice "between the desire to immerse themselves as deeply as possible in an image (in an artificially generated world) and the desire to experiment, with the goal to try and check something, which can later be done in reality."[28] The division of virtual space into a kind of virtual "machine to inhabit" of the post-reality era, and into space which serves the purpose of checking and testing solutions which we would like to apply in the real world, essentially corresponds to the aims attributed to virtual architecture: "the simulation of physical architecture or functional spatial places."[29]

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[23] Or Ettlinger defines virtual space as space encompassing that which is created by any medium able to describe space outside of direct physical surroundings.

[24] A. Latawiec, *Rola symulacji w kreowaniu świata wirtualnego* [in:] A. Kiepasa, M. Sułkowska, M. Wołek (eds.), *Człowiek a światy wirtualne*, Wydawnictwo Uniwersytetu Śląskiego, Katowice 2009, p. 53.

[25] We can speak of artificial immersive environments, visible thanks to special sets (virtual reality), which allow for complete immersion in virtual space. The user who remains in this environment has a four-dimensional time and space continuum at his disposal and remains in constant interaction with it.

[26] Post-reality is known as the fourth wave of computer technologies which comes after the development of personal computers, the world wide web and mobile technologies. The development of technologies permits full immersion in a stream of stimuli, visual, tactile, auditory, and saporific, in such a way that it is difficult to separate the real world from the virtual one.

[27] O. Ettlinger, *op. cit.*

[28] T. Miczka, *Czysta iluzja i testowanie realności: dwie rzeczywistości wirtualne – dwa uczestnictwa* [in:] A. Kiepasa, M. Sułkowska, M. Wołek (eds.), *Człowiek a światy wirtualne*, Wydawnictwo Uniwersytetu Śląskiego, Katowice 2009, pp. 11–30.

[29] M. Maher, S. Simoff, N. Gu, H. Lau, *Designing Virtual Architecture*, 2000, https://www.researchgate.net/publication/2393916_Designing_Virtual_Architecture (access: 15.4.2020).

The above-mentioned theses correspond to the division which we implement in order to define the place of virtual architecture. We can point out two principal areas in which virtual architecture develops:

- virtual architecture perceived as an effect of the work of an architect, a form of a simulation of physical architecture connected with the designing workshop, and
- virtual architecture created as a result of the expansion of people into cyberspace, created to exist in a digital world.

Architectural simulations. Until recently the main attribute of architectural design which allowed for contact with the object or space, before their creation in real space, was drawings known as plans, perspective drawings depicting the object form, layouts implemented as a model in scale, and renderings, two-dimensional representations of three-dimensional objects generated by a computer. Along with the coming of virtual reality (designing with the use of virtual reality technology is the main focus of the present work) which to a greater and greater degree is able to cheat our senses, there are first signals that true sensations of space will be available prior to the construction, while architects will have the possibilities to design directly in the virtual space.

Using virtual reality as a tool for designing and placing a design in the virtual space is a new field of activities for architects. Although VR systems are based mainly on engines which are used for computer games, while applications for iterative designing are still being developed[30] and require specialist knowledge, the potential for their use as an interactive working space for architectural design is very promising indeed. Currently, we can see a broader and broader application of this technology in modeling, visualizing as well as the presentation of architectural designs. Thanks to VR, we have the opportunity of a photorealistic representation of ideas and rapid and multiple simulations of potential solutions. The exact representation of the final vision helps in the dialogue between people engaged in the creation of the project, but also in collaboration with clients, which can significantly decrease the number of corrections of the work being developed. The real estate industry has also noticed the potential of VR and currently uses new solutions in order to obtain clients.

Digital world. However, the role of virtual architecture cannot simply be reduced to being a stage in the designing process, its potential is used for research, educational, and popularization purposes. Digital reconstructions of important architectural works are studied by historians and conservation officers and also made available to sightseers through applications.[31]

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[30] An example of such an application is the Anywhere project, presented in June of 2015 in the main offices of Carl Zeiss Oberkochen, Germany, whose author is Constantinos Miltiadis. The goal of the Anywhere project is to transcend the borders of the "physical presence of man in space, by replacing kinesthesia, vision, and hearing with artificial sensory experiences in a fully interactive virtual environment. Blending aspects of both reality and virtuality, the project creates the first real presence in an augmented reality space." The virtual space with new properties of heterotrophy and heterochrony serves as a novel platform for architectural speculation. Virtual architecture, the content of these environments is immaterial, not limited by the properties of the physical world, may remind us of and transport us to everything that is real or possible. *Project Anywhere*, http://studioany.com/projects/project-anywhere/ (access: 10.6.2020).

[31] M. Helenowska-Peschke, *Architektura w kontekście fenomenu wirtualnej rzeczywistości*, Czasopismo Techniczne Architektura, 2011, vol. 108, no. 4-A/2, pp. 141–146, https://repozytorium.biblos.pk.edu.pl/redo/resources/32382/file/suwFiles/HelenowskaPeschkeM_ArchitekturaKontekscie.pdf (access: 15.4.2020).

Virtual space is also a place where architecture is created not as a simulation of a planned physical object but as the realization of ideas, fleeting visions, and dreams, metaphors and illusions, concepts without the limits of the physical world, without specifying, forcing and distinguishing directions of perception and cognition. Virtual architecture from this point of view becomes a creative manifesto, a symbol of an era, in which it is created.

Aleksander Asanowicz formulates a thesis that "in the area of the interface man-computer there is a quality revolution. It is possible to enter virtual worlds where nothing other than virtual forms exist."[32] Due to the above and due to the popularization of digital technologies today we can already speak of a new generation – a generation of users and inhabitants of cyberworlds. Krzysztof Kalitko believes, based on Michael Benedict's theory of space, that since in a virtual world similarly to the physical one space may be designed and inhabited, therefore virtual space should be shaped by architectural form.[33] A response to this postulate is the developing concepts of virtual places designated for people to meet, work, study, or play.[34]

Architects due to their knowledge and experience in spatial design, seem to be predestined to design virtual architecture. Virtual space creates other possibilities and other limits, taking into account this aspect, designing in it should not be a direct copy of the real space. However, virtual architecture may take on the form of a skeuomorphic design.[35] Designers who refer to forms and structures recognizable to the user, help him this way to understand and move about in the virtual environment. Virtual architecture may also take on the form of a relation between elements and objects located in the virtual space. Marcos Novak, one of the premier contemporary ideologists and creators of virtual architecture in the world, who refers to himself as a transArchitect,[36] created the concept of liquid architecture, imma-

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[32] A. Asanowicz, *Systemy rzeczywistości wirtualnej w architekturze*, Architecturae et Artibus, 2012, vol. 4, no. 4, p. 11, http://yadda.icm.edu.pl/yadda/element/bwmeta1.element.baztech-9c82ae7e-67f2–4628-a038-c99020c564f4?q=bd85ea7a-c6b8–4a78–8d52-e47ae57169ea$15&qt==IN_PAGE (access: 15.4.2020).

[33] K. Kalitko, *Architektura wirtualnej kolonizacji*, Kultura Współczesna, 2003, vol. 37, no. 3, pp. 78–79, https://www.nck.pl/upload/archiwum_kw_files/artykuly/7._krzysztof_kalitko_-_architektura_wizualnej_kolonizacji.pdf (access: 15.4.2020).

[34] Currently, video games are the most colonized area of the virtual world. They are characterized by a wealth of worlds in which space is an important element of the game. The space assumes various functions in relation to the attitude of service. Space is a tool to help, the player gets to know the world and the laws that govern it. The shape of the environment and its appearance symbolize the ideas, aspirations and artistic visions that accompany it. Space in the game of history, the game designer is more an architect than a creator of the story. Most fascinated internet users in the digital world parallel to real virtual life. An example of such phenomena can be the game "Second Life." Several million game users, called residents, inhabit a free virtual world. In this world, they appear in the form of a customized avatar. Each player has the option of limiting the environment. It can also create three-dimensional objects using embedded software. The characters are animated and played by players not only on how they look and move, but also on the sounds they play. SL has its own currency for which you can buy land, goods or services.

[35] The recreation of the property, shape texture, color, or function of the original object in a substitute material. Skeuomorphism may be used purposefully in order for the new look to seem familiar and friendly

[36] "The term 'transarchitecture' describes a 'transformation or transmutation of architecture in the direction of overcoming the contradiction between the physical and the virtual as well as the suggestion of continuum, which leads from physical architecture to technologically enhanced architecture to cyberspace architecture. Transarchitecture is to be perceived as a way of expanding and strengthening

terial architecture of cyberspace, whose form morphs in accordance with the needs and the intentions of the viewer.

2.8 REAL UNREAL

The attempt to answer the question about truth or lie in the case of defining architectural space is extremely problematic and quite complicated. Meandering among the issues of semiotics, logic, psychology, computer science, and architecture brings about numerous difficulties. In contemporary discussions on the subject of virtuality, which also encompasses architecture, once again we are discussing the question of relations which occur between reality and virtuality, physicality, and intentionality. The questions of sensual perception, perception, and experience are reconsidered. More and more often we ask ourselves the question whether virtual is real or is it false, a lie, an illusion?

In the present article in referring to virtual architecture, we use the terms "real" and its contradiction "unreal". In our opinion, such a comparison better shows the character of relations between reality and virtuality (the issue of objective truth has not been agreed upon to this day, while we consider a lie to be intentional and as such we exclude it from the domain of architecture). It is difficult to come to unambiguous conclusions living in the era of post-reality, where the real world penetrates the virtual one and vice versa, while the borders between them become blurred. Searching for the answer about the reality of virtual architecture, in order to make this task possible, we believe it is necessary to establish a point of reference.

We believe that the most obvious point of reference in our reflections is the existence of man in a real, physical, and material world. In such a context, the architecture which we deem as real is the physical and material architecture that surrounds us, which we fully experience with all our senses.

Thanks to the development of virtual reality technology, it is possible to achieve complete immersion and experience of virtual architecture with the participation of all the senses. Virtual architecture comes from the material world and it is built to resemble physical architecture. Man, as the common element of material and virtual worlds, brings the meaning and prototypes from the real world into the virtual world as the secondary one. The virtual architecture generated by devices and tools (media) which are elements of the material world, remains an immaterial creation. It is an illusion of direct experience which does not occur physically. In the simplest of systems, virtual architecture must be regarded as not fulfilling the conditions of existing in the real world (physicality, materiality, direct impact) and as a consequence it is unreal.

However, if we assume that virtual architecture does not step outside the boundaries of the digital world with its direct actions, but only indirectly through man (the common element) do the effects of its impact materialize in the physical world and as a consequence we establish the existence of identity among various entities (the breaking of the law of

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the goal and meaning of architecture in the era of information, which allows us to research alternative paths to narrow borders of the discipline of construction. Transarchitecture studies the aspects of technological and theoretical progress of space and their connection with the studying of various spatial patterns, which could not have been studied earlier. Computers should be seen both as tools for studying these spatial patterns as well as the creators of instances for new architecture."' *Marcos Novak*, https://www.floornature.de/marcos-novak-5052/ (access: 10.06.2020).

contradiction)[37] as a reference point, we can say that virtual architecture is real in the context of the physical world.

In treating the virtual entity as a representation of the user which is subject to rules and functions according to the principles of the virtual world, and virtual architecture as an environment of its functioning, we move the context of evaluation outside the material world.

The fact that we ourselves become part of the virtual world, becomes a reference point and we assume that the architecture surrounding us is real. It takes on, similarly to the physical world, the appropriate functions and is a counterpart of real space. It defines conditions of use, facilitates orientation, sorts and segregates spaces. Is the equivalent of real space in virtual space.

3. SUMMARY

We are currently witnessing the birth of a new trend in architecture design. It is the virtual architecture available through digital technologies, which is governed by its own laws and is filled with artificially generated stimuli. Full immersion in the virtual world can cause loss of human contact with reality and wrong perception of the real world. However, despite the threats, for architects it is undoubtedly a chance to explore and visualize the world existing so far only in the imagination. Freedom and liberty in creation will allow you to break with design conventions. As a result, it should be hoped that the architecture of the future, taking advantage of the richness of experience flowing from alternative realities, while remaining firmly rooted in the stimuli of the real world and a properly formed "reference point," will not lose the essence of true architecture.

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AN EASY LIE OF OFFICE ARCHITECTURE

ŁATWE KŁAMSTWO ARCHITEKTURY BIUROWEJ

Abstract

The aim of the article is to present contemporary methods of stylizing office space interiors into playful zones. The subject of the research is the search for the causes of such activities whose effects are on the borderline between kitsch and genius. The analyses were based on the methods of literature research, inventories and background survey. The results of the research show the truth and the lie about Polish office spaces.

Keywords: office architecture, play and work, creative workplace

Streszczenie

Celem artykułu jest zaprezentowanie współczesnych metod stylizacji wnętrz przestrzeni biurowych na strefy kojarzone z zabawą. Tematem badań jest poszukiwanie przyczyn takich działań, których efekty stoją na pograniczu kiczu i geniuszu. Przeprowadzone analizy oparte zostały na metodach badań literaturowych, inwentaryzacyjnych i wywiadach środowiskowych. Wyniki badań obrazują prawdę i kłamstwo o polskich przestrzeniach zabawy w biurach.

