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HIDDEN ASPECTS OF MODERN AVANT-GARDE OR HOW TO CONNECT DOTS

UKRYTE ASPEKTY WSPÓŁCZESNEJ AWANGARDY CZYLI JAK ŁĄCZYĆ KROPKI

Abstract

Both social and cultural changes as well as experiences gained in the First World War (egalitarianism of mass consciousness and access to advanced technologies, emancipation) gave rise to aesthetic and social radicalism of avant-garde architecture. The war experiences brought about a total change in the perception of architecture and overthrew a multifaceted approach to instil a non-negotiable and strictly purpose-driven style of designing. Attempts to solve complex problems via arbitrary social and design decisions resulted in spectacular failures of modern architecture and discouraged both architects and users from undertaking experiments. At present, it is hard to identify an avant-garde piece of work and to define its purpose. It is not the building form that is the representation of avant-garde but the very process of design and use. The term radicalism can be understood as a process of connecting people with places, people with other people, individuals with a community and architecture with nature. Provocative grandioseness of architecture gave way to a dense network of hidden interconnections.

Keywords: network of interconnections, co-habitation, fifth elevation, naturalised structures

Streszczenie

Radykalizm estetyczny i społeczny awangardy architektonicznej był wynikiem nie tylko rozwoju kulturalno-społecznego, lecz także doświadczeń pierwszej wojny światowej (masowy egalitaryzm i dostęp do zaawansowanej techniki, emancypacja). Doświadczenia te spowodowały całkowitą zmianę myślenia o architekturze z wielowartościowego na ukierunkowany na osiągnięcie celu w bezpośredni, nienegocjacyjny sposób. Rozwiązywanie złożonych problemów za pomocą arbitralnych decyzji projektowych i społecznych doprowadziło do spektakularnych klęsk architektury modernizmu i zniechęciło do eksperymentów zarówno twórców, jak i użytkowników architektury. Współcześnie równie trudno wskazać dzieło awangardowe, jak i określić cel jego powstania. Awangardowość przejawia się nie w formie budynku, lecz w procesie jego projektowania i użytkowania. Radykalizm polega na wzajemnym łączeniu ludzi z miejscami, ludzi z ludźmi, jednostki ze wspólnotą, architektury z naturą. Wyzywająca spektakularność została zastąpiona wielowartościową siecią ukrytych połączeń.

Słowa kluczowe: sieć powiązań, współzamieszkiwanie, piąta elewacja, struktury naturalizowane

1. INTRODUCTION – CHANGE OF PERSPECTIVE

Discussions on avant-garde art and architecture will typically start with a reference to a French military phrase ‘advance guard’, first used in the context of art by Henri de Saint-Simon. Today, this vision of artists marching on the front line, like priests *proclaiming their*

ideas by engraving them in marble or drawing them on canvas in order to exert positive control over society, evokes pity rather than anger. The people living in the 19th and 20th centuries have seen, experienced and outlived the ephemeral existence of avant-garde trends in art, their embedment in atrocious meta-ideologies and their absolute decline. What we know for certain though is that avant-garde artists, theoreticians and the majority of their audience did adhere to the idea of 'true art' being avant-garde, i.e. moving fast forward, without any backward reflections on the consequences. From this perspective, two events of long temporal distance gain particular importance, especially that both are characterised with its global nature and impact on hundreds of millions of people.

The first of the said events was the new perception of the world as a geographical and spatial whole. Expeditions undertaken at the beginning of the 19th century explored the last unexplored places on earth, identified the overall shape of our planet lands, expanded the range of world images and popularised them by means of new technological inventions: photography and film¹. The invention of the balloon, followed by the plane, enabled people to take bird eye view pictures and to see the city and landscapes from a different perspective. An observer was pulled out from his/her position of the contextual built environment – place felt with senses and measured with steps *Flâneur position* and was transported into isotropic space sensed only with vision. Human field of vision expanded to an almost divine perspective, this, on the one hand, enabled people to see much larger expanses of space (landscapes), and on the other hand, deprived them from feeling the expanse with senses other than sight².

This way of perception of a city and landscape – enlarged to encompass an overall picture of the built environment, however, reduced to its visual aspect – became a perfect tool of planning and designing in the era of rapid industrialisation-driven urbanisation that transformed entire regions.

The First World War also played an equally important role for the avant-garde movement. The war was a collective experience of the millions that took part in the far from heroic but brutal process of spacial transformation of vast areas, and that collectively participated in a new dictatorial organisation of functions with the use of technologies to directly attain the top-imposed goals.

This autocratic 'modus operandi' imposed upon millions of the war participants exerted a significant impact on the further development of space planning and designing. It was, yet another unobserved in time, effect of the First World War. Post-war works of artists and architects (in particular of the latter) unfortunately resembled prior planned stages of an attack on the existing status quo. An order from a superior replaced negotiations and consensus,

¹ The process of going beyond the human field of vision started as early as in the 16th century when the microscope was invented (around 1590), followed by the telescope (around 1609). This led to the discovery of micro-organisms in a drop of water and craters on the moon. This scale enlargement of perceived space made Blais Pascal realise that man lived somewhere between the world of invisible atoms and cosmic space encompassed within *infinite universe*.

