

JOANNA MATUSZEWSKA

ORCID: 0000-0003-0552-5343

Lodz University of Technology, Poland

THE VISION OF THE CITY OF THE FUTURE – PURSUIT OF MODERNITY OR RETURN TO THE PAST?

WIZJA MIASTA PRZYSZŁOŚCI – CIĄGŁE DĄŻENIE DO NOWOCZESNOŚCI CZY POWRÓT DO PRZESZŁOŚCI?

Abstract

There is a desire in us – designers, users or, more generally, people – for modernity. We follow the current fashions. The environment encourages us to constant development. A permanent state of curiosity and constant discovery are characteristics of creative personalities. But is moving only towards the new the only right way for contemporary artists? The often unwarranted desire to be modern saturates the world with unnecessary complexity and sophistication. And yet, stagnation or turning back is equated with anti-creativity. The article is an attempt to face the topic of the socially rooted injunction to be modern in the context of shaping urban spaces.

Keywords: city, future, modernity, tradition

Streszczenie

Istnieje w nas – projektantach, użytkownikach czy ogólniej: ludziach – pragnienie nowoczesności. Ulegamy panującym modom. Otoczenie zachęca nas do niestannego rozwoju. Permanentny stan zaciekawienia i ciągle odkrywanie są cechami twórczych osobowości. Czy jednak zmierzanie tylko w kierunku nowego jest jedyną słuszną drogą dla współczesnych twórców? Często nieuzasadnione dążenie do bycia nowoczesnym nasycia świat niepotrzebną złożonością i skomplikowaniem. A mimo to stagnacja czy zwrot wstecz utożsamiane są z anty-twórczością. Artykuł jest próbą zmierzenia się z tematem zakorzenionego społecznie nakazu bycia nowoczesnym w kontekście kształtowania przestrzeni miast.

Słowa kluczowe: miasto, nowoczesność, przyszłość, tradycja

1. INTRODUCTION

More and more people are choosing the city as their place of residence. The urbanisation rate of European countries is almost 75% (in Poland 60%),¹ and forecasts for the middle of the 21st

¹ Data from UN reports – World Urbanization Prospects 2018, Population of urban and rural areas: World Urbanization Prospects The 2018 Revision, United Nations, New York 2019, <https://population.un.org/wup/Publications/Files/WUP2018-Report.pdf> (access: 22.06.2021).

century show a clear upward trend in this aspect.² An increasing number of countries (not only highly developed ones) are also affected by the problem of an ageing population. Architecture – despite the fact that it brings to mind stability and permanence in time – at the same time is a space for realization of human needs and should keep up with their dynamic pace of change. So how should we think about designing city spaces in terms of their ever-growing population? What architects' skills will prove most valuable? Will the cities of the future take on an iconic character, resembling those presented in science-fiction films or, by contrast – will they be based on the modification of already existing resources? The article presents one of the perspectives of urban development in the future, in terms of architectural design.

2. A PLACE FOR THE CITY OF THE FUTURE

Since the beginning of time, cities were founded in the most convenient places. Vitruvius in his treatise of two thousand years ago “On Architecture” put attention to the location of buildings due to the climatic and natural conditions. A favorable climate (moderate temperatures, protecting from wind, limiting excessive moisture and cold) and an abundance of food have always been fundamental in the location of cities. The richest areas – abundant in plants, game, natural resources and good quality soil for cultivation – were chosen for settlement. In the context of these considerations of Vitruvius' views and the history of civilization as a whole, Richard Forman and Jianguo Wu's theory – concerning the future cities creation – seems highly controversial. The results of scientists' research show that the Vitruvian principles of building new and expanding existing cities have become not so much outdated as irrational in the context of the management of natural resources and the regenerative capacity of our planet.³