Słowa kluczowe: architektura biurowa, play and work, kreatywne miejsce pracy

1. INTRODUCTION

Architectural design is constantly changing. Changes are generated by the desire to improve architectural buildings and interiors and by the changing needs of users over time. This is particularly noticeable in the design of public and semi-public spaces. These include office architecture. These changes can be noticed by two groups of users, which makes them reach a wider audience more quickly. One of these groups are office workers, who are regular users of office space. The second are customers or associates whose office space should encourage the establishment and maintenance of professional cooperation. Office interiors must meet the utility needs of both groups. There are also greater expectations of the office buildings. Often these objects, through their external and internal creation, should emanate in a way that emphasizes the strong and stable position of the company in the economic market. They can even be expected to influence the subconsciousness of customers and employees in order to build confidence in the credible and serious activity that the company offers. But the last decade seems to have broken this belief. Observing for example the office buildings of the giant foreign IT market, one can see interiors that at first glance cannot be associated with the workspace. Google's office buildings are filled with spaces equipped with installations and devices that are rather reminiscent of a playground, amusement park or computer game room.

Moreover, in some office buildings there is even a spa area for employees. For tired employees of the company, there are even rooms for naps or devices dedicated to taking a nap at work. It is questionable whether such a physical environment is conducive to working conditions and processes? The question seems all the more important if we take into account the fact that Polish office architecture follows foreign trends.

1.1 AIM OF THE RESEARCH

The aim of the research presented in the article is to show zones in Polish and foreign office architecture which balance on the border of kitsch and genius in the process of shaping the work environment. At first sight they are associated with fun. Some of them may refer to a design trend called play and work.[1] Are they only a function of breaking the standards of office architecture design or do they also have some utility functions? What are they located in office buildings for? They have a negative impact on work processes, or maybe the opposite? However, the most important is the issue of examining the discussed situation in the Polish conditions. Is the location of play areas in Polish office buildings successful? What do the employees think about them? Does following foreign trends in this respect guarantee success for Polish companies or is it just an easy lie about innovation and modernity?

1.2 RESEARCH METHODOLOGY

The research was carried out using literature research related to the creation of a database on foreign office buildings of companies that dominate the international or domestic economic market. After collecting information on the controversial directions of designing foreign office architecture, an inventory survey of Polish office buildings was conducted. To supplement the information on Polish objects, literature research was also conducted. Environmental interviews were conducted with Polish employees and entrepreneurs. The research started in 2017 and is still ongoing. The results of the research are intended to attempt to present the opinions of employees about the space in question. Thanks to the results of the study, an attempt was made to establish the truth about modern Polish office architecture.

2. KITSCH OR PROGRESSIVE OFFICE ARCHITECTURE?

Comfort and efficiency of work has always been an overriding goal to be achieved by office buildings built around the world. And certainly, this issue appeared when creating new works of office architecture as one of the main interpretations of the appearance and functional layout of a given project. The arguments related to the influence of architecture on the effective working environment were supposed to convince both investors and employees of the rightness of the work that the architect created. Today it is already known that some of them turned out to be lies. One such example is once very popular open space office buildings. The giant open space was to facilitate the organization of the space by eliminating architectural barriers such as walls. Initially, it was believed to be a literal symbol of openness which

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[1] S. Brown, C. Vaughan, *Play. How It Shapes the Brain, Opens the Imagination and invigorates the Soul*, Avery, New York 2009.

makes cooperation easier for employees and guarantees them direct contact. Such space also made it easier to control everyone working in the building. Like an unlimited space, it was possible to check the progress of a large number of people at one time. The passage of time verified the functionality of open space office buildings in terms of working comfort. Spaces of this type generated an enormous amount of noise, encouraged distraction and had a negative impact on the quality of work.[2] Contemporary office architecture also uses open spaces, however, they are much smaller and usually mixed with different functional layouts used in such buildings. The passage of time in this case not only verified the lie about the openness of the office space, but also learned from it and used it to create a compromise that seems to meet its original assumptions. Perhaps a similar scenario will be developed for play and work spaces. The idea of this type of work is to combine fun and work. In order to understand the concept of the play and work buildings, it is important to analyse what the effects of participating in play can be. One of the goals is certainly building a positive attitude in the working environment. The actions performed during the game evoke amusement and cheerfulness. They also generate enthusiasm and encourage interaction with other employees. These are some of the aims and objectives of play and work office spaces. Thus, one can deduce from the narrative for office interiors inspired by popular places connected with fun. In some office interiors there is a literal attempt to adapt elements of the amusement park to the working space (Ill. 1).

Ill. 1.   Interior of the Singtel Office building in Singapore. Source: www.contemporist.com (10.6.2020)

Such treatments are also noticeable in Polish office architecture. However, the boldness of the arrangements of Polish offices does not seem to be an attempt to adapt the play space in

[2] G.W. Evans, D. Johnson, *Stress and Open-Office Noise*, Journal of Applied Psychology, 2000, vol. 85, no. 5, pp. 779–783.

a way similar to foreign offices. However, this is an attempt to imitate the trends and design directions used in the office buildings of well-known companies. The way of literally transferring the styles and arrangements observed in office buildings such as Google does not always end in success. Perhaps the cultural context should also be taken into account. Capitalism in Poland has a relatively short history compared to foreign countries such as the United States of America. One of the historical consequences is certainly the attitude to work. However, the important aspect is whether the play areas in Polish offices are actually used in the same way as in foreign offices? Are they perceived by Polish employees as elements of kitsch or maybe they can actually be used to improve the work environment?

2.1 PLAY AND WORK OR JUST PLAY?

Infor Polska office in 2019 was appointed the best office in Lower Silesia.[3] The functional layout of the office is based on open space, but it is balanced and divided into different functional zones. In the office building there are muted areas probably intended for individual conversations or teleconferences. In the building there is located a brain storm room. There is also no shortage of conference rooms of different sizes which can be used according to current demand. The office building has a social zone in the form of a kitchen and bar table. The space seems to be balanced. One of the zones is particularly striking. This is a chill out zone. Fenced off by vertical partitions, it is equipped with cushions associated with the equipment of the children's room rather than the workstation. In the chill area there are large screens which are certainly multifunctional. Chill out spaces are one of the most popular types of spaces that have adapted to Polish conditions. Unlimited possibilities related to the way of location, size adjustment and variety of equipment make it easy to adapt to almost every office. Similar zones can be observed in office buildings such as Google, eBay or Lego. Are these areas just for fun and relaxation? This is a debatable issue and depends on many factors. It is certainly important how the effects of work are expected to be achieved and for which employees the space is dedicated. The chill out zone can be very useful for individual and creative work.[4] An employee performing the above-mentioned mode of work is characterized by the need to search for new solutions to the problem under investigation. Such work processes are supported by providing incentives to act and stimulate thinking. A chill out space, properly equipped and designed, can provide a plane for delivering such stimuli.

2.2 AN EASY LIE OR INSPIRATION
FROM FOREIGN TRENDS IN OFFICE ARCHITECTURE DESIGN?

The typology of space initiated in the design of play and work type offices is constantly evolving and is formulated differently in the architectural context.[5] The mode of work that combines fun and work can be interpreted differently. The project possibilities are actually

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[3] R. Zieliński, *Tak wygląda najlepsze biuro we Wrocławiu, laureat konkursu Office Superstar*, Gazeta Wyborcza, 7.10.2019, https://wroclaw.wyborcza.pl/wroclaw/7,35771,25281841,tak-wyglada-najlepsze-biuro-we-wroclawiu-laureat-konkursu-office.html?disableRedirects=true (access: 10.6.2020).

[4] W. Witczak, *Zdolność do ciężkiej pracy umysłowej*, Teka Komisji Prawniczej, 2008, vol. 1, pp. 208–216.

[5] I. Piklikiewicz-Kęsicka, *Modernity of Workplace Architecture* [in:] *Defining the Architectural Space. Tradition and Modernity in Architecture*, vol. 8, Oficyna Wydawnicza ATUT, Wrocław 2019.

limited only by the investor's budget and his preferences as the owner of a given company. Imitation as a form of inspiration and following foreign trends is conditioned by the desire to achieve prestige, high market position and effects of foreign global companies. It is also a way of striving for professional contacts and international cooperation. The implementation of similar working conditions to those prevailing in Asia or the USA are certainly a factor determining whether a given employee will want to build the capital of a Polish company and be a part of its team. This concerns both Polish and foreign employees. In particular, industries based on creative work have the right sectors for finding the right employees for their company. Of course, the working conditions and environment are one of the factors as important as the level of remuneration, the status of the company or its development prospects. As a result, in Polish office buildings can be observed amazing equipment such as slides, jacuzzi or ping-pong tables. But are they located and designed effectively? One of the answers to this question may be a design procedure performed by Apa Smart office building located in Gliwice. The building is to be a symbol of the company's motto – taming of technology. The company is involved in designing intelligent solutions for everyday life activities, safety and improving living comfort. According to the company's assumptions, the office building is equipped with intelligent solutions aimed at improving its users' functioning. One such solution is a developed roof space.[6] A part of the space is used for recreational purposes, where physical activities for employees are organized. The remaining part was used as a greenhouse for plants, a place for photovoltaic panels and a beehive. It is certainly an element of imitating foreign companies in the directions of ecology and sustainable development. A similar solution, although on an incomparably larger scale, was chosen by The Timberland Company. Timberland cultivates and makes a fruit, vegetable and herb garden available to employees.[7] The huge space is not located on the roof but on part of the area surrounding the company's office building. Apart from their size and location, these two green spaces definitely differ in the way and purpose of their functioning. Timberland's office gardens are cultivated by company employees. The harvest in the form of vegetables and fruit is partly handed over to the local food bank. The company's aim is to encourage employees to be active and interact with each other, as well as to cultivate their own home gardens. It is certainly a very interesting form of recreation in the open air, as well as an activity according to the assumptions of horticultural therapy. This workplace is certainly distinguished by its innovative thinking about the working environment and work processes. In Apa Smart's office it was decided to use a robot called FarmBot to grow plants in the greenhouse. Employees do not actively participate in planting on the roof of the office. So, what are the benefits of locating this type of greenery in the workplace? In this case, it seems that only the marketing and testing benefits of this type of equipment seem to be in the focus. The benefits for the improvement of the working conditions and environment are limited in this case to a visual appreciation of the effects of the crop. Not only physical changes introduced to Polish offices are a factor that guarantees their innovativeness in the way some foreign facilities are characterised by. In order to achieve full success in this matter, changes related to Polish thinking about work processes and people who do it are needed.

[6] K. Dobrowolski, *LEANowy networking w Gliwicach*, Lean jest dla ludzi, 2018, https://leanjestdlaludzi. pl/lean-spotkanie-networking-gliwice/ (access: 10.6.2020).

[7] V. Elmer, *Gardening at work is sprouting up all over*, Fortune, 2011, https://fortune.com/2011/04/11/ gardening-at-work-is-sprouting-up-all-over/ (access: 10.6.2020).

2.3 FEEDBACK FROM EMPLOYEES

Chill out spaces, as already mentioned, have become very popular in Polish office architecture. They are realized in various forms, sizes and devices. The Euvic office building is an example of using play areas in the workplace. The facility is located in the eastern part of the city in the district of Sośnica on the border with the city of Zabrze, which is not a very representative part of Gliwice city. The area of industrial character is located in the vicinity of railway tracks and is associated with a rather unsafe district of the city. Locating office buildings in such areas is most appropriate. This can not only increase the number of jobs but also provide an opportunity for a modern and friendly area surrounding the facility. In the case of the study of the Euvic office building, no measures were identified to improve the aesthetic value of the district. Only the interesting facade of the building has a small but positive impact on it. Considering the industrial character of the city, it is difficult to find more effective space to use ecology and green elements such as green walls. However, it was decided to use plant elements in some work areas in the interiors. They are located, among other things, at a large recreation area designed also for playful activities. The room is located on the underground floor where a modern kitchen and technical rooms are also located. The playroom is about 30 square meters. It is equipped with various types of seats, a foosball table, a skateboard and a video game zone. The environmental interview with employees shows that the space is not used too often. It is rather used for meetings and gatherings which is facilitated by a sliding projector located at the entrance to the room. Interestingly, there is a small space directly behind the game room which originally probably had technical functions related to the operation of the building. On the day of the study, the room was used for the work area. This was explained by the rapidly growing team of employees. Narrow, small and dark space is far from the ideal of a creative workplace. However, it was not decided to use the already unused chill out zone for new workstations. There are many available solutions for combining chill out zones and workspace, which showcase foreign projects.[8] Increased knowledge of the subject could help to avoid uncomfortable working conditions. The situation described may reveal another aspect concerning the company under investigation. The conclusion is to put the prestige of having a chill out zone in an office building above the comfort of employees. What do employees think about the playroom? Why do they not use it or use it very rarely? Interviews with employees show that they are afraid to evaluate their own work. They suspect they may be blamed for poor worktime organization caused by using the chill out zone. A similar opinion prevails among employees of another office located in Gliwice called Future Processing. The company is located in several buildings adjacent to each other. The area surrounding them is used for green areas and recreation zones. The offer for additional play areas for employees is very broad in the case of Future Processing. However, according to background survey, not all are used. This is especially true of a slide located in one of the buildings. One of the employees described the slide as 'embarrassing' and 'ridiculing' his work (Ill. 2). Locating such a device in office buildings became popular after the publication and articles about the Google office building located in Silicon Valley.

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[8] For example, Uniplaces Office in Lisbon or Saatchi & Saatchi Office in New York.

Ill. 2.   Slide located in Future Processing Office. Photo taken by author in 2017

Future Processing is certainly one of the companies that puts employees first. Perhaps it is connected with the awareness of how important is the employee's satisfaction with the broadly understood work environment in the process of building the company's success.