² In the 1920s and 1930s, many designers and urban planners could experience flying, and their fascination with planes becomes apparent in the drawings of the period. Pictures of balloons, airships and planes were featured in designs of of H. Poelzig, F.L. Wright, Russian constructivists (M. Maloremov and W. Andreiev) and Le Corbusier, who wrote: *The flight of a plane provides a spectacle with a lesson – a Conceptual Representation: exploring the layout of the built environment philosophy. [...] The non-professional who flies (and so whose mind is empty) becomes meditative: he can take refuge only in himself and in his own works. But once he had come down to earth his aims and determinations have found a new scale.* See: Le Corbusier, *Aircraft. The new Vision*, The Studio, New York–London 1935.

a manifesto replaced a treaty. As a result, the *only true* trends in art and architecture were created, which often later formed integral parts of the fostering them totalitarian systems.

Defeating an opponent (whoever or whatever it might be) justified any acts, even if these entailed dire consequences. “Miserable shacks monotonously spread over many miles”³ were to be wiped out by new urban planning and architecture introduced via “unrestrained violent revolution which will demolish bridges linking us with the past”⁴. The revolution was to be subjected to technological rationality and one-sidedly perceived psychology of space (chaotically winding *donkey path trails* juxtaposed to *human roads* leading directly to the destination). Such rationality, combined with engineering, was supposed to evoke *lyricism*, while operations of technology – stimulate the *creation of poetry*⁵.

2. AVANT-GARDE GASLIGHTING

In the 1940s and 1950s, a Utopian strive of architects to create *citta ideale* became a political program, subjected to the aforementioned prevailing *modus operandi*, and shaped partially by the effects of the war waged by Cubism. The program, however, accepted the division of the world after the Second World War. Ideal cities, like the American Richland, that dictated the living standards, were originally created as military industrial complexes (inclusive of military research) and erected by profit-driven private companies⁶. There was strict social hierarchy within a community that populated such cities, in which know-how and education as well as planning and rules played an important role, which effectively suppressed any doubts or fears. Even if these concerned such important issues as human relations or environmental impact. Moreover, traditional architecture faced pressure similar to gaslighting

³ Henry W. Nevinson, quoted after: Eksteins, 1996, p. 301.

⁴ Le Corbusier, 2015, p. 29.

⁵ Controversial polemics of Le Corbusier often disregarded the core roots of phenomena or their origins. According to him, baron Haussmann’s achievements in *fighting chaos* in Paris were *praiseworthy*. Whereas ripping the downtown area of Paris and driving boulevards through the city’s historic heart stemmed from military reasons (street fights during the Paris Commune) rather than from any urban planning or aesthetic reasons. The British, who earlier were involved in the Indian Rebellion (1857), were more direct. Here is what R. Napier wrote: *Difficulties may be largely reduced by setting up a sufficient number of military outposts [...] driving wide roads radiating through the city [...] so that troops would move efficiently and quickly to any destination [...]. Entire suburbs and districts [...] that could pose any obstacles to the army efficient movement [...] should be ripped off from the earth surface [...] As regards [new] streets [...] they are absolutely necessary*. [quoted after: Ferguson, 2013, pp. 219–220] Napier’s “modernisation” of Lucknow in India resulted in the demolition of about two thirds of the old town and profanation of the main mosque by its conversion into temporary military barracks.

⁶ Engineering and construction technology (including mass production of prefabricated components) enabled people to convert natural landscape into large housing estates in just a dozen of months. William J. Levitt, founder of Levittown, gained experience in mass produced housing development by working as an engineer during the construction of Richland (the so-called *atomic city*). Urban planning of his suburbs was subordinated to the security of the inhabitants (mainly high-class specialists), whereas the architecture was supported with an egalitarian system of economic benefits; both aimed to create permanent bonds with the place. Omnipresent control and (racial) segregation, multiple lane roads allowing quick escape, low intensity of development, easy access to services, including education, a centrally located shopping mall, intended to serve as a fallout shelter, dictated trends in designing housing estates all around the world.