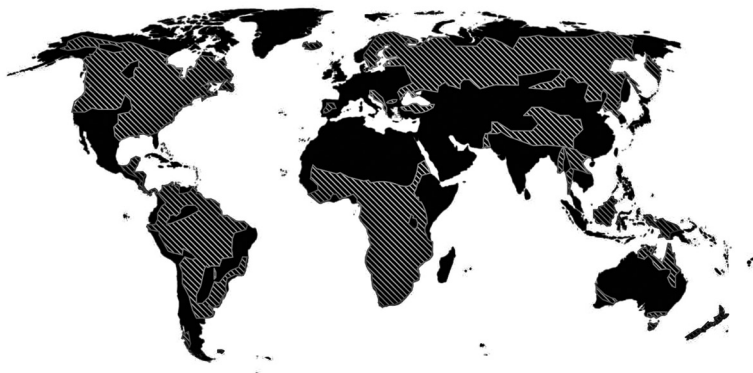
As a result of numerous analyses, Richard Forman and Jianguo Wu have identified the areas which, for climatic and natural reasons, will be most favourable for human settlement in the future. The researchers concluded that existing communities are being built in wrong places for nature development and agriculture. As the population grows, more and more land is devoted to urbanization, occupying once valuable areas of natural resources, reciprocating with waste, pollution or generating excessive heat. The most favourable territories for future habitation in terms of sustainable development were determined by scientists using the method of elimination of areas unsuitable for this purpose. They ruled out disaster-prone areas and ice-covered areas – as being particularly unfavorable for life. They also saved parts of the world with outstanding natural values that should be protected. They also left out the areas that are currently overpopulated. The study they created specifies the zones in which the ever-growing human population should function in the future. The resulting map shows: the South America, the southern Canada, the northern and eastern United States, the south-central Africa, the north of the Himalayas, and the area from the Black Sea to the northern China and Oceania.⁴ However, vainly seek a place, amongst of the territories

² According to forecasts for 2050, the percentage of population living in urban areas will reach – for Europe 83.7%, for Poland 70.4%, *ibidem*, p. 26; Country Profiles [in:] World Urbanization Prospects 2018, <https://population.un.org/wup/Country-Profiles/> (access: 22.06.2021).

³ R.T.T. Forman, J. Wu, *Where to put the next billion people*, Nature, 2016, no. 537, pp. 608–611, <https://www.nature.com/articles/537608a> (access: 22.06.2021).

⁴ *Ibidem*.

of Europe and Australia (Ill.1). Does such a proposal for a strategic, environmentally based urban planning system (determining the location of settlements) have a chance to be implemented? The researchers' theory would offer a chance to slow down environmental degradation and even improve the current situation. However, it remains highly controversial, among others in terms of the freedom to choose one's place of residence or the freedom of access to monuments and cultural property.



Ill. 1. Areas suitable for future settlement in terms of sustainable development, illustration summarizing the research by Richard Forman and Jianguo Wu, ed. own.

3. NEW AT ALL COSTS?

More urban population also means more buildings in the urban area. The built-up area in city centers is increasing. Obtaining a conveniently located plot for construction is an increasingly difficult task. Therefore, a flexible approach to the existing infrastructure is one of the most likely way to develop urban spaces and think about architecture in the future.

The term “3R – Reduce, Reuse, Recycle” relating to ecology is becoming more and more relevant also in the context of design. Areas of vacant lots are limited. The myth of the architect as a visionary of bold concepts for new buildings is gradually giving way to the architect-creator whose valuable skill is modifying the existing one. The most common criteria of creativity in literature are novelty and value.⁵ The latter one may become more important in the near future. Transformation is becoming a particularly valuable resource.

An interesting solution in this regard is the redesign for residential purposes of industrial buildings and structures in Nordhavn, the port district of Copenhagen (Ill. 2, 3).

Danish architects from the COBE studio, together with investors – Klaus Kastbjerg and NRE Denmark, have transformed the 17-story former grain silo and the largest industrial building in the area into “The Silo” – the complex housing residential apartments and public functions.⁶ The designers see great potential in rediscovering the “old”: “by doing so,

⁵ J. Matuszewska, *Objectivity in architecture – criteria of creativity and factors that trigger it among architects* [in:] T. Kozłowski (ed.), *Defining the architectural space. The truth and lie of architecture = Definiowanie przestrzeni architektonicznej. Prawda i kłamstwo architektury*, vol. 7, Oficyna Wydawnicza Atut, Wrocław 2020.

⁶ Cobe – The Silo, Cobe, <https://cobe.dk/object/the-silo-cobe> (access: 23.06.2021).

we can transform what many people today perceive as industrial trash into treasure.”⁷ The modification of the structure to new purposes allows to restore the activity of Copenhageners in this part of the city. The building offers public functions on the ground floor zone and on the top floor – providing, among others, an exhibition space, a public meeting place and a restaurant with a 360-degree view towards Copenhagen city center and the sea. An additional attraction in the night landscape of the area is the illuminated part of the top floor – imitating a lighthouse.