Therefore, the company has quite an extensive human resources department, including the cultural sector. The exact scheme of the management of the company is a secret. In the research process, however, it has been possible to get information on certain strategies concerning the play and work space. Personnel members systematically monitor the frequency of use of the chill space by office employees. One of the ways of tracking the use of these spaces are cyclical interviews with groups of employees. Employees can, of course, discuss any issues concerning the working environment during such meetings. They are also surveyed for satisfaction with the presence of the chill zones and asked if they use them. If the results of the conversations are negative, the causes of negative attitudes towards relaxation and play areas are examined. Background survey also shows that employees are encouraged to use the chill out areas and are interviewed for what purpose and how to use them. This is certainly the reason for the success of other chill out areas such as the spa area, massage rooms, gym, library and video game room. Working for Future Processing is quite desirable by the IT industry environment, and the recruitment process is divided into many stages which verify, among others, creative and productive thinking. This is certainly influenced not only by the rapidly growing company, but also by the attitude towards the employee. The environmental interview with employees shows that they particularly value the spa area and the office gym. They also often use the services of a masseur employed in the company. These spaces are usually used before or after work. It is also possible to use the described zones at any time during the working day.

3. SUMMARY

Does Polish office architecture balance on the verge of lying about modernity and innovation of the creative work environment? On the basis of the facilities presented in the article, such a conclusion may be drawn. Often employers set their companies' prestige goals by identifying them with possessions. Having modern solutions and showing openness to innovation in order to establish international cooperation and build one's own brand. Such a lie, if it is not verified by company owners, will certainly be verified by employees over time. One of such lies is to imitate foreign trends and apply them in the Polish working environment while not understanding the purpose of their use. This causes not only spatial chaos, but also disorientation in the social working environment.

3.1 TRUTH ABOUT PLAY AND WORK

Knowing the definition of play and work is essential to attempt to introduce this type of work into office architecture. It is quite closely related to the typology of activity-based working. This is primarily based on broadly defined activities during the working day. The definition of this concept involves the achievement of three components.[9] These are the goal of achieving fun, a high degree of interaction and an enthusiastic attitude. The emphasis here is clearly on the appropriate design of the functional program for the play areas. These zones should be interactive which means generating a reaction with a user or group of users. Workplace

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[9] N.A. Celestine, G. Yeo, *Having Some Fun with It: A Theoretical Review and Typology of Activity-Based Play-at-Work*, Journal of Organizational Behavior, 2020, article in press.

architecture has a significant impact on the enjoyment of the working environment. Play and work zones allow employees to experience more pleasure during the work, which has a significant impact on its effects.[10] A positive attitude and vigour at work are the basic factors contributing to the company's success. So, it's understandable that many foreign companies style the workplace into a fun space.

3.2 PARTICIPATION AND INTERVIEWS WITH EMPLOYEES – THE KEY TO THE TRUTH

The desire to apply play and work zones in Polish office architecture is understandable. It is a result of the pursuit of modernity and a symbol of opening up to new solutions. However, the decisions made with the location of the play and work space should be made consciously. The wide range of typologies of the play area that is available should be limited according to employees' preferences and the nature of the work. An interesting aspect in this context is the play and work offices, which allow employees to come to work with the dog. The previously controversial solution has been applied in the Polish office buildings of Nestle Purina.[11] The company has also launched the *Pets at Work Alliance* and provides detailed information on the benefits of having dogs in workspaces on its website. The page contains tips on how to adapt the office according to the idea described. Studies are also available on the offices that are pets friendly. They show that more than 1/3 of the employees are healthier and happier if there are animals in their workplace. However, literature research shows that this type of solution generates various activities prior to adapting the office for animals.[12] First of all, the consent of all employees is essential. Information on the nature of animals and possible behavioural training is also needed. This is to avoid aggressive behaviour between them and towards employees. The animals must also be vaccinated and tested for diseases. It is also important to know about potential allergies among workers that could be caused by animals. These are just a few steps before adapting the workplace for dogs. This example perfectly illustrates the need to participate with employees in adapting their workplace to the idea of play and work. In the absence of co-creation of a workplace with a team of employees, the Polish office architecture exposes itself to a lie about a modern and creative workplace. The key to the truth of the creative workplace is certainly to verify that employees use the play and work areas in a way that has a positive impact on their work and its environment. Interviews with employees about the selection of appropriate typology and equipment of play zones can be a success in developing a given company. In Polish companies that employ several hundred employees, it will not be possible without training them in the proper use of play areas. The decision on how to adapt the workplace to the idea of play and work should be made after prior analysis and outlining the objectives that a given company wants to achieve through such an approach.

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[10] L. Fourie, C. Els, L. de Beer, *A Play-at-Work Intervention: What are the Benefits?*, South African Journal of Economic and Management Sciences, 2020, vol. 23, no. 1, art. 2815.

[11] *Zaproś psy do swojego biura razem z Nestlé PURINA*, OOH Magazine, 2018, https://oohmagazine.pl/14858,zapros-psy-do-swojego-biura-razem-z-nestle-purina.html (access: 10.6.2020).

[12] D. Ferguson, *Paws for thought: why allowing dogs in the office is a good idea*, The Guardian, 18.5.2016, https://www.theguardian.com/money/2016/may/18/dogs-in-office-canine-colleagues-staff-wellbeing (access: 10.6.2020).

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[10]   *Zaproś psy do swojego biura razem z Nestlé PURINA*, OOH Magazine, 2018, https://oohmagazine.pl/14858,zapros-psy-do-swojego-biura-razem-z-nestle-purina.html (access: 10.6.2020).

[11]   Zieliński R., *Tak wygląda najlepsze biuro we Wrocławiu, laureat konkursu Office Superstar*, Gazeta Wyborcza, 7.10.2019, https://wroclaw.wyborcza.pl/wroclaw/7,35771,25281841,tak-wy glada-najlepsze-biuro-we-wroclawiu-laureat-konkursu-office.html?disableRedirects=true (access: 10.6.2020).

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REMARKS ON SHAPING
RESILIENT DWELLING SPACE

UWAGI O KSZTAŁTOWANIU
ELASTYCZNEJ PRZESTRZENI MIESZKANIOWEJ

A b s t r a c t

Are there truths about housing architecture? It may seem tautological to say that home architecture reflects our being in the world. The aim of the article is to search for a new theoretical basis for shaping future residential buildings. The problem of inhabitation is presented in an interdisciplinary perspective. The author analyzes the spectrum of architectural literature, as well as contemporary research work on anthropology and neuroaesthetics. The work's conclusion leads to the imperative of flexible, transformable and personalized housing space.

Keywords: identity, housing architecture, dwelling, resilient space, Open Form

S t r e s z c z e n i e

Czy istnieją definitywne prawdy dotyczące architektury mieszkaniowej? Wydawać się może tautologią sformułowanie, że architektura domu odzwierciedla nasze bycie w świecie. Celem artykułu jest poszukiwanie nowej bazy teoretycznej dla kształtowania przyszłej zabudowy mieszkaniowej. Problem zamieszkiwania przedstawiony zostaje w interdyscyplinarnej perspektywie. Autor poddaje analizie spektrum literatury architektonicznej, a także prace badawcze z zakresu antropologii i neuroestetyki. Konkluzja pracy prowadzi ku imperatywowi elastycznej przestrzeni mieszkaniowej, przekształcalnej i spersonalizowanej.

Słowa kluczowe: tożsamość, architektura mieszkaniowa, zamieszkiwanie, przestrzeń elastyczna, Forma Otwarta

1. INTRODUCTION

Every human activity leaves a trace. Forms and artifacts which we create are traces of our culture, and reflection of identity. Housing architecture constitutes particular part of this activity. Christian Norberg-Schulz writes that building a house is an act of dwelling and belonging to a given place on earth.[1] The activity of building a house and the identity of the human being remain in a continuous feedback relationship. Throughout creating of a dwelling place, we express our culture. The house, on the other hand, is the main axis of human existential space. In his essay "Building, dwelling, thinking" Martin Heidegger points out

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[1] C. Norberg-Schulz, *The Concept of Dwelling: On the way to figurative architecture*, Rizzoli, New York 1985.

that the meaning of the word "to build" has been lost and replaced by the division between the creation of a building and its habitation. German philosopher points out that:

> What, then, does Bauen, building, mean? The Old English and High German word for building, buan, means to dwell. This signifies: to remain, to stay in a place. […] What then does ich bin mean? The old word bauen, to which the bin belongs, answers: ich bin, du bist mean: I dwell, you dwell. The way in which you are and I am, the manner in which we humans are on the earth, is Buan, dwelling. […] Dwelling, however, is the basic character of Being in keeping with which mortals exist. […][2]

The unity of the form of the boat, house and tomb of the peoples who once lived in the Scandinavian areas is the representation of the relationship between man and his work and environment (Ill. 1). These artifacts depict the creator's vision of the world, a set of assertions, beliefs and statements about the nature of reality. They mark the relation between the originator and the environment. Undeniably, modern man does not lack reasons to doubt the epistemological value of these beliefs. One could even predicate that the image of the world based on mythology was false, in the classic sense of the term. However, it seems impossible

Ill. 1. 9th-century Boat Grave at Westness, Rousay, Orkney. Source: viking.archeurope.info. Access: 5.2.2020

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[2] M. Heidegger, *Budować, mieszkać, myśleć*, Teksty: teoria literatury, krytyka, interpretacja, 1974, no. 6 (18), pp. 137–152.

to deny these artifacts sincerity and authenticity. They are false in the meaning of what they state about the world, but true in the reference of what they express, about the identity of creators and their relationship with the surrounding. Is it possible to find this kind of truthfulness in our contemporary homes? Is our housing architecture true? Is it a reflection of our beliefs and knowledge of reality? Without a doubt, our image of the world is constantly evolving. World-renowned cognitive scientist, Steven Pinker, emphasises contemporary science's discoveries by describing our epoch as a new enlightenment. Is this condition also reflected in the embodied image of the world: the house's architecture? Trying to consider this problem, the author will start by referring to the concepts of a primitive hut presented in the texts of Vitruvius and Laugier, pointing to the genesis of the origin of architecture.

2. PRIMITIVE HUT

In architectural theory, the concept of dwelling goes back to the beginning of the field itself. Vitruvius considers the origin of building construction in the creation of the first hut. In his work *Ten books on architecture* he writes:

> Mankind originally brought forth like beasts of the field, in woods dens, and groves […]. A tempest, on a certain occasion, having exceedingly agitated the trees in a particular spot, the friction between some of the branches caused them to take fire […]. Returning to the spot after the tempest had subsided, and finding the warmth which had thus been created extremely comfortable, they added fuel to the fire excited, in order to preserve the heat, and then went forth to invite others […] Thus the discovery of fire gave rise to the first assembly of mankind, to their first deliberations, and to their union in a state of society. […] they were more fitted by the nature than other animals, from their erected posture, which also gave them the advantage of continually viewing the stars and firmament. […] In the assembly, therefore, which thus brought them first together, they were led to the consideration of sheltering themselves […] some by making arbours with the boughs of trees, some by excavating caves in the mountains, and others in imitation of the nest […].[3]

In this description, Vitruvius draws attention to both utilitarian as well as social character of the building. Simultaneously, he shows the key difference between the adaptive, animal way of living and human character of dwelling. The concept of the primitive hut was continued in the treatise of the French Enlightenment theorist, Marc-Antoin Laugier. Defining the principles of ideal architecture in his work *Essei sur l'architecture* he writes:

> [Human] he wants to make himself a dwelling that protects but not bury him. Some fallen branches in the forest are the right material for his purpose; he chooses four of the strongest, raises them upright and arranges them in a square; across their top he lays four other branches; on these he hoists from two sides yet another row of branches which, inclining towards each other, meet at the high point. […] Thus, man is housed.[4]

In addition, Laugier argues in favor of limiting the language of architecture to three elements: pillar, beam and ceiling and he states: "All the splendors of architecture ever conceived have

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[3] Vitruvius, *Ten books on architecture*. Lockwood & CO., London 1874, p. 32.
[4] M.A. Laugier, *An essay on architecture*, T. Osborne and Shipton, London 1755, pp. 11–12.

been modeled on the little rustic hut I have just described."[5] In both Vitruvius's description and Laugier's enlightenment essay, a fundamental, cognitive difference between an adaptive model of existence and inhabitation through building construction is visible. The boundary between the cave-space, into which man has to fit in, and the active creation of the environment, is clearly drawn (Ill. 2). From the point of view of cognitive abilities, creation means the formation of ideas, intentions and mental images of space *a priori*. The transformation of the environment is an active marking of the space in accordance with one's ideas and needs. The basis for the architecture of the house is the abandonment of adaptation in the cave-space in favor of creating a dwelling space. This space is a product of the mind and a trace of identity.

Ill. 2.   Frontispiece of the second edition of *Essai sur l'Architecture* (1755) by French artist, Charles Eisen. Source: primitivehuts.blogspot.com. Access: 5.6.2020

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[5] *Ibidem*, p. 12.

3. CREATING THE SPACE AS AN ACTION
OF THE HUMAN MIND ON THE ENVIRONMENT

Culture understood in this way is the main subject of critical essays by Adolf Loos. Although, the postulates of the Viennese architect for the removal of ornamentation in architecture are often seen as the basis for the idea of modernism and thus the opposition to tradition. In fact, Loos's theory was derived from the analysis of culture as an inter-subjective medium of human identity. His understanding of the relationship between what constitutes public space and private space in architecture is an attempt to take into account human psychological needs. What Loos understands by the term of cultural identity is reflected in his essays on contemporary housing architecture. The architect notes how barren the ornament is when it becomes a kind of paradox, a sign without meaning. Loos applies a similar consideration to the living space which is created and habited by different people. In an article from 1898, he emphasizes the paradox of model flats and the notion of style in house interior design:

> […] the carpenters have exhibited their products. […] the exemplary rooms are exhibited […]. Poor audience! They are not allowed to decide on the decoration of their own apartments. […] A stylish apartment is the achievement of our century […].[6]

Subsequently, he points out the cause of the problem of the furniture industry which, he argues, is not able to act in the spirit of the times, only imitating the patterns of past eras: "Suffice it to say that there was dissatisfaction with one's own era. […] Man […] Immersed himself in another era and achieved happiness as an ancient Greek, as a medieval symbolist or Renaissance man,"[7] In the second part of the same year's article entitled *Interiors in the Rotunda*, Loos continues his remarks on the decoration industry. He focuses his criticism on the housing architecture ignoring personal, psychological aspect of dwelling. "Such interiors bullied their poor owners. Woe to the wretched man who dared to complete the interior and make a purchase himself!"[8] He underlines what makes up the essence of the interior and the home: it consists of a private space, matching and representing the residents' identity. He identifies the fundamental design problem of the housing domain:

> After all, an architect or decorator only knows the name of his client. If the owner had even bought these rooms a hundred times, it would still not be his apartment. It will remain forever the spiritual ownership of the one who invented it […] Thank God I did not grow up in any stylish apartment […] Here's a table, a pretty crazy, strange piece of furniture, folded with a bad slider. But our table, our table! Do you know what that means?[9]

Writing about the designer's spiritual ownership, Loos emphasizes the problem of intentions and ideas. Space is the work of the designer's mind, and the inhabitant is forced to accept it.