from avant-garde architects and architectural critics who waged combat on any references to historical forms. Anything related to historical values was undermined and depreciated, as a result many creators/artists, and above all users of architecture, felt disoriented and lost. Having analysed the trends, Torbjörn Elensky wrote as follows: “man thinks that his new ideas will solve all the problems. The Old World gets in his way and thus, must disappear – the quicker, the better – so that the New World could replace it and prosper”⁷. In view of objective, though overblown and exaggerated, defects of historical architecture and clearly crystallising imperfections of modern architecture, it seemed the easiest to go for even more avant-garde solutions, to develop the expression of form just for pure expression thereof and to invent newer and newer architecture on weekly basis. Whereas the issue of form is just one of many problems and the more complex the work is, the number of problems increases, just to name those pertaining to the building itself, its users often having contradictory needs or relations with the existing but changing environment. So many variables (usually too many) can possibly be taken into account in a design process provided that the process is spread in time, flexible and additionally provided with instruments of negotiations and user participation. Avant-garde viewed all the above-named factors of a good design process as obstacles to its autocratic development implemented through dictatorial methods. This forceful attraction to new technologies totally disregarded any random elements, in particular human non-measurable factors. What’s more, it got rid of procedures and shortened time needed for any critical analyses of construction impact on the surrounding environment. Avant-garde fell into temptation of breaking free of any restrictions posed by a ‘jungle’ of variables by simply ignoring them, by preferring uniform and deviation restricting forms over those that were complex and open to variations. A question, thus, arises whether modern architecture can be defined as avant-garde? If it can, is it then needed?

An answer to the first question is ambiguous. Avant-garde, formed at the beginning of the 20th century and developed in the 1950s and the 1960s, aspired to overthrow the traditional aesthetic and social order. New art, in this architecture, and spectacular historical events that e.g. futurists longed for, intended to radically break from bourgeois affirmation and to bring about experimental revolution expressed by functionality and abstract forms in architecture, sculpture and painting, by stream of consciousness in literature and by aleatoric music. Later postulates of social and moral revolution gave way to searches for new aesthetics, which – even if they purified art from excessive ornamentation – contributed to creation of incomprehensible works and formation of movements and trends depreciated later by the artists and abandoned, never seeing the proposed solutions implemented. Avant-garde became part of mainstream and started to be perceived as the movement proposing more and more peculiar forms in larger and larger scale with the use of state-of-the-art technologies.

Avant-garde created just to dazzle with its attention attracting peculiarity, outshadowing ordinary functions, has no justifying grounds for existence; in addition, it does more harm than good, taking into account excessive costs of its construction, use and at least partial neutralisation of its adverse impact on the environment. In the 1920s the works of avant-garde architecture were typically of the size of a block of flats and only meagre resources were required for their construction. At present, we need to use a drone to be able to see the entire building, and only the drone’s eye view makes us realise the complexity of development. Yet, from the point of view of the user, copycat architecture and replicated solutions

⁷ T. Elensky, *Spelrum – om avståndet mellan konstnärer och publik*, [in:] “Varken bildning eller piano – vantrivs borgerligheten i kulturen?”, edited by Lars Anders Johansson, Stockholm 2015.

have a disorienting effect. At the same time, costs of construction are so high that only rich corporations or institutions of totalitarian regimes can afford them – both share the same passion for pageantry, ignore true needs of the people and waste natural resources, which no greenwashing is able to cover up.

Architecture of the avant-garde, defined at the time with anachronistic criteria (new forms for new society) ceased to designate progress and development. Multifaceted differences between societies generate needs that often remain unaddressed by architects and their principals in designs of investment projects⁸. This does not mean that avant-garde architecture ceased to exist, to the contrary, it does exist, yet its meaning and nature have changed. Features distinguishing avant-garde architecture are ambiguous and hidden, to be able to grasp its blurred image, once we spot them, we should connect them like in ‘dot to dot’ kids’ worksheets to render the overall picture.

3. THE FIRST DOT: NETWORK OF INTERCONNECTIONS

With their abstract forms and pure geometry, works of modern avant-garde stood out from traditional forms of historical architecture. Avant-garde designers proclaimed non-conformance to any previous forms, broke any bonds or discontinued any dialogue with the existing surroundings. They aspired to create an autonomous and perfect object detached from various environmental interconnections. Renouncement of restricting connections and typologies freed forms from any constraints and allowed their transformations at the whim of designers. The only ‘linking tissue’ between these autonomous buildings was the transport network composed of streets adapted to the requirements of heavy traffic that largely undermined the functionalities and spatial diversity of streets⁹. Today, numerous arguments voiced by sociologists (Bańka, Lewicka)¹⁰, psychologists, activists¹¹ and architects themselves¹² (Holl, Gehl) postulate the recovery of diversity as they spot opportunities in hybridism of functions of public space and buildings that create it. To attain the goal, newly erected buildings should be coupled with places, people and networks of interconnections so that they are not reduced just to buildings replicated from the neighbourhood that address only the basic types of user

⁸ As an example, we can refer to Apple Park – corporate headquarters of Apple company, designed by Norman Foster, in compliance with the guidelines of Steve Jobs who aspired to build *the best office tower in the world*. This *groundscraper* received much criticism from both architects and company employees due to the lack of privacy and inhuman perfection of performance. Responding to criticism, the head of the design department in Apple, Jony Ive said: *We didn't make Apple Park for other people. So I think a lot of the criticisms... are utterly bizarre, because it wasn't made for you. And I know how we work, and you don't*. It is a clear example of gaslighting. Source: <https://www.iphoneincanada.ca/news/apples-jony-ive-calls-criticism-of-apple-park-bizarre/> (access: 2.06.2022).