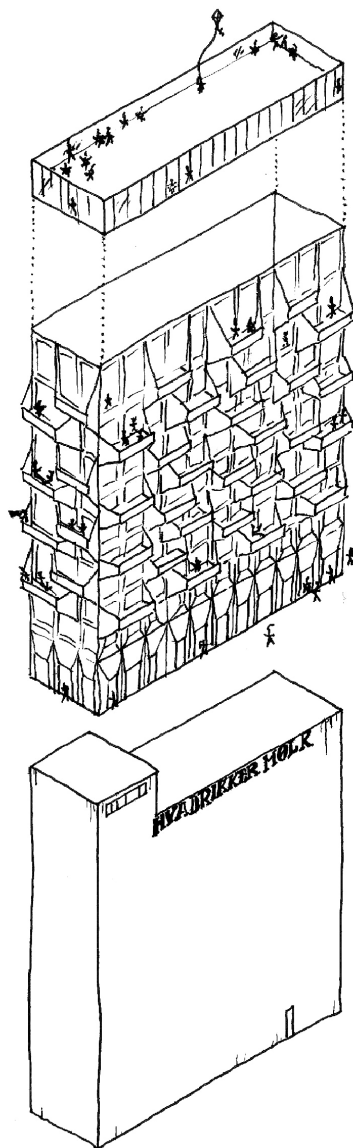
Ill. 2. The buildings of the North Port of Copenhagen before the transformation, view from the sea; source: <https://cobe.dk/place/the-silo> (access: 24.06.2021).



Ill. 3. The buildings of the North Port of Copenhagen after the transformation, view from the sea; source: <https://cobe.dk/place/the-silo> (access: 24.06.2021).

⁷ The Silo / Cobe [in:] ArchDaily, 22.05.2021, <https://www.archdaily.com/874698/the-silo-cobe> (access: 24.06.2021).

The architects used the exterior walls of the existing silo – renewing the concrete on the interior side and creating panoramic windows openings in it. The new facade has been made of galvanized steel modules that have aged in stark way, giving the place a cool beauty as in its industrial past.⁸ The interiors have preserved the untouched and austere nature of the original material at the possible full range (Ill. 4).



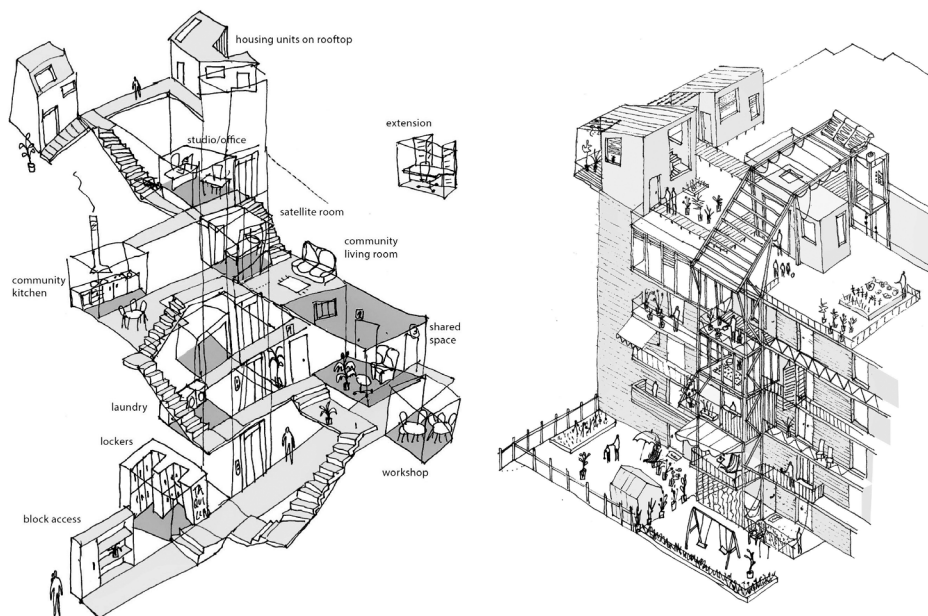
Ill. 4. Silo rebuilding, North Port of Copenhagen – concept, source: <https://cobe.dk/place/the-silo> (access: 24.06.2021).

⁸ Cobe – The Silo, Cobe, *op. cit.*

By preserving the solid concrete structure of the former silo and repurposing it, the designers minimized CO₂ emissions.⁹ The concrete remnants from construction work have been reused to create seating and landscape surrounding the building.¹⁰

An interesting example showing that functional flexibility does not have to apply only to newly designed buildings is also a concept by the young architects – García Mendez and Gonzalo Navarrete. The project has been awarded in the student competition announced by the ONZ Habitat. The competition was organized in 2014 and focused on specific local social housing solutions, but it is still up-to-date.