An analogous narrative is carried out in the essay *The Poor Rich Man*, pointing out the contradictions behind designing a style for apartments. In his later works – *Ornament*

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[6] A. Loos, *Wnętrza* [in:] A. Loos, *Ornament i Zbrodnia. Eseje wybrane*, Fundacja Centrum Architektury, Warszawa 2013, p. 54.

[7] *Ibidem*, p. 55.

[8] A. Loos, *Wnętrza w Rotundzie* [in:] *ibidem*, p. 60.

[9] *Ibidem*, p. 61.

and Crime (1910), *Architecture* (1910) – he also drew attention to the problem of fashion in architecture and housing style. What supposed to be an expression of identity becomes a stream of meaningless symbols and trends. For Loos, culture means creating an authentic environment, a true one: "Soon I will give a lecture on why the Papuans have a culture and the Germans do not,"[10] Although, the deliberations of the Viennese architect focus on concrete examples: ornament, everyday objects or building form, they show the nature of his thoughts on the role of the inhabitant in creating one's own environment. What man creates is the construction of one's mind. As a result, it is a representation of his identity. Creation, not adaptation to space, is the basis of dwelling.

4. ENVIRONMENT AS A MIND-SHAPING FACTOR

The picture of the issue so far has focused on discussing the difference between the inhabitant's exploitation of the already defined space, and its creation: dwelling. This relationship between man and the environment seems to be directed only from the body to the environment. Concepts, ideas and mental representations, as Ingold points out, are never arbitrarily imposed on the world.[11] On the contrary, they are rooted in it. In his work, the British anthropologist makes a division between the perspective of building and the perspective of dwelling. The first is limited to the human impact on the environment. The source of this activity would be the arbitrary imposition of symbolic and meaningful frames on the world. Ingold points out that such reasoning leads directly to Cartesian dualism, in which what is mental (res cogitans) is separated from the material world (res extensa). In the essay *Building, Dwelling, Living*, he writes: "The starting point in all such accounts is an imagined separation between the perceiver and the world, such that the perceiver has to reconstruct the world, in the mind, prior to any meaningful engagement with it."[12] In response, the anthropologist derives the second of the presented positions: the perspective of dwelling. Ingold's idea is based on the works of Uexküll and Heidegger. Its key aspect is to take into account the role of the environment as a medium for all activities, as well as materials, as a source of ideas in the mind. In this view, building never has a clearly defined end. It is a process that takes place as long as a given structure is inhabited by people.

A Scottish philosopher, David Hume, argued in favor of the thesis that every idea in the mind is derived from sensual impression.[13] In other, poetic terms, Merleau-Ponty described it, writing that the world is the homeland of thought.[14] The next part of the text presents arguments for treating the relationship between man and the surrounding world as a two-way street: by creating an environment we transform the world. On the other hand, the environment is constantly and actively shaping our minds. During the CIAM congress in Otterlo 59', Zofia and Oskar Hansen gave a manifesto of Open Form in Architecture. The architects declared:

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[10] A. Loos, *Architektura* [in:] *ibidem*, p. 145.

[11] T. Ingold, *Building, dwelling, living: how animals and people make themselves at home in the world* [in:] T. Ingold, *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill*, Taylor & Francis, London 2011, pp. 172–188.

[12] *Ibidem*, p. 178.

[13] D. Hume, *Badania dotyczące rozumu ludzkiego*, Zielona Sowa, Kraków 2004, pp. 17–33.

[14] M. Merleau-Ponty, *Fenomenologia percepcji*, Fundacja Aletheia, Warszawa 2001.

> Architecture until now: has not solved the problem of necessary quantity. […] has as a "closed form", not accepted changes in the mode of life, and becomes obsolete before it is even realized. (It) has broadly disregarded the tenant's psychological needs and is often inhuman.[15]

The manifesto of Open Form is based on the need to define the relationship between an individual and the world. Three scales are distinguished, and for each of them appropriate architectural measures for the creation of housing are assigned. The macro scale is the place of the individual in the world. Here, the Hansens postulate the participation of the authorities in the designation of settlement sites and general urban planning. On a mezzo scale, it is the role of the community to commit the housing construction. An essential role is to be played by the architect, who accepts the order and plans to create a framework for the further activities of the residents. This is linked to the last and most private micro scale. The aim of design is to allow maximum flexibility of space, for the owners to continue creating their homes. The Hansens also pay attention to the semantic level of the Open Form. While the former Closed Form in art and architecture was representative, the Open Form allows each person to find their own interpretation. It claims to be an egalitarian art. For the Hansens, building is not about creating a finished and closed work, but rather about designing a kind of substructure for the inhabitants' further actions. It is about an initiation of the process through an appropriate background. "[…] In housing we shall have a polemic of viewpoints on the creation of one's own surroundings, characterized by an appropriate 'background.'"[16] The relationship between man and his space is defined as a feedback, described by the Hansens as an active negative. Man participates in the creation of the world, and the world gives the framework for one's existence. The world is captured smoothly and continuously. The Hansens stance is compared to the hodological space, a construct in the field theory created by Kurt Lewin.[17] The environment and man, in it, form two mutually interacting elements of one system. Lewin's environmental psychology brings the discussion closer to another important point: James Gibson's theory of direct perception.

According to the concept of *affordance*, the perception of the environment is not mediated by the mental representation of objects in the environment. Gibson's model is based on direct perception of subjective utility of objects. Space is thus perceived by the multitude of activities it offers to man.[18] The world is not a static image on the retina, but a collection of potential actions. Perception is not purely visual, but being multimodal in nature, it is anchored in embodiment.

Similar conclusions were reached by researchers in the field of neuroaesthetics who deal with the functioning of the so-called mirror neuron system. In their experiments, Vittorio Gallese and his team led to the discovery of a special group of neurons in the motor cortex of macaques. This specific group of brain cells reacted with activation, both while performing a given movement activity and observing its performance by others or even simulating it.

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[15] O. Hansen, Z. Hansen, *The Open Form in Architecture – the Art of the Great Number* [in:] A. Kędziorek, Ł. Rodunda (eds.), *Oskar Hansen: Opening Modernism*, Muzeum Sztuki Nowoczesnej w Warszawie, 2014, pp. 7–8.

[16] *Ibidem*, p. 8.

[17] J. Ockman, *Oskar Hansen's Radical Humanism: Open Form Against a Cold War Background* [in:] A. Kędziorek, Ł. Rodunda (eds.), *Oskar Hansen: Opening Modernism*, Muzeum Sztuki Nowoczesnej w Warszawie, 2014, p. 32.

[18] D. Dotov, L. Nie, M.M. de Wit, *Zrozumieć afordancje: przegląd badań nad główną tezą Jamesa J. Gibsona*, Avant, 2012, vol. 3, no. 2, pp. 282–295.

Gallese's further work aimed to indicate the occurrence of this system in humans as well and to test the theory of embodied simulation – a hypothesis put forward by the Italian researcher, according to which seeing involves the reaction of the whole body, taking place by simulating both potential actions in the environment and the behaviour of other people.[19] Gallese argues that the mirror system in humans is a kind of medium between the solipsistic self and the intersubjective sphere of culture and environment.[20] Ramachandran draws attention to the importance of the mirror neuron system for the creation of the human species.[21] Due to the ability to recognize actions, through their internal simulation, humanity was able to move away from an adaptive model of life and move on to producing tools or houses. These discoveries lay the foundations for understanding the experience of space. The reception of space is embodied. This way, we perceive the world as a plane of action. We recognize the potential for action – obstacle, opening, stairs. The organism has a continuous relationship and feedback with the environment. Juhani Pallasmaa writes:

> We behold, touch, listen and measure the world with our entire bodily constitution and existence, and the experiental world is organised and articulated around the centre of the body. "I am the space where I am", as the poet Noel Arnaud put it.[22]

5. THE POTENTIAL OF A FREE PLAN

Laugier's rationalistic concept of the genesis of the first hut assumes that only elements that provide shelter and resist the force of gravity are needed to erect a building. The archetype of the house so defined consists only of pillars, beams and the ceiling. In the story of the French architect, leaving the cave means moving away from the use of space towards its creation. A pillar is a defining element of the space, but not the closing one. Laugier's argumentation lays the foundations for the idea of a free plan.

The *plan libre* concept was proposed by Le Corbusier in the early 20th century. Although Le Corbusier uses the pillar as a formal procedure, he seems to completely dismiss the resident as an active subject. The house is not considered as a private space, but as a product: "[…] There is a lack of a proper state of mind. […] the state of mind necessary to live in mass produced houses […]."[23] Technical criteria are predominant:

> […] the question is: can't you produce houses? This is a truly modern state of mind […]. The house […] will be a tool, just like a car. […] If we root out the unchanging concepts of the home from the heart and mind and consider this issue from a critical, objective point of view, we will come to the house as a tool […].[24]

[19] V. Gallese, *Finding the Body in the Brain. From Simulation Theory to Embodied Simulation* [in:] B.P. McLaughlin, H. Kornblith (eds.), *Goldman and His Critics*, Wiley-Blackwell, Chichester 2016. pp. 297–314.

[20] V. Gallese, *Embodied Simulation: From Neurons to Phenomenal Experience*, Phenomenology and the Cognitive Sciences, 2005, vol. 4, no. 1, pp. 23–48.

[21] V.S. Ramachandran, *Neuronauka o podstawach człowieczeństwa*, Wydawnictwo Uniwersytetu Warszawskiego, Warszawa 2012, pp. 138–155.

[22] J. Pallasmaa, *The Embodied Image: Imagination and Imagery in Architecture*, John Wiley & Sons, Chichester 2011, p. 125.

[23] Le Corbusier, *W stronę architektury*, Centrum Architektury, Warszawa 2012, pp. 253–263.

[24] *Ibidem*, p. 257.

Le Corbusier's free plan is far from the idea of a home, as defined by Laugier. The modernist concept serves as a formal manipulation, a composition of a finished work.
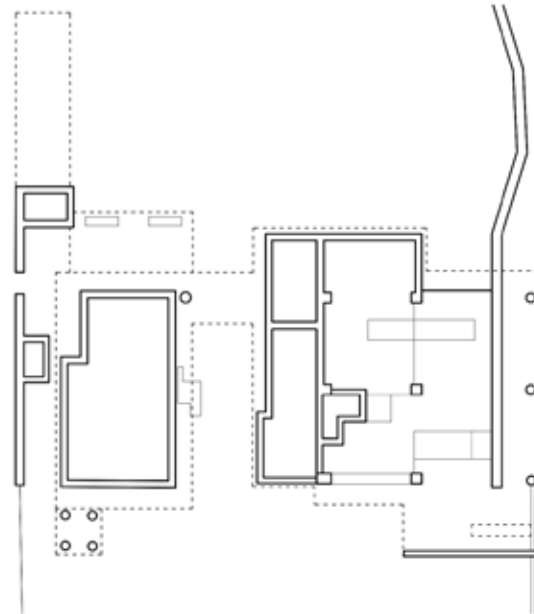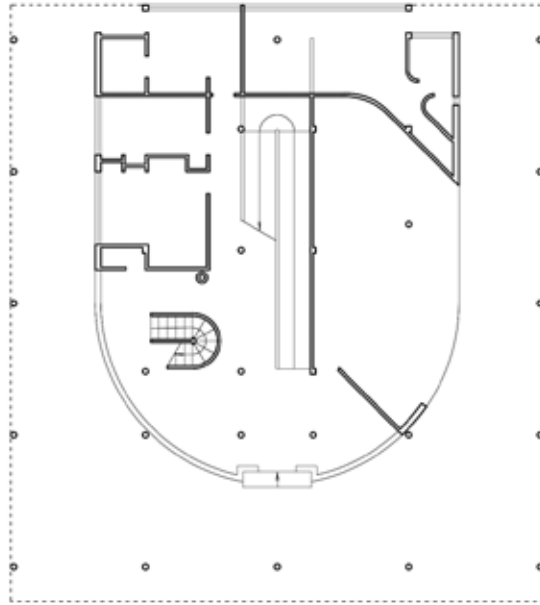
Ill. 3.   Comparison of scheme plans of Villa Savoye (at the top) and Szumin House (bottom). Prepared by the author

This very finality of the work is criticized in the manifesto of the Open Form. Although the Hansens are undoubtedly influenced by Le Corusier's ideas, their concept presents a free plan as a liberation of space from limitations, in favour of giving a multitude of possibilities in its shaping to the household. The plan for Villa Savoye is tidied up, finished before the habitant is included in the process. The plan of the Hansen's Szumin house represents a form and composition constantly subject to transformation, a space for dwelling (Ill. 3). Their comparison illustrates the difference between a house as a work of art and a house belonging to a resident.