⁹ The still applicable *city of speed* model, criticised back in the 1960s (Ritter, 1964), has gained an alternative not only in the form of recovered historical city centres or housing estates like Poundbury and Cayala Paseo by Leon Krier.

¹⁰ A. Bańka, *Architektura psychologicznej przestrzeni życia. Behawioralne podstawy projektowania*, Stowarzyszenie Psychologia i Architektura, Poznań 2016; M. Lewicka, *Psychologia miejsca*, Wydawnictwo Naukowe Scholar, Warszawa 2012.

¹¹ J. Jacobs, *The Death and Life of Great American Cities*, Vintage Books, a division of Random House, New York 1992.

¹² S. Holl, *Anchoring*, Princetown Architectural Press, New York 1989; J. Gehl, *Cities for People*, Island Press, Washington 2013.

behaviour. Modern architect's 'language' is rich enough to engage into a dialogue with the surroundings with no resort to any historical forms. At the same time, participatory methods, introduced by Ralph Erskine and Lucien Kroll, allow architects to precisely define true needs (not just the simplified ones or at the designer's whim to suit the investment project) of the users/dwellers. Here, the designer has at his/her disposal all senses that are missing in the bird's eye view urban plan. Smells, textures, sounds and tastes felt during regular (rhythmic) movements along various spatial layers form a specific *genius loci* of the place¹³, a link in a chain of interconnections. Uniform architecture of Sargfabrik that recreates a complex spatial composition of a former coffin factory represents a supporting frame for a variety of activities undertaken by the inhabitants. Platforms, overhanging passages¹⁴ or visible therefrom interiors of flats are individually shaped places interconnected by internal paths, yards and the roof garden.

Das Dreieck in Zurich may be proud of attaining a similar variety of combined forms and places co-created by them, if not higher. The variety has resulted from a long transformation process that involved both a complex of buildings and its dwellers, who changed from squatters into responsible members of a housing cooperative¹⁵. The existing buildings were adapted to new needs, whereas new buildings were so designed that they completed the composition of a full quarter, and at the same time retained the semi-open structure.

Similar methods of communal rebellion could be also observed in the following housing estates: Hobelwerk in Winterthur, Chur and Luzern, where local groups of activists, in cooperation with non-profit architects, members of local authorities and inhabitants, organised a network that opened new opportunities for creating similar communal housing models intended to *improve the living standards in vibrant communities*.

4. THE SECOND DOT: CO-HOUSING

The two of the aforementioned examples – Sargfabrik and Das Dreieck designs – have envisaged a functional layout adapted to the needs of various social and age groups, from young people, through children and seniors to mentally and physically impaired. In Sargfabrik there are two residential units for the refugees and a nursery school where native speakers facilitate the acquisition of language by non-German speaking children. The formula is supplemented with cultural and educational activities for the local communities. This represents another aspect of the network of interconnections, at the same time it is also the form of sharing and co-habiting space. It shall be noted that this form is gradually gaining popularity. According to

¹³ According to Vishvajit Pandya, walking redefines a place as *movement and intersecting pathways*, see: V. Pandya, *Movement and Space; Andamanese Cartography*, "American Ethnologist" 1990, 17, no. 4, p. 783. Tim Ingold combines integrated parts of perception, rhythm, sensuality and corporeality and the theory of ecological psychology proposed by James Gibson, see: J.J. Gibson *Ecological Approaches to Visual Perception*, Houghton Mifflin, Boston 1979.

¹⁴ Designers from BKK-3 studio principally endeavoured to create references to a traditional Viennese tenement house with façade bays.

¹⁵ In the 1980s, inhabitants of Aussersihl municipality opposed the demolition of the existing tenement houses, which was planned within a 'pilot program' in order to revive the area commercial functions. They squatted buildings to be demolished, distributed leaflets, printed a newsletter, stretched mesh netting around architects participating in the competition and most probably snatched the competition mock-up models. Their activities were inspired with the 1960s avant-garde artists and punk subculture.

the assumptions of the authors of *Manifest für eine Architektur der Cohabitation*, architectural facilities can be co-inhabited by people and also other living organisms. Thomas E. Hauck, Wolfgang W. Weisser and Marc Frohn define architecture of co-habitation facilities as “created by man and inclusive, suitable for animals other than people perceived as group of users and inhabitants of such architecture, which actively invites them to use what architecture offers”¹⁶. This means that the previous, dominant aim of architecture – offering shelter to people – has been largely revalued. So has been the approach to the assessment of completed works of architecture, in effect exploration of nature as such has increased and intensified. Triumphant domination of architecture over landscape, criticised by Loos, has transformed into activities clearly in conflict with nature. Designing “architecture [...] that spatially organises and shapes harmonious co-existence of animals and people” could represent an efficient antidote¹⁷. Condition of the existing biotope during construction requires proper protection, which means that during construction and later, at the stage of use, approach almost to any aspect of designing from development typology and its intensity, through spatial structures of buildings, their construction technologies to their provision with natural sources of energy requires major changes.

Only few buildings which meet the criteria of the trend have been completed in compliance with such changes proposed to the design process and in strict collaboration of architects with biologists and botanists. When designing Bosco Verticale – “home for trees that also houses humans and birds”¹⁸, Stefano Boeri cooperated with botanists and ethologists who selected respective elements of the ecosystem and supervised the process of growing plants in a special ‘plant nursery’ to adapt them to conditions typical of their planting area, i.e. on both towers.

As regards another project Host and Nectar Garden Building (EJHNC), during the construction process, Camilo García and Diego Barajas (Husos Arquitectura) experimented with proper selection of species of birds, insects and plants in cooperation with entomologists, ornithologists and Colombian flora experts¹⁹. In effect, they have created a unique urban ecosystem of trees and vines (mainly with host and nectar plants that attract local butterflies and other insects), also a habitat of birds. Caterpillars and butterflies have been used as an effective indicator to measure the ecosystem’s quality and biodiversity. The ecosystem itself has extended the network of biological corridors in Cali. Green elevation provides a comfortable microclimate within the building designed for a small fashion domestic atelier and a centre of numerous activities promoting the local culture of Cali. Hybrid forms and open spatial layout of functions have been adapted to the needs of fashion designing, clothing manufacturing and housing for the people concerned.

Experience gained in developing this small-scale project proved useful in a larger scale Tic-Tac-Tou project by VXM Architects. It is going to be part of the new urban planning project aimed at introducing residential functions to Zuidas, an office area in Amsterdam. The building elevation has been designed to accommodate both solar panels and nesting boxes and hollows for birds and bats. Watered from balconies and the roof, blooming and fruit-bearing vines provide animals with shelter and feed. The building is, thus, something more than a still matter, it forms part and fosters components of the evolving urban ecosystem.

¹⁶ T.E. Hauck, W.W. Weisser, M. Frohn, *Manifest für eine Architektur der Cohabitation*, in: https://animal-aided-design.de/wp-content/uploads/2022/05/Mainfest_Cohabitation.pdf (access: 20.08.22).

¹⁷ *Ibidem*.

¹⁸ <https://www.stefanoberiarchitetti.net/en/project/vertical-forest/> (access: 20.08.22).

¹⁹ During a lecture in Floating University and a conversation with the author hereof, García and Barajas said that setting the entire ecosystem required a number of attempts, many of which turned failures. Conversation of 7 May 2022.

5. THE THIRD DOT: THE FIFTH (AND FURTHER) ELEVATION(S)

Tic-Tac-Tou makes a perfect example illustrating a dramatic change in the approach to elevation designing. Elevation has become some kind of an active coating which can generate energy, recover water, react to changes in temperature via kinetic sensors of various sizes. Panels installed on the façade of the CH2 office building in Melbourne are relatively small, and feature a specific arrangement of louvre sections, as a result the building gains a more human scale; in Sharifi-ha House, entire mobile modules are installed, by turning they can convert a winter house into a summer house. The impact of entire body blocks changes as they can become more 'porous', can unexpectedly move forward and backward in various directions to form arcades, recessed terraces, bay windows, loggias and balconies. The building façade ceases to function as a shield only, but plays an active role of a social elevation connecting the building interior with public space. It further contributes to the public space diversity and fosters the initiation and activation of human contacts. In this respect the WoZoCo building by MVRDV may be viewed as a pioneering project. Multicolour glass balconies scattered all over southern elevation can serve as 'conversation rooms' for the seniors.

Such approach to architectural elements and condensation of the urban tissue optimally activates further components of the building and furnishes the form with a multifaceted perspective. The roof here goes beyond its traditional function of technical space located on the fifth elevation in a modern design, it rather makes an additional building floor, this one not so much dominated with the presence of other architectural forms. The roof has acquired not only the function of a garden as per Le Corbusier's five principles of modern architecture but also the features of a local nature reserve, e.g. the green roof of the Sharrow School in Sheffield²⁰ or the vegetable plot on the roof of a hypermarket in Seine-et-Marne. Sometimes sports grounds are designed on roofs of multi-storey car parks, e.g. in Copenhagen (Nordhavn) and Vienna (Seestadt Aspern).

Depending on the scale, organising another horizontal layer on an existing facility can become a tool for quality improvement of a single building as well as a complex of buildings. In Didden Village designed by MVRDV universal elements of urban space have been adapted to serve the scale of a family in the form of a rooftop extension of an existing historical house and atelier in Rotterdam. Two additional autonomous building blocks expanded the apartment of Sjoerd Didden and Ghislaine van de Kamp, the two cubes with the building attic and elements of street furniture form a series of squares, plazas or streets resembling a mini-village²¹. The existing building gained two additional elevations, according to Winy Maas, they are something intermediate between architecture and open 'blue sky'.