6. CONCLUSION

We should return to the question posed in the introduction: is it possible to create real housing architecture today? The aim of the considerations was to indicate the basis for creating a housing environment: the shaping of space by the mind of a resident and the influence of the housing environment on the mind of a resident. Nowadays, the architect has become an intermediary between the design of the house and its erection and the subsequent dwelling of the tenant. Is it possible for an architect to create a house as the embodiment of cultural identity of the habitants? Today's images of the world seem to be more polarized than ever, and thus impossible to unify on a social scale. How to find common ground for the image of the world proposed by naive realism and the one presented by science? Attention in the creation of housing should be directed at restoring the original relationship between building and dwelling. The typology of the building consisting of brick walls and unchanging layouts of rooms is closer to the typology of the cave than the archetype of Laugier's or Vitruvius's house. To reflect the original character of the unity of building and dwelling, the architect is forced to re-evaluate his position in the process. It seems to be an imperative to stop creating a housing space in the form of defined, unchangeable room layouts and at the same time to notice the potential of a free plan. Only due to its utilisation, the inhabitant becomes an active creator of space and the house becomes a space of *true* dwelling.

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METAPHORES OF EXPRESSIONISM ARCHITECTURE

METAFORY ARCHITEKTURY EKSPRESJONIZMU

Abstract

The text refers to the dependencies that exist between architecture, which is an expression of a metaphor, i.e. a certain pretext for the creation of a work. Many creators negate the metaphorical message of architecture, focusing on rational aspects and functionality, which is obvious. There are objects that hide a number of meanings, cultural codes, and are saturated with emotions. The research was carried out on the basis of an analysis of the available literature relating to the subject of the work, as well as an analysis of selected photographic documentation.

Keywords: marine architecture, expressionism, lie and truth in architecture, poetics, metaphor

Streszczenie

Tekst odnosi się do zależności, jakie występują pomiędzy architekturą, która jest wyrazem metafory, czyli pewnym pretekstem do powstania dzieła. Wielu twórców neguje metaforyczny przekaz architektury, skupiając się na racjonalnych aspektach i funkcjonalności, co jest rzeczą oczywistą. Są obiekty, które ukrywają szereg znaczeń, kodów kulturowych, nasycone emocjami. Badania przeprowadzono na podstawie analizy dostępnej literatury, odnoszącej się do tematyki pracy, jak również analizie wybranej dokumentacji fotograficznej.

Słowa kluczowe: architektura marynistyczna, ekspresjonizm, kłamstwo i prawda w architekturze, poetyka, metafora

1. INTRODUCTION

> We start by answering the question whether art is true or a lie. Picasso said, and I quote from memory, 'art is a lie, but a lie that brings us closer to the truth'. If you can say that my house is a villa-fortress, then we are in the realm of a delicate lie. I call it a GREAT LIE.[1]

The words of Dariusz Kozłowski may become the motto of contemporary architecture. They can also be an optimistic thought for the creators of contemporary expressionism, whose works exude refinement with dynamic expression. Dariusz Kozłowski argues that the fiction in architecture wants to be true. He says,

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[1] P. Pięciak, *W świecie fikcji, opery, wspaniałego kłamstwa i betonu* [*In the World of Fiction, Magnificent Lie and Concrete*], interview with Dariusz Kozłowski [in:] Architektura Betonowa, https://architekturabetonowa.pl/aktualnosci/1257/w-swiecie-fikcji-opery-wspanialego-klamstwa-i-betonu (access: 2.5.2020).

> When I look at a building to be a Wankel engine, I don't quite believe it is an accurate image of the engine. I look at Picasso's portraits and see a fictional thing that wants to be real at the same time. If architecture is to be art – by the way, maybe it is not art, maybe it is something completely separate? – at least, if architecture is to be a poetic thing, and we would like it to be a poetic thing, it has this element of fiction. So it is a search for this little bit of poetry in architecture.[2]

As Tomasz Kozłowski claims, a work of art from the post-functionalist era is a certain statement that cannot be considered both false and true. He writes: "The viewer today operates within the scope of aesthetics that dazzle with fictional category. […] It makes the belief in art-architecture justified."[3]

2. METAPHORES OF EXPRESSIONISM ARCHITECTURE

Przemysław Trzeciak divided architectural objects into objects defined by a rational and emotional attitude. The first attitude "is represented by the creators for whom the starting point and goal of designing is a rational and optimal solution of the function. The architect is more of a scientist-technician than an artist."[4] Works created in the circle of an emotional attitude "or in fact, their proportions are overwhelmingly predominant, striking with an unusual form and a huge load of expression. They are always symbolic works."[5]

> The beginnings of modernism created an original language of architecture. A language that was created in opposition to realism, historical trends and art nouveau, in the era of romanticism, the era of electricity, fascination with technology, fast car, machine, ocean liner, the era of questioning the past and faith in a great future that was to come soon. Apart from the significant current of decorative expressionism, this language lasted for decades until the creative possibilities were exhausted, replaced for a while in the period of architectural postmodernism. This architecture needed a metaphor directing the artists' intuition towards expressing forms and giving them meanings.[6]

In the 1960s, freedom of expression and the "art of differentiation and imagination,"[7] were contrasted with the purist aesthetics of the then international style. These were anti-modernist demonstrations by followers of postmodernism, represented by James Stirling, Michael Graves, Riccardo Bofill and Hans Hollein, led by Robert Venturi and Denise Scott-Braun. This trend turned into deconstructivism and expressionism, represented by Frank O. Gehry, Zahe Hadid, Peter Esisenman and Daniel Libeskind. An architectural thing has no front or back, because each facade is equally important. By creating "new"

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[2] *Ibidem.*

[3] T. Kozłowski, *Architektura a sztuka* [*Architecture and Art*], Wydawnictwo PK, Kraków 2018, p. 11.

[4] P. Trzeciak, *Historia, psychika, architektura* [*History, Psyche, Architecture*], PIW, Warszawa 1988, p. 132.

[5] *Ibidem*, p. 169.

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[7] K. Piotrowski, *Perspektywy dla designu przyszłości – od estetyki do anestetyki* [in:] J.S. Wojciechowski, A. Zeidler-Janiszewska (eds.), *Formy estetyzacji przestrzeni publicznej*, Instytut Kultury, Warszawa 1998.

art, the present day aims to imitate the great masters of architecture from all over the world. Canons are no longer relevant to design. However, we see a certain stylistic continuity in the works that are being built. The slow death of deconstructivism creates new aesthetics that refer to works from years ago. It is appropriate to agree with the musicologist and pianist Tomasz Baranowski, who wrote: 'Expressionism is an important trend in the art of the 20th century, arising from the attitude of rebellion, from disagreement with the existing order of things. The artist wishes to express his deepest, most intimate, often extreme experiences.'[8] It is a pretext that helps to justify the viewer or find a solution to complex problems that are set for the author.

"People always compare an object with other known buildings or similar objects, thus creating a metaphor. This phenomenon occurs in greater intensity, the more the building is 'alien.'"[9] Both the mass audience and the recognized indoor ones eagerly used metaphors to define buildings, such as: duck, blocks, bird, box, or Swiss cheese and a cheese grater. There are objects that hide a number of meanings and cultural codes. The Sydney Opera House aroused many associations among the public. During the official opening of the Opera, architecture students presented a comic, showing the object of "mating turtles."[10] Charles Jencks argues that "The more improbable this relationship is, the easier it will be for the viewer. A witty building is one that gives us unusual but convincing associations."[11] Another work which manifests itself in a number of metaphors is the chapel in Le Corbusier's Ronchamp. In Hillel Schocken's drawings, you can read the metaphor of a hand, a duck, a ship or a cap. Jencks strongly criticizes such attitudes. He writes: "As a result of such conduct, poorly chosen metaphors take metaphorical revenge on their authors and give them a kick. Buildings look like metaphors for functions and economics and as such are anathema."[12] The metaphorical message of architecture can be called "masks". Dariusz Kozłowski believes that "Announcing fiction as a game and a great lie as an excuse is the way to create things. Adopting such an idea presupposes that art should be viewed through the hazy pane of awareness that we are watching – the world of art, the artificial world, the world in a mask."[13] Many artists negate the metaphorical message of architecture, focusing on rational aspects and functionality, which is obvious. There are objects that hide a number of meanings, cultural codes, and are saturated with emotions. The research was carried out on the basis of an analysis of the available literature relating to the subject of the work, as well as an analysis of selected photographic documentation.

The phenomenon of the interpenetration of non-geometric forms, with soft or sharp shapes, is manifested in the architecture of expressionism and futurism. The creative path to architecture leads through the prism of the artist's magnificent sketches. In the years

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[8] L. Polony, *Estetyka ekspresjonizmu w muzyce XX wieku; Tomasz Baranowski* [*The Aesthetics of Expressionism in 20th Century Music; Tomasz Baranowski*], https://www.youtube.com/watch?reload=9&v=xQRWlgQBV4c (access: 2.5.2020).

[9] C. Jencks, *Architektura postmodernistyczna* [*The Language of Post-Modern Architecture*], Arkady, Warszawa 1987, p. 40.

[10] *Ibidem.*, p. 43.

[11] *Ibidem.*

[12] *Ibidem*, p. 48.

[13] D. Kozłowski, *The Truth and Lie of Architecture – Defining the Architectural Space*, Thesis of the XIX International Conference of the Chair of Housing and Architectural Compositions, Institute of Architectural Design, Faculty of Architecture, Cracow University of Technology, Cracow 2020.

1914–1917, Erich Mendelsohn published a series of expressive drawings, monumental projects: a crematorium, a railway station, a film studio with fanciful rhythmic elevation patterns, enhanced by the phenomenon of movement and play of tension. In the years 1924–1932, by designing several department stores, he built a completely new language of architecture. Mendelsohn, by introducing a simple geometric block into motion, strengthened expression, dynamism, and sometimes drama. Alexander Serafin, in his book *Geometric Abstraction and Organic Form*, considers E. Mendelsohn to be the main representative of the "emotional movement"[14] in the architecture of the beginning of the 20th century. He writes that: "The dynamism and the 'originality' of the form become the most important elements of E. Mendelsohn's architectural composition. […] The rhythm inspires the architect to introduce an organic form into the composition, instead of geometric abstraction."[15] Bach's music became another pretext for building the form of the Kaufhaus Schocken store in Stuttgart, developed in 1926–1928. Erich Mendelsohn shows the idea of the building in colored sketches, making it easier for the recipient to understand the building and the influence of music on architecture, which he describes as "harmonic and counterpoint guidance in architecture."[16] The aforementioned expressionism can be found in another Mendelsohn's and Serge Chermayeff's object, The De La Warr Pavilion in Bexhill-on-Sea, realized in 1935. The sketches support the reading of the expressionist form of the building as a long rectangular block accentuated by soft non-geometric shapes of glazing of a semi-circular bay window. The writer Hermann Bahr, referring to the combination of various fields of art, claims that "expressionist painting is the music of the eyes."[17]

Przemysław Bigaj wrote about the aspect of originality of the corner house in the building quarter: "The corner of the building has always been a field for experimenting with a solid with a distinguished spatial status, hence there were such architectural accent forms as bay windows, balconies, loggias, etc."[18] The work of art that Mies van der Rohe failed to build was made by Fritz Hoger, who in the years 1922–1924 realized an unusual, expressionist corner situation (Ill. 1). "Intentional, but impossible to implement at the time, the idea of modernity of the skyscraper and architecture was replaced here with an original concept, but embedded in tradition."[19] The clinker-clad Chilehaus protrudes into the sky like a huge, pointed ship's prow, and the facade with 2,800 windows that meet at a very sharp angle at the corner of Pumpen and Niedernstrass is a fine example of brick architecture from the 1920s and one of the first skyscrapers in Hamburg. Due to accentuated vertical elements, curved facades, and the reduced top storeys, the building gives the impression of lightness, despite its enormous

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[14] "The emotional trend can be called a tendency present in the aesthetic thought of the 20th century, based on empiricism. Aesthetics, the basis of which is a creative revelation, is originally derived from Henri Bergson's intuitionism and Edmund Husserl's phenomenology," A. Serafin, *Abstrakcja geometryczna a forma organiczna* [*Geometric Abstraction and Organic Form*], Wydawnictwo Politechniki Łódzkiej, Łódź 2014, p. 80.

[15] *Ibidem*, pp. 93–94.

[16] E. Mendelsohn, *Dynamika i funkcja* [*Dynamics and Function*], Muzeum Architektury, Wrocław 2001, p. 95.

[17] *Ibidem*.

[18] P. Bigaj, *Dom narożny w kwartale zabudowy miejskiej – znak miejsca albo ku formie predestynowanej do oryginalności* [*A Corner House in the Urban District – A Sign of a Place or Towards a Form Predestined for Originality*], Środowisko Mieszkaniowe, 2019, no. 26, p. 28.