²⁰ This multi-level garden of an area of 2,000 m² recreates the landscape and flora of the nearby Peak District National Park that encompasses calcareous grassland, wildflower meadows and swamps as well as that of urban post-industrial sites shaped with crushed brick, gravel, stone and dead tree wood. Part of the garden was left in the brown roof form (natural biological succession).

²¹ Authorities of Rotterdam, a city characterised with 18.5 km² flat, mostly unused rooftops, contracted from MVRDV and a non-profit organisation Rotterdamse Dakendagen the compilation of a catalogue of 130 innovative ideas for the adaptation of rooftops, among others for individual offices, gardens, urban farms, meeting places or cemeteries.

6. THE FOURTH DOT: NATURALISED STRUCTURES AND ABSENCE OF ARCHITECTURE

Presently conversion and adaptation of existing buildings is as important as construction of new ones. In view of a crisis affecting wider and wider areas, conversion and adaptation seem feasible means of its mitigation. They might assume the form of dispersed interventions in residual spaces, undeveloped lots, gable walls, yards, courtyards, terraces and balconies. We could call them microinterventions, as per the author's definition of the term – microinterventions are small architectural or natural elements introduced into the existing forms to locally improve the quality of urban space in the broad meaning thereof. The scale of impact of microinterventions on humanscape depends on density of their network, inclusion of the local context as well as on the existing forms and space, combined with the unconventional use of NBS. The currently pending conversion of the Crown Estate in London, which shall transform it into a green corridor connecting Regent's Park and St. James's Park, and thus increase biodiversity and improve air quality, fully meets the criteria of the microintervention strategy. Because the planned changes cannot interfere with the historical development, dispersed microinterventions in the form of green and brown walls and roofs, stamp gardens, community gardens, beehives, nesting boxes and hollows for birds and bats seemed the optimum solution. Single microinterventions have only a local impact, however, the synergy of their network, their locations and solutions quality will exert impact on the urban tissue of London. Referring to examples of similar activities, we can name Geveltuinen – façade garden planting by inhabitants of Rotterdam, initiated by Burckhardt + Partner Architekten adaptation of the factory building in Neu Oerlikon (north section of Zurich) for a vine and creeper garden (MFO Park). The former ammunition factory has been transformed into a multi-layered green public space that could also serve the function of green areas for the residential buildings being developed in the former industrial district of Zurich.

The underlying idea of the MFO Park project was not just to utilize every element of the production hall (glass powder was utilized in playgrounds) but also to so select the plants that they could grow freely with no human intervention. Vines and creepers gradually overgrow the steel structure, hide its shape and change the way the place functions. The hall gets gradually naturalised and becomes a starting point for an ecosystem in this part of Zurich. As regards the MFO Park, the process has been initiated and moderated by man. However, in justified cases, undertaking no action and leaving an architectural facility to its own devices, letting it transform into a unique urban biotope, characterised with exceptional ability to regenerate, resilient to climate changes and able to counterbalance adverse effects may prove the optimum solution.

Edmund Szycc stadium in Poznan may serve as a good example of such a process. Over mere twenty years²², it has become the natural habitat of endemic plants and wildlife species. The biotope has been developing here without any human intervention, and is gradually merging with the southern greenery wedge in Poznan. Natural biodiversity of the stadium – forest has overgrown the tiers of seats, the playing field has transformed into a meadow – has a positive

²² First trees and bushes appeared on tiered seating of the former stadium around 2002. Sixteen years later the stadium has turned into a green island overgrown with about 1,800 trees representing 40 tree species.

effect on the neighbouring biotope (typical park area, which lacks endemic plants and natural biological succession). The meadow and the forest provide endemic seeds and support a full life cycle of plants and animals (sustainable ecosystem)²³. Such biotopes as the aforementioned stadium in Poznań pose an opportunity of how we can obtain seeds naturally resilient to urban climate conditions. Sustainable development of the city requires at least two types of greenery: the first type are trees planted in replacement of the dead ones. The second group will comprise trees specially dedicated to planting on buildings – on green roofs, terraces and balconies.

This and other examples of naturalised architecture change our perception of residual spaces and final stages of a building lifespan.

7. CONCLUSIONS

Alongside progress in technology, engineering and civilisation, alongside an increasing complex social relations, architecture is getting more sensitive to new opportunities and threats. The author hereof has presented changes in the values cherished by modern architecture by describing phenomena that in his view show a progressive approach to the place, housing and designing, which benefits an architectural object perceived not separately but collectively as a man made ‘community’ symbiotic with nature (sustainable). To a certain extent, these phenomena are nothing new, outshadowed for many years, only now – after years of previous experiences and as a result of revaluing the avant-garde ideas in view of factual efficiency – do they come into the focus of attention from a variety of new points of view.

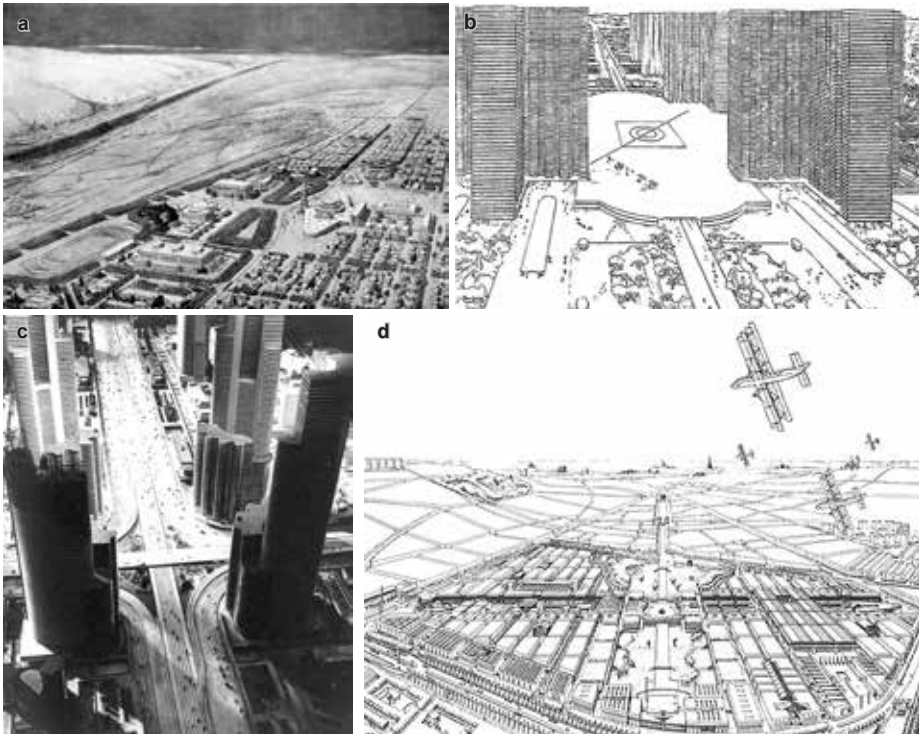
Further evolution of architecture sees a synergy of those experiences and the dual nature of ‘zeitgeist’ (materialistic consumerism and stubborn search for proper solutions). We can observe that architecture evolves like any other organism subjected to pressure from the environment. At present such an approach seems to be avant-garde, it no longer aspires to rapidly revolutionise everything and everyone. Has the avant-garde artist lost his/her battle against the ‘bourgeois affirmation’ of life? There is no good answer to that question now, the avant-garde and bourgeois culture have significantly changed. Revolutionists soon started to work for government authorities and big corporations, philistines have learnt how to defend their lifestyles (sometimes resorting to illegal methods) and to “stand up for ideas of rationality, morality and their proper influence on young, faltering souls”²⁴. They have developed the ability of negating, which means that an individual can create his/her own identity on the basis of knowledge on the latest trends and fashions, however, he/she does not have to follow them and may reject them in whole or in part as suitable for their needs. Respectively, such trends and fashions can be modified to comply with the true needs of an individual. Thus, any idea, any dogma may be contradicted or it may give rise to further ideas or dogmas.

²³ Because plant species evolve in contact with other wildlife, they can better adapt to the hard climate conditions prevailing in urban areas. This fact is very important as there is a deficit of plants from ‘plant nurseries’ that are sufficiently resilient to urban weather conditions. According to the research conducted by Tigges and Lakes, annual death rate of trees in Berlin ranges from 1–3%, however, the death rate among newly planted saplings may be even by 100% higher. This is the reason why in order to maintain 2 million trees in a city, we have to plant 1 million saplings every ten years. See: J. Tigges, T. Lakes, *High resolution remote sensing for reducing uncertainties in urban forest carbon offset life cycle assessments, Carbon Balance and Management* 12, <https://cbmjournal.biomedcentral.com/articles/10.1186/s13021-017-0085-x>, 2017 (access: 18.04.2021).