[19] E. Mendelsohn, *op. cit.*, p. 79.

size. Huge architecture with a slender, unconventional structure of the monument delights with the detail of clinker facades, which contradicts its size. The building has a reinforced concrete structure and was constructed using 4.8 million dark Oldenburg bricks. Höger used irregularly baked dark red bricks, the appearance of which changed depending on the time of day and the weather, differentiating its perception. The saturation of the rhythm, the homogeneity of the facades and the reinforcement in the corner emphasize the size and importance of the object in a corner situation that cuts through the sky, like a ship on a stormy ocean. The spectacular sharp corner with vertical articulation of the windows, brick pilasters, topped with a magnificent flat roof, and the characteristic structure and divisions, thanks to highly exposed cornices, create a work of art as an example of "ocean lining buildings" – a model of modernity, referring to the mechanized Corbusier buildings. What Tomasz Kozłowski points out when he writes: "The first thing that builds expression is the structure of the form, enhanced by the unusual corner situation. But we also see a great ship sailing out to the observer as if from an advertisement for ocean lines: after all, the ship sails in the era of transatlantic liners."[20]

There are works whose form resembles a "ship," based on curved planes. The Post Office in Rome, designed by Mario Ridolfi, built between 1933 and 1935, is an example of Benito Mussolini's rationalist and fascist architectural period in Italy (Ill. 2). Mario Ridolfi won the first prize in a competition to design a new post office, independent of foreign trade, promoting a self-sufficient economy and severing all trade relations with other European countries. He created a compact body that surrounds Piazza Bologna with a strong symmetrical facade of travertine marble, used in the rationalist period to emphasize abstract language and distinguish the symbolism of public buildings. The object, which seems to be in motion, is a compact, trapezoidal planimetric system whose main facade is a single, curved wall, leveling the corner situation in which the building is located. The selected materials and construction of the building represent the dichotomy of Italian rationalism, between tradition and modernity. The elements characterizing the front elevation are the central stairs and the entrance roof, and at the back there is a curtain wall and two glass-concrete cylinders, hiding two staircases. The tearing of a fragment of the facade from the ground and the floating fragment of the roof bring to mind the metaphor of a ship floating in the sea. The language of postal architecture, which speaks metaphorically with its expression and dynamics, may suggest an era of fascination with the ocean liner, machine and technology. When looking at the extremely poetic architecture of the post office building, one should recall the words of Maria Misiągiewicz, who write that the form "reflects the sophistication of dynamic expression, created by the distortion and setting in motion of a modernist body derived from the geometry of a right angle"[21]. Ridolfi used a very expressive language, close to the baroque style, both in terms of the composition of the building and the materials chosen, creating a building with a clear example of expressionism and undulating Italian rationalism.

Undoubtedly, the world of the expressive language of architecture includes the proposal of the Spanish company AQSO Arquitectos of a multifunctional building, including a hotel, cinema and commercial area, built in 2017 in London (Ill. 3). This concrete architecture is built by the outer shell with regularly spaced "checkerboard" openings,

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[20] *Ibidem*, pp. 80–81.
[21] M. Misiągiewicz, *Architektoniczna geometria* [*Architectural Geometry*], Instytut Projektowania Architektonicznego, Wydział Architektury Politechniki Krakowskiej, Kraków 2005, p. 98.

generating a rational layout, reinforced by a "bow," evoking a ship floating in the turbulent ocean water. The dramaturgy of the building's architecture is created by the twisting of the corner, giving the impression of unreality, and through the corner situation in which it is located, it becomes the beginning, or perhaps the end, of the quarter. The twisted facades of the AQSO hotel contrast with the rationality of the regular articulation of the openings and the sharp corner angle that rises high upwards, surpassing the neighboring houses, creating a language of extraordinary expression. A certain rigor of the simple composition is created by the extraordinary quality of the reinforced concrete facade coating. The hotel's architecture is colorless. It is created only by shades of concrete and the colors of the glass of windows that change during the day and night, through external natural light and artificial lighting inside. Perhaps Juliusz Żórawski wrote about such a sculptural dominant as an architectural form: "there are vague and modest forms, as well as distinct and attractive, and among them those that overwhelm the entire environment with their strength and constitute strong dominants."[22]

3. CONCLUSIONS

Contemporary creativity aims to imitate the great masters of architecture. There is no theory of architecture, canons or styles. There is a certain stylistic continuity, and new aesthetics refer to historical creativity. "Architecture, perhaps more than other arts, needs some kind of motivation: a pretext, justification, theory, idea or ideology justifying the actions of the creator in his own eyes and in the eyes of the audience."[23] As Przemysław Trzeciak claims, the creative attitude "influences the creation of works with a significant load of expression, but they are to some extent subordinated to the function and structure, because the architect aims to create conditions for the implementation of his proposals."[24] The expressionism trend brought a certain language of architecture that needed strong metaphors, directing the intuition of artists towards expressing forms, giving them meanings, creating wonderful works of art. Architectural objects defined by a rational attitude are characterized only by the optimal solution of their function, and the architect plays the role of a scientist-technician rather than an artist. The words of Przemysław Trzeciak, who writes: "Only in the rationalist current do attitudes and objects appear that are not art, because they do not have to be."[25] Because it is expressionism architecture, saturated with emotions, with symbolic content, characterized by dynamism, originality, and the individualism of the creator. Perhaps this wonderful poetics of expressionist architecture will have a significant impact on creating a new quality of the world of architecture for future generations of artists.

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[22] J. Żórawski, *O budowie formy architektonicznej* [*About building an architectural form*], Arkady, Warszawa 1962, p. 33.

[23] D. Kozłowski, *Architektura albo sztuka budowania rzeczy. Credo artystyczne* [*Architecture or the art of building things. Artistic creed*], http://www.dariuszkozlowski.arch.pk.edu.pl/ (access: 2.5.2020).

[24] P. Trzeciak, *op. cit.*, p. 163.

[25] *Ibidem*, p. 184.

Ill. 1. Fritz Hoger, *Chilehaus*, Hamburg, Germany, 1922–1924, http://www.wikipedia.pl/ (access: 2.5.2020)

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THE GREAT PRETENDERS. NEW INCARNATION OF EXPRESSIONIST ARCHITECTURE

WSPANIALI SYMULANCI. NOWE WCIELENIE EKSPRESJONIZMU W ARCHITEKTURZE

A b s t r a c t

This paper is a comparative analysis of form of selected contemporary architecture from the circle of New Expressionism. The point of reference are, among others, works of avant-garde art. New trends in architecture contradict the old dogmas of architecture. Sometimes, form of architecture is unrelated to the structure of the building and doesn't express the function of the building. Iconic buildings designed by the stars of contemporary architecture resemble abstract sculptures, unrealized visions of avant-garde artists or natural forms. Logic, "ethics" and rationality in design are replaced by the fury of almost limitless creativity. Buildings from the circle of expressionism of the 21st century pretend surprisingly well not to look like architecture.

Keywords: avant-garde, expressionism, organic abstraction, contemporary architecture

S t r e s z c z e n i e

Artykuł jest analizą porównawczą formy wybranych dzieł architektury współczesnej z kręgu nowego ekspresjonizmu. Punktem odniesienia są między innymi dzieła sztuki awangardowej. Nowe tendencje w architekturze zaprzeczają dawnym dogmatom architektury. Forma architektoniczna bywa niezwiązana z konstrukcją budynku, nie wyraża też w oczywisty sposób przeznaczenia budowli. Ikoniczne budynki zaprojektowane przez sławy architektury współczesnej przypominają abstrakcyjne rzeźby, niezrealizowane wizje awangardzistów czy formy naturalne. Logikę, „etykę" i racjonalność w projektowaniu zastąpił szał niemal nieograniczonej kreatywności. Budynki-rzeźby z kręgu ekspresjonizmu XXI wieku zaskakująco dobrze udają, że nie są architekturą.

Słowa kluczowe: awangarda, ekspresjonizm, abstrakcja organiczna, architektura współczesna

The dogma linking the architectural form with the logic of the construction, structure and function of a building was present in the architecture of the 20th century for many years. Architects were referring to concepts such as: "truth," "honesty," "integrity," etc. When the high-tech style emerged, architectural form began to be composed of structural elements, installations, pipes and wires. Architecture has reached an extremum in its "honesty." Crossing another border, architects gladly rejected the modernist principles, the decor returned, no longer in the form of details, but the shape of entire buildings. Architects were given complete freedom in shaping the architectural form free from structural and functional constraints. Many of iconic buildings in their form do not reveal any ties to the traditional architecture. Instead, they resemble abstractionist sculptures, unrealized visions of avant-garde artists or

things belonging to the natural world. Contemporary iconic buildings pretend surprisingly well that they are not architecture.

Over a century ago, expressionist architects applied organic shapes to their designs. Buildings they envisioned were supposed to refer to the raw forms of nature, they had curved shapes or forms with sharp edges, irregular shapes and asymmetrical facades. One of the most frequently repeated motifs in expressionist architecture was the form of the crystal. The "crystal" architecture was drawn by: Mies van der Rohe, the Luckhardt brothers, Wenzel Hablik, Hans Scharoun and others. Nowadays, expressive "crystal" forms dominate in the architecture of Daniel Libeskind. The architect explains:

> Crystals are one of the most perfect creations of nature. Their shapes often appear in my designs. I love the fact that they absorb light while reflecting it. They are often seen as complex forms with many faces, but the box is also a crystal, although very simplified. I could talk about crystals for hours. They are a miracle to me.[1]

Libeskind, considered to be a member of deconstructivist movement, creates buildings composed of intersecting blocks, dramatic angles and sharp edges. His architecture is very recognizable and characterized by the domination of expressive form over function.

In 2007, two museums designed by Libeskind's office were opened. One of them was the extension of The Royal Ontario Museum in Toronto. Architect admits that the form was inspired by the crystals he saw among the museum's exhibitions. Libeskind "nailed" three interpenetrating blocks covered with metal cladding onto the historic building. Blocks are twisted as if the ground had collapsed beneath them. The effect of the catastrophe is intensified by the black strips of windows that cut across the building. The whole thing looks like the old museum building was stuck on the top of a piled-up ice floe. It is similar to the view that Caspar David Friedrich captured in the painting *Sea of Ice*. The artist depicted the story of a failed polar expedition in a dramatic and expressive way, he painted the scaled, broken masses of ice covering the sinking ship. Libeskind treated the old museum similarly, it is "drowning" under the pressure of the cold and sharp form of the new building.

Daniel Libeskind also designed the new building of the Denver Art Museum. It stands next to the building designed by Gio Ponti, which was opened in 1971. The Italian architect designed the museum as if it was a modernist stronghold, the high walls are cut here and there with irregularly arranged openings and bay windows. The "fortress of art" is covered with convex glass tiles so the building shimmers with silver reflections. Libeskind alluded to the Ponti building, the new part is covered with titanium panels, and the body is also cut with small, irregularly placed window openings. The building is located in an open space, it can be freely viewed from many sides. This situation encouraged the architect to create an effective form. The museum looks like an expressionist sculpture. Again, the whole thing looks like broken ice, crystals, or mountain boulders dropped in the city center. While in Ontario the crystals from the museum's collection were the inspiration, here the architect referred to the forms of the Rocky Mountains. Both Libeskind's designs resemble the models of the Luckhardt brothers – expressive sculptures resembling mountain ridges, full of sharp spikes and edges. Denver Art Museum is dominated by a huge, slender spike – the prow of the "art spaceship." Here, deconstructivism takes on a neo-futuristic style. However, the impressive

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[1] D. Libeskind, *przełom: przygody w życiu i architekturze*, Wydawnictwa Naukowo-Techniczne, Warszawa 2008, p. 176.

form was created at the expense of functionality, and the museum is criticized for numerous functional deficiencies that hinder the free display of the works of art.

Another Libeskind's "crystal" buildings were erected at the entrance to the historic Keppel Port in Singapore. The complex of residential buildings of various heights was completed in 2011. 1,129 apartments in isolated high-rise buildings offer views of the ocean, Sentosa Islands, and Mount Faber. The complex consists of six towers, 178 and 120 meters high and eleven lower apartment buildings. They form a freely composed group, located among greenery. Buildings have a curved, dynamic form, rising on the shore like giant architectural stalagmites. Shiny, curved towers are finished with slender, transparent peaks, which make the composition even more expressive. Forms are similar to the drawing by Hermann Finsterlin presenting the idea for the Cathedral of Light. Glass towers designed by Libeskind illuminate the bay and sparkle with reflections in the water, being the new Singapore's "cathedral of light."

In 2008, Zaha Hadid's office won the competition for the new building of the port in Antwerp, the second largest port in Europe. The building was to house offices for 500 employees. It was proposed to locate the headquarters in the port, on the island of Mexico, on which there was an over a hundred-year-old fire brigade building. The requirement of the competition was to incorporate the new cubature into the old building, built in the style of Hanseatic residences. The winning concept assumed to build over it, avoiding enclosing the historic building and not to obscure it. A huge block in the shape of a pointed crystal was placed on the old building. The form is hewn – planes of rhombuses, trapeziums and triangles appear in the façade, as in the expressionist paintings. In the gleaming glass surface of the Antwerp building, the reflection of the sky shimmers in shades of blue. The "skin" of the crystal is cut with a mesh of triangular windows, a mosaic of glass of various shades and translucency – from transparent to non-transparent, to optimally regulate the interior lighting. Panes placed at different angles make the shiny body of the building resemble a rough diamond. Architects admit that the concept resulted from three formal assumptions: proposing a vertical direction of expansion was inspired by an unbuilt tower that was to be the dominant feature of the original fire brigade building, the white form of the support and the interior of the building refer to ocean liners, and the crystal form is a direct reference to diamonds, which the city is famous for. In Antwerp, 85 percent of the stones imported from all over the world are polished.

> The façade's ripping quality is generated with flat facets to the south that gradually become more three-dimensional towards the north. This perception of a transparent volume, cut to give the new building its sparkling appearance, reinterprets Antwerp's moniker as the city of diamonds. The new extension appears as a carefully cut form which changes its appearance with the shifting intensity of daylight. Like the ripples on the surface of the water in the surrounding port, the new façade reflects changing light conditions.[2]

The office building, which is 40 meters high, offers a panoramic view of the port and the city, which was one of the most important commercial centers in the world before it suffered from the Second World War. The crystal block ended with a sharp point surprises with dynamism, it is a reminiscent of the famous design of a glass skyscraper Freidrichstrasse by Mies van der Rohe from 1921, which impressed with the expression of the corner and the lightness of

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[2] Port House [in:] Zaha Hadid Architects, www.zaha-hadid.com/architecture/port-house

the transparent block. Zaha Hadid also had in her portfolio designs of modern yachts. In the Antwerp building she draws on the design of modern ships, the white plinth on which lies a glass block, cut by a strip window is a contemporary travesty of marine modernism. It must be admitted that the effect of this compositional mixture is impressive, and the scale and expression of a huge sculptural block hanging over the historic building creates a dramatic impression. The crystal by Zaha Hadid levitates above an old building like a futuristic liner ready to unmoor and leave the port.