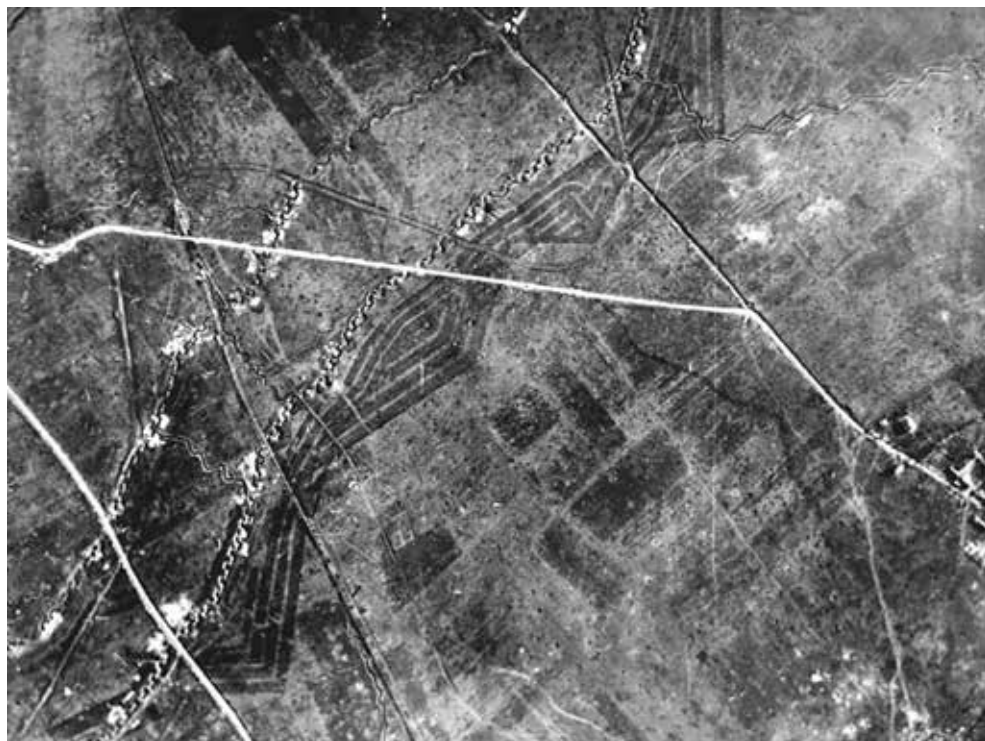
²⁴ T. Mann, *Czarodziejska góra*, Muza, Warszawa 2022, p. 435.



- III. 1. A bird's eye view photograph of San Francisco made by George F. Lawrence. It perfectly captures the urban plan of the city, with the major axis delimited by Market Street ended with the Ferry Building tower. It is irrelevant that the city in the photo is destroyed by an earthquake 18 April 1906. Source: <https://time.com/longform/aerial-photography-drones-history/> (access: 24.06.2022).



- III. 2. A flying lesson: new way of presenting a design, in disregard of any human scale feelings (and man as such), with architectural diversity being replaced with an 'overall plan' and densely developed, replicated simple forms: a) Tony Garnier, Cité Industrielle, 1917, source: <https://www.citedelarchitecture.fr/fr/CiteDeLArchiChezVous/la-cite-industrielle-de-tony-garnier> (access: 2.06.2022); b) Le Corbusier, Ville Contemporaine, 1922–1925; c) Norman Bel Geddes, Futurama – city of the future designed for the needs of big corporations GM and Shell, 1939, source: <https://www.theatlantic.com/photo/2013/11/the-1939-new-york-worlds-fair/100620/> (access: 22.09.2022); d) Leon Krier, La Villette, 1976, source: Ch. Jencks, *The language of Post-Modern Architecture*, Rizzoli, New York 1991.



III. 3. Flanders Fields in 1916. Brutal destruction of landscape and culture at an unprecedented then scale caused by means of the state-of-the-art technology and organisation. The use of weapons was subordinated to an unambiguously defined, non-negotiable goal. Source: <https://www.dailymail.co.uk/news/article-2581167/Aerial-images-horrifying-scale-trenches-WWI.html> (access: 3.09.2017).



III. 4. BKK-2, Sargfabrik, Vienna, 1994–2000. Platform at one of the open staircases as an extension of a flat (a) and interior of the main courtyard, with the chimney of the former coffin factory as its dominant feature (b). Photo by the author.



III. 5. a) Stefano Boeri, Bosco Verticale, Milan, 2007–2014. Present interpretation of a modernist tower – a facility in a park complying with principles of functionalism; here an enigmatic glass curtain wall has been replaced with a park with 800 trees. Photo by Hassan Bazazzadeh. Husos Arquitectos, Host and Nectar Garden Building, Cali, 2012; b) Venue of vocational activation of women and at the same time, a local centre of culture and a habitat of thousands of caterpillars, butterflies and birds, source: <https://www.metalocus.es/en/news/bioclimaltical-prototype-accommodating-and-nectariferous-garden-building-husos> (access: 26.09.2022).



III. 6. MVRDV, Didden Village, Rotterdam, 2006. Superimposition of abstract, tradition inspired forms extends the building elevation and renders a local landmark. Photo by the author.



- III. 7. a) Planergemeinschaft MFO-Park burckhardtpartner/raderschall: Burckhardt + Partner Architekten AG, MFO Park, Zurich, 2002. Park created within the premises of a former production hall stimulates the development of green areas in the post-industrial district, source: <https://www.guiding-architects.net/architecture-tour/zurich/burckhardt-partner-raderschall-mfo-park-zu%CC%88rich/> (access: 8.11.2020); b) Former Edmund Szycc stadium in Poznan – meadow and forest created in the venue of a former large audience facility. Photo by the author.

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