The form of the Qatar National Museum, designed by Jean Nouvel, is also supposed to refer to the shape of the crystals. The building, which was opened at the beginning of 2019, consists of interpenetrating discs clad with panels of cream colored concrete. The architect explains that he was inspired by the desert formations found in Qatar.

> The desert rose, a flower-like aggregate of mineral crystals occurring only in arid coastal regions, is the first architectural structure that nature itself creates, through wind, sea spray and sand acting together over millennia. It's surprisingly complex and poetic. Taking the desert rose as a starting point turned out to be a very progressive, not to say utopian, idea. I say 'utopian' because, to construct a building 350 metres long, with its great big inward-curving disks, and its intersections and cantilevered elements – all the things that conjure up a desert rose – we had to meet enormous technical challenges.[3]

The building, which consists of 11 galleries, is planned as a loop that winds for almost 1.5 kilometers. In its center there is the lovingly restored palace of Sheikh Abdullah bin Jassim Al Thani, which since 1975 has been the house of the Qatar National Museum. The new museum is the second significant Nouvel realization in the region, in 2017 the Abu Dhabi Louvre was opened, a building covered with a large dome made of several layers of aluminum panels in the shape of cut stars. Transparent roof let the sun's rays through, creating an unprecedented play of light and shadow inside. Among many projects designed by eminent architects in the Middle East, those designed by Nouvel should be considered as the most spectacular.

Expressionist buildings that were created in Hermann Finsterlin's imagination contradicted architectural tradition and were free from constraints of basic construction problems. Finsterlin in 1919, postulated the creation of organic forms in architecture:

> We, the inhabitants of the Earth, can see manifestations of refined forces only on a few small objects that have become forms of nature […] Think of huge Inca sculptures, monolithic temples of India, the possibilities of iron, artificial stone, large fusions of glass and light building materials that are currently in use. Consequently, there must be many means that will produce forms as rich as those found in nature.[4]

The organic fantasies of Finsterlin began to be realized in architecture with the eccentric houses of Antti Lovag, Vittorio Giorgini, Antfarm or in exhibition pavilions which were ahead of everyday architectural reality. In the world of public buildings, biomorphic forms appeared at the end of the 20th century in the projects of: Peter Cook, Frank Gehry or Jan Kaplický.

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[3] J. Nouvel, *Architectural and Museographical Design: The Desert Rose*, www.jeannouvel.com/en/projects/musee-national-du-qatar

[4] H. Finsterlin, *Berchtesgaden*, [from:] G. Celant, *Architecture & Arts 1900/2004: A Century of Creative Projects in Building, Design, Cinema, Painting, Photography, and Sculpture*, Skira, Milan 2005 pp. 226–227.

One of the icons of blobitecture is The Kunsthaus in Graz. In 2003, Graz was the European "capital of culture," and for this occasion the authorities decided to build a new museum of contemporary art. After two competitions, it was decided to realize bold concept of Peter Cook and Colin Fournier. Peter Cook, the founder of Archigram, referred to the concepts of a living, moving city – the building in Graz was "brought to life" through a multimedia cover. Among the tenement houses in the city center lies a slimy, shiny and flickering "architectural worm." It looks like a form of different civilization. The facade panels hide 900 lamps illuminating at night the body of this electro-architectural symbiote. "The building got many names, maybe nicknames. Some see it as a snail, others as an udder of a cow, and others call it a Friendly Stranger, which is a reaction to its unusual form."[5] The organic form of the museum resembles a blob shape of the dining building, designed in 1975 by Günter Domenig, located in the courtyard of the Franciscan Sisters' school in Graz. Thanks to this building and other outstanding architectural realizations, such as Mur Island, Graz has built an image of a city promoting modern design and architecture.

Jan Kaplický attempted to build one of the impossible works of Finsterlin by designing the building of the National Library for Prague. Rendering shows a shiny gold blob covered with spots of purple glazing, something like a cosmic octopus or other creature from science-fiction movies. The form is reminiscent of Finsterlin's *Konzerthaus*, a design that looks like a wavy mountain topped with a purple growth. During his career Kaplický realized several spectacular buildings belonging to the blobitecture trend. Despite that, the library in Prague turned out to be too extravagant and like Finsterlin's visions, remained an unrealized project of an extravagant visionary.

In 2001, architects from Coop Himmelb(l)au won the competition for the Musée des Confluences in Lyon – an interdisciplinary museum combining elements of anthropology, ethnology and natural sciences. The name of the museum refers to the confluence of rivers – the building is located on a peninsula, where the Rhone meets the Saone. The project is a part of the revitalization of this city's area. Together with the building, the architects designed the park and the coastal promenades. There are terraces on the roof of the museum overlooking both rivers. Musée des Confluences has a complicated shape, it resembles a drawing by Hermann Finsterlin depicting a fancy city forming something like a snow-covered ridge of an alpine massif. The museum partially stands on large "legs," creating arched spaces that look like coastal caves created by water erosion. The main body of the museum, without windows, houses three levels of exhibition halls, architects call it "the cloud." The entrance area of the building, called "crystal," is a large glass atrium that collapses like a black hole. The great funnel, around which the stairs wind, has been called the "gravity well." The museum looks like a form of matter right after the Big Bang, and it refers well to the exhibition inside, which tells the history of the world from its birth. Wolf D. Prix explains that deconstructed forms, lack of center, grid and axis bring the museum space closer to Einstein's theory of relativity. The decomposed form of the museum is close to the ideas presented by Austrian architects in a provocative manifesto:

> Architecture has to be cavernous, fiery, smooth, hard, angular, brutal, round, delicate, colorful, obscene, lustful, dreamy, attracting, repelling, wet, dry, and throbbing. Alive or dead. If cold, then cold as a block of ice. If hot, then hot as a blazing wing. Architecture must blaze.[6]

[5] T. Kozłowski, *Architektura a sztuka*, Wydawnictwo PK, Kraków 2018, p. 185.
[6] C. Himmelb(l)au, *Architektura musi płonąć*, 1980 [in:] C. Jencks, K. Kropf (eds.), *Teorie i manifesty architektury współczesnej*, Grupa Sztuka Architektury, Warszawa 2013 p. 313.

The architecture of the building met with criticism, it was described as "exhibitionist." Prix defends the concept by explaining a complex form:

> if we want to have an optimistic society that has the capability to solve complex problems with complex solutions, we have to live in this complex society. meaning: if you are living in boring spaces your brain doesn't work in a creative way. if you only think in architectural terms, only architecture will come out. we were fascinated by the spacesuit, the space helmet, by the formula 1 racing car, by the music – the tension of the riffs of Keith Richards is a role model for our structures sometimes.[7]

The architect's words, implying social effects from the shape of architecture, sound similar to the futurist manifesto.

With the expansion of expressive architecture in the 20th century, from the Sydney Opera House to the Guggenheim Museum in Bilbao, a new semiotic category emerged, which Charles Jencks calls "iconic" architecture.[8] The shape of the iconic building does not have to relate to the function, it aims to create something extraordinary, interesting, recognizable, memorable, and at the same time reaching a wide audience. Architecture has become an element of marketing, architects are required to create a spectacular building that is to gain immediate fame. The architectural form is to be a unique, self-referential sign. The requirement for contemporary buildings to be iconic and their scale make the architectural works even more spectacular. New design and construction possibilities overcome old limitations and enable the construction of the most abstract shapes. The canons of styles were replaced by creativity and the search for novelty. Bold, sculptural forms dominated the architectural world and media.

> Robert Venturi's slogan *all right*, announced in Complexity and Contradiction in Architecture (1966), has come true on a larger scale than the originator intended. […] The space of modern architecture is simultaneously constructed and deconstructed, unexpected neighborhoods of forms occur in it, metaphors become literal, fictions enter reality.[9]

Contemporary architecture is formalistic, it does not speak a common language, but uses means and forms well known from the history of architecture and sculpture. In the case of new, expressive architecture, form is the most important aspect, many elements of the building are created for the sake of form, architecture becomes close to the abstract art. The goal of the contemporary architecture is to create a surprising architectural form, just as it was in art in the times of the Great Avant-garde. The new expressive sculptural buildings have their source in the dismantling of the language of classical architecture, initiated at the beginning of the 20th century. Architects derive from the heritage of avant-garde art and utopian "paper architecture". In the hundred years since the beginning of the avant-garde, tremendous progress has been made and some futuristic, utopian visions of avant-garde architects, updated to the technical realities of the new era, came into reality. Among other trends, biomorphic and neo-expressionist architecture arose: buildings in the shape of blobs, crystals, and organic forms imitating nature. Although, the vast majority of the emerging built environment is still "conventional" architecture, these few exceptions send the observer to the extraordinary world of infinite possibilities offered by the imagination of architects and artists.

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[7] P. Stevens, *Wolf D. Prix explains his design of lyon's musée des confluences* [in:] designboom, https://www.designboom.com/architecture/coop-himmelblau-musee-des-confluences-wolf-d-prix-interview-video-spirit-of-space-12–22–2015 (access: 22.12.2015)

[8] C. Jencks, *The iconic building*, Rizzoli, New York 2005, p. 7.

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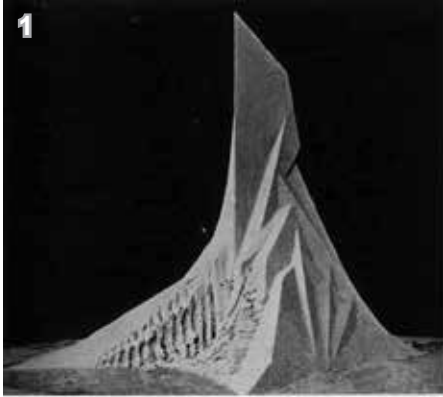
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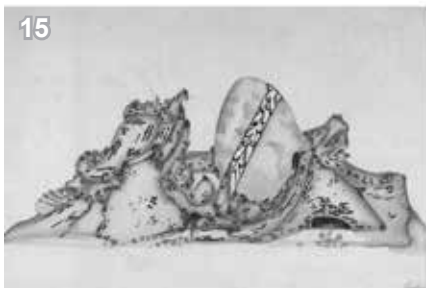
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NON-REFERENTIAL ARCHITECTURE AS A WAY OF PRESENTING THE TRUTH ABOUT THE BUIDLING

ARCHITEKTURA NIEREFERENCYJNA JAKO DROGA DO PRZEDSTAWIENIA PRAWDY O BUDYNKU

A b s t r a c t

The article is about the non-referential architecture – a way of creating truth, not only about the buildings and the ideas but also about the current times. The seven rules, which, according to Valerio Olgiati, should be the principles for the designers, are deeply analysed. The Author gives historical and current examples depicting each rule separately to check how innovative is the Swiss architect's approach.

Keywords: non-referential architecture, truth, modernity, Olgiati

S t r e s z c z e n i e

Tematem artykułu jest architektura niereferencyjna jako sposób na kreowanie prawdy nie tylko o samych budynkach i ich ideach, ale również o czasach współczesnych. Analizie poddaje się 7 zasad w duchu których, według Valerio Olgiatiego, powinno się obecnie projektować. Autor podaje historyczne oraz współczesne przykłady obrazujące każdą z zasad z osobna, by sprawdzić na ile nowatorskie jest podejście szwajcarskiego architekta.

Słowa kluczowe: architektura niereferencyjna, prawda, współczesność, Olgiati

1. THE TRUTH ABOUT MODERN ARCHITECTURE

Apart from "architecture of spectacle," which has been described by Tom Dykchoff and "junkspace" which is Rem Koolhaas's object of interest, it is possible to find different approach for designing in current times. It is represented by the works of many Swiss architects such as Peter Zumthor and Valerio Olgiati. These architects concentrate on creating *milieu* in their buildings which is "the cultural climate, defining atmosphere, or physical location in which a person lives or in which events occur."[1] (Ill. 1) This architecture's features were described in *Non-Referential Architecture*[2] written by Valerio Olgiati and Markus Breitschmid. The authors claim that the non-referential architecture is the only correct way

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[1] *Milieu* [in:] WinEveryGame, https://www.wineverygame.com/words/milieu.html?fbclid=IwAR0aVz RigIPLqe7eChr6KhDtx11h_AyivAUO_xP4ft1gwM7NNfPsuXLpouk (access: 5.5.2020).

[2] M. Breitschmid, V. Olgiati, *Non-Referential Architecture*, Park Books, Zurich 2019.

Ill. 1.   The Interior of the Kolumba Museum, arch. Peter Zumthor, source: author's photo

of designing the buildings in the times of globalisation, mass media influence, flattening of the cultural borders in the world and lack of ideology. These aspects have always been very influential for architecture. The Non-Referential Architecture is the answer for the lack

of precise style in current times. This is a designing way which can be used by the author to present the truth about their idea for the building. This truth should consist of the seven principles of the non-referential architecture: experience of space, oneness, newness, construction, contradiction, order and sensemaking.

The reference has been described by the Oxford dictionary as: "the action of mentioning or alluding to something."[3] Olgiati, creating the antithesis of this definition, emphasises that his forms do not relate to any historical style, political ideology or even the surrounding which always related to architecture. These forms must be a pure transformation of the innovative idea for the building.

2. THE 7 RULES OF THE NON-REFERENTIAL ARCHITECTURE

2.1 EXPERIENCE OF SPACE

According to Edward Husserl and Maurice Merleau Ponty's phenomenology of the perception, the experience of space, our impressions and emotions are the product of the mind and the sensibility of the perceiver. Olgiati denies this theory and claims that the way we experience the space is created by the architect from the beginning of the design process. "What is important to realize for architects who design buildings is that for a person to be able to have such a distinct objective experience of space, it is necessary for the architect to create an experience of space with intention."[4] The author does not concentrate only on the internal spatial andfunctional structure. He emphasises that our first contact with the building – with its external structure, should be a conscious effect of the designer's thought and a signal which a form sends to the perceiver. Moreover, the moment when the observer starts moving through the building should be a starting point of a sensual experience. Olgiati compares the whole time which a person spends in the building, to the perfectly composed symphony in which every element is important and is the part of the holistic vision of the architect.

It is worth to mention that Olgiati is not the first architect who concentrates so much on the experience of space. The idea of Villa Savoye in Poissy, designed by Le Corbusier, is based on the similar ideological rules. The architect even prepared a scheme how a visitor should move in the building and experience it. On the other hand, Valerio Olgiati rejects modern ideology which wanted to impose on the perceiver the way which he should move in the building. According to Olgiati's idea, this way should be felt subconsciously by the visitor and there is no need for the additional guides.

2.2 ONENESS

According to Olgiati, oneness, in architecture and the realised buildings, is deeply connected with the designing process and the creation of space. These are the borders, in which the whole form, the exterior and interior, can be set within one idea. This is architect's one and precise proposition for the answer for the designing problem. Swiss architect mentions two

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[3] *Reference* [in:] Lexico, https://www.lexico.com/en/definition/reference (access: 8.5.2020).
[4] M. Breitschmid, V. Olgiati, *op. cit.*, p. 58.

ways which can be taken to design a building. The first one – the designing by division, is the only correct way which should be taken by the architect creating non-referential architecture. It is based on choosing the general borders for the design and putting all the needed functions and spaces in it, creating an abstract, non-precise form. Later, dividing this form, we can get more and more precise scheme of the building. The form starts to get its shape and finally we can reach the stage of solving very precise details of the design. The other method, called designing by adding, is, according to Olgaiti, wrong one. The process is opposite to the method of dividing. The architect starts designing from the void and adds all the needed functions and spaces within the building reaching at the moment the peak of the composition which can be acknowledged as finished. The most important disadvantage of this designing way is the lack of the borders. Adding another forms, the designer can reach a chaos and the composition, apparently finished, may occur to be a worthless mass consisting of accidentally added elements "[…] the exterior and interior spaces of buildings are to 'an architecture of dividing.' This is contrary to buildings whose spaces are the result of additions of geometrical shapes. It is impossible to create oneness through and additive-compositional mode. In other words: a whole cannot be made out of parts."[5]

Valerio Olgiati also mentions that designing: the different heights of the floors, different levels of the ceilings or different levels of the floors interfere the perception of the building. On the other hand, analysing the Kolumba Museum, designed by Peter Zumthor, there is no doubt that the author had a very precise and clear idea for the building. Different heights of the floors, which are visible both in the external and the internal structure, do not interfere the perception but enrich its structure.

2.3 NEWNESS

Newness, in non-referential architecture, is not only a rejection of responding to the historical architectural styles. Nor is it a manifestation of the 21st century technological possibilities. Newness is deeply connected with the current times, with the epoch in which all the ideological attitudes that always influenced architecture are not actual. The buildings need to be designed for the visitors and perceivers, they do not need to be the part of the wider context. They must initiate the dialogue with the visitor, and their spaces are to be precisely designed spatiotemporal course with the observer in its centre. Newness is a hard to define aspect of architecture. The architect must face it personally. The designer is obliged to judge whether their building possesses the aspect of newness and whether the current times can face it. Olgiati mentions two architects whose buildings are nowadays acknowledged as innovative but the opinions about them were extremely different in the times when they have been realised.

> Gaudi's architecture was considered bizarre at the time when he prouced his work. In contrast, despite all the discussions about the merit of Gehry's architecture, his work has never been labeled as naive and bizarre nor was it, for that matter, labeled as particularly fashionable. Instead, Gehry's architecture has always been taken as a serious contribution and his work is understood as significant for society.[6]

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[5] *Ibidem*, p. 72.
[6] *Ibidem*, p. 90.

Newness is connected with the times of realisation. The same relates to the aspect of beauty.

> Anda Rotenberg, the author of the books, critic and the historian of the art, claims that the beauty requires an understanding, assimilation and generalisation. Something that has not been widely generalised is not understood as beautiful. The generalisation means that the new and avant-garde masterpiece entered the canon of beauty.[7]

Analysing Antonio Gaudi's architecture nowadays, majority of people think that it is not only beautiful but also very innovative despite the fact that it was perceived as bizarre in the times of realisation.

2.4 CONSTRUCTION

The principle of the construction means choosing the most appropriate building material. However, it does not mean that a designer must use only one material in the whole building. The rule needs to be applied only for the construction elements and they can be supplemented with additional materials. The choice of the construction material needs to be made by the architect and it should be adapted to the specificity of the object.

> For example, concrete has the attribute of being a 'casted material.' Thus, it would not make sense to cast in concrete a building whose idea requires a modular (composited) form. On the other hand, it is very nature of brick that it always results in something modular, because a brick is a small, typically rectangular module. For example, it is nonsensical to build an irregularly undulating shape in masonry.[8]

What is more, Olgiati describes one more aspect of the construction in the non-referential architecture. However, it requires a knowledge of structural engineering and building mechanics from the architect. The construction of the building should always be designed by the architect, not by the civil engineer. The structural shapes and the forces in the buildings are inevitable elements of the architecture and must be integrated with it. Olgiati claims that the role of the civil engineer is downgraded and they only need to calculate the dimensions of the construction elements. Their locations should be chosen by the architect.

The history of architecture shows that the division between the role of the architect and the engineer was not always so clear as it is nowadays. Vitruvius was not only an architect but also a civil engineer. He also had a knowledge about planning of the cities and constructed war machines. However, we can find notable architects who were and are able to possess both architectural and engineering knowledge in the 20th and 21st centuries. The buildings designed by Pier Luigi Nervi and Santiago Calatrava are deeply connected with the Olgiati's principle of construction. These are forms that integrate architecture with civil engineering knowledge. They are sculptural forms in which the flows of the forces are clearly visible. These are the buildings made of the structural grids.

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[7] N. Juzwa, *Piękno w architekturze* [in:] *Defining the architectural space. Tradition and modernity in architecture = Definiowanie przestrzeni architektonicznej. Tradycja i nowoczesność architektury*, vol. 1, Oficyna Wydawnicza ATUT, Wrocław 2019, pp. 65–71.

[8] M. Breitschmid, V. Olgiati, *op. cit.*, p. 99.

2.5 CONTRADICTION

Contradiction, as a compositional strategy being an integral part of a building, gives it meaning. It is not a simple creation of an opposition to the structure of the building or an attempt to fulfil it with an element which is a contrast. Contradiction is a subtle manifestation of the architect's creativity and his idea for the dialogue with the visitor. Olgiati tries to present this principle basing on a simple example. Entering the building and seeing the staircase, we realise that there is a space above it. The human mind does it automatically and we do not even realise this process. Let us imagine that after entering the building we see two pairs of stairs, one by one (Ill. 2). In this situation, our mind starts to analyse why there are these two pairs of stairs, which one we shall choose to get to the next floor or even whether they end at the same floor. The process of analysing is conscious. The simple design made a visitor start to think and correspond with the building. The example of the contradiction in the building presents how the unconscious thinking may evolve into the deep analysis. Olgiati connects the contradiction with the beauty hidden in the building, writing about Kant's three phases of analysis: the sensorial stimulation, the stimulus developing human's imagination and illustrating of the thoughts. Following the German philosopher, the architect claims that the ideal contradiction in the building is based on the dialogue with the visitor, stimulating their imagination and illustrating their thoughts.

Ill. 2.   The Staircase in the Visiting Center Swiss National Parc, arch. Valerio Olgiati, source: https://divisare.com/projects/222882-valerio-olgiati-visiting-center-swiss-national-parc, access: 5.5.2020

The contradictory elements can be easily found in a lot of deconstructivists' realisations, especially in the buildings designed by Coop Himmelb(l)au. The intensity of many different

elements, staircases, landings, footlights and terraces forces a visitor to analyse which way should they take, or even start to think whether some elements have been designed for any communicative purpose or are just the decorative elements designed to admire. The curved form in the centre of the Museum of Contemporary Art and Planning Exhibition in Shenzen, which seems to be a sculpture, is the communicative sector hiding the lifts and staircases (Ill. 3).

Ill. 3.   The Interior of the Museum of Contemporary Art & Planning Exhibition, source: https://www.archdaily.com/800332/museum-of-contemporary-art-and-planning-exhibition-coop-himmelb-l-au, access: 5.5.2020

2.6 ORDER

Architectonic order links the idea for a building with the built architectonic actuality. Hence, the architectonic order is how the idea is first conveyed into form by means of building elements: the formation of walls, floors, roof, openings, and columns amongst each other within its ordering system. These primary elements make the order present. In other words, the idea for a building is first articulated by an ordering system.[9]

Olgiati presents two designing methods which can be chosen by the architects: inductive and deductive. The first one is based on the knowledge from the experiments. This method is not characteristic for the non-referential architecture. The second one is a manifestation of the

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[9] *Ibidem*, p. 114.

idea and requires choosing the rules by the designer. These principles must be assumed by the designer as true and the conclusions must be driven from them. The object, designed using an inductive method, is the effect of the chaos and may be based on the false principles. The deductive method is the only one that is able to set the design in the precise borders and realise the non-referential object. Olgiati presents this method basing on an example of a watch. It can be beautiful, but the idea of joining a human with a time fulfils the masterpiece.

The deductive method's idea bases on the German Idealism philosophy which "[…] gives even more power to the mind. Not only is certain knowledge of the world to be found in the mind, they claimed, it must also originate in the mind. The mind for the Idealists creates the world."[10] According to Olgiati, the mind creates the building. Architects have to find the truth in their minds to set the rules. Basing on them, they will be able to start the design process.

2.7 SENSEMAKING

Sensemaking is included in the answer for the question – why was the building raised? Fulfilling other six principles of non-referential architecture does not make the building sensemaking. What is more, it does not assign the form to the non-referential architecture. Moreover, it is not about the beauty or functionality of the object. It is important to notice that, according to Olgiati, we all live in the non-referential world. The cities are more and more similar to each other. Despite completely different culture all over the world, we can find similar buildings, similar shops, similar restaurants everywhere. Accepting this reality, sensemaking of the building becomes more and more important because it makes architect's work valuable. The roof of a typical house might be just a shelter providing physical comfort or may become, in a metaphysical sense, a shelter for the souls, human's asylum.

Sensemaking was always connected with architecture. Designers used to work for Gods, to present the majesty of the masters, to present a technological progress and even to demonstrate political ideologies. These used to be the ideas that let the architects know why they worked. It is worth to notice that Olgiati claims that there is a lack of such ideas and ideologies nowadays. We became the hostages of the consumerism and the designed buildings are raised for one purpose – to earn money.

3. THE TRUTH ABOUT THE NON-REFERENTIAL ARCHITECTURE

Valerio Olgiati, using seven principles of the non-referential architecture, presents how architects may show the truth not only about their buildings but also about the current times. However, each rule is not an innovative idea of the architect but an aspect that can be found in the historical and current periods. On the other hand, Swiss designer is the first person who gathered all these principles in one place, giving architects a designing method in non-referential times. Precise analysis of the elements of the building, from the idea to the details, gives an opportunity to set the design in the borders.

What is more, Olgiati ennobles the role of the architect-creator, denying a modern model of designing in the team. He believes in the prophetic mission of architecture which can be

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[10] M. Gelernter, *Sources of Architectural Form a Critical History of Western Design Theory*, Manchester University Press, Manchester, 1995, p. 33.

realised only by the mind of one person who is the head of the design. It is an ideological return to the 20th-century modernism ideas.

Despite the will to start a dialogue with the visitor of the building, non-referential architecture requires some involvement and analysis. Olgiati, using: the experience of space, oneness, newness, construction, contradiction, order and sensemaking, tries to simplify it for the perceiver. His designs are the holistic forms where every element is inevitable and each one is the transformation of the architect's idea. It is the manifestation of architect's intelligence. Following Olgiati: "I am convinced that today it is still possible and indeed necessary to base designs on ideas, and to create buildings that are capable of contributing to the cultural intelligence of our time."[11] On the other hand, we should think whether this is the only proper way that should be taken by the 21st-century architects. Would we still have time for ourselves if you we were surrounded by the challenging and demanding buildings?

Designing the buildings regardless of the surroundings and the context is also questionable. Valerio Olgiati purposely presented his mock-ups without surroundings at the exhibition at the Swiss Federal Institute of Technology (ETH) in 2008 (Ill. 4). This is the manifestation of the architect's claim that the building and the idea are the most important. The context is less important or even worthless. It is worth to notice that similar ideology may be represented by the majority of 21st-century architects. These designers, described by Olgiati, Koolhaas and Dyckhoff, could cause the disappearance of the differences in the world cultures and the buildings.

Ill. 4.   Photo from the Valerio Olgiati's Exhibition at ETH Zurich, 2008., source: V. Olgiati, A Lecture by Valerio Olgiati, Birkhauser, Basel, 2011

[11] V. Olgiati, *A Lecture by Valerio Olgiati*, Birkhauser, Basel, 2011, p. 2.

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