The authors have proposed a flexible approach to function modification of a multi-family residential building in the densely populated area of Alfafar in Valencia. The existing blocks of flats would be subject to temporary and reversible interventions consisting of the reconfiguration of the internal layout (unused apartments adaptation, providing additional office space) and addition of wooden elements such as external communication or greenhouses on the roofs. That would change the layout of the building and provided greater integration of residents (Ill. 5, 6).



Ill. 5–6. A graphic presenting the design idea of García Mendez and Gonzalo Navarrete, source: <https://ecohabitar.org/un-proyecto-espanol-de-arquitectura-sostenible-premiado-por-la-onu/> (access: 24.06.2021).

As part of the competition work, the designers have proposed a plan for the revamping of some 7,000 apartments so as to adapt the current structure to the changing residents' spatial needs with minimal modification. The architects have detected great potential in extremely simple solutions. Equipping a room with two doors gives much more adaptability – providing

⁹ The production of building materials is estimated to account for several percent of the carbon footprint, with concrete production accounting for a high proportion of this.

¹⁰ *Ibidem*.

enormous flexibility. The same room can be used by one or the other resident, depending on their needs. “It’s like up-cycling the neighborhood – connecting existing resources to make them work,” explains one of the designers.¹¹ According to the authors, this is how neighbors can exchange rooms, share kitchens, office space and roof gardens.

The project is an interesting proposition in the aspect of shaping the architecture for ageing population. Mendez and Navarrete’s idea includes a time bank and service exchange component. This means, for example, that an elderly person in need of care once or twice a week, living next to a large family on a low income, can count on assistance in exchange for giving that family access to their one unused room. Thanks to this exchange system, the area of the apartments becomes flexible according to the needs of the people living in them.

4. LITTLE BIG PROJECTS

The necessity to transform the old building infrastructure is becoming a necessity. Many buildings from the second half of the 20th century are falling into ruin. The ability to modify existing objects, being in opposition to the creation of unique architectural forms, is a great challenge for many collective housing districts created in the second half of the 20th century – in Poland and in the world. Renovation is definitely a more sustainable and less-carbon emission approach to architecture compared to creating new facades or completely new buildings.

Although the redesign is not as eye-catching as designing – especially large cubatures, it is certainly effective and can bring real benefits – including for the environment. The leading names of the world of architecture becoming less afraid of projects of a smaller format.

Henning Larsen, in collaboration with construction companies, educational institutions and housing associations, has developed a solution that increases both the functionality and aesthetic quality of aging social housing (Ill. 7, 8). The joint research project – called REBUS – involves designing the prefabricated panels that can be quickly and cheaply attached to the facade of an existing building.

The team has prepared a catalogue of window, balconies and materials modules that allow personalization. Residents can transform their building to reflect the way they live or would like to live in their own space.¹² In this way, it is possible to impact on daylight quality, acoustic performance and indoor microclimate. As the designers declare – one of the most important effects of this method is energy demand reduction by half and resource use overall by a third.

Thinking about architecture as a reusable product has taken on special significance with this year’s Pritzker Prize. The jury awarded this special honor to the architect duo – Anne Lacaton and Jean-Philipp Vassal, whose work differs significantly from understanding the mission of the profession by star-architects. They adhering to a precept of: “Never demolish, never remove or replace, always add, transform and reuse!”¹³ Their creativity is based both

¹¹ R. Stott, *UN-Habitat Announces Winners of Mass Housing Competition* [in:] ArchDaily, 24.04.2014, <https://www.archdaily.com/500053/un-habitat-announces-winners-of-mass-housing-competition> (access: 24.06.2021).

¹² To Improve Social Housing, Our Approach is Keeping the Old and Making it Better [in:] Henning Larsen, <https://henninglarsen.com/research/insights/2020/09-to-improve-social-housing-our-approach-is-keeping-the-old-and-making-it-better/> (access: 27.06.2021).

¹³ The quote is from a 2004 manifesto by A. Lacaton, J. F. Vassal and F. Druot on challenging the French

on new projects and on the transformation of existing buildings – especially social housing function. In their works, architects reject ideas of demolishing apartments. Instead, they focus on modifying the existing space to its possibly non-invasive enlargement, what fully meets the desires of the people living in it.



Ill. 7–8. REBUS – a prefabricated solution for existing building facades, designer H. Larsen, source: <https://henninglarsen.com/research/insights/2020/09-to-improve-social-housing-our-approach-is-keeping-the-old-and-making-it-better/> (access: 24.06.2021).

For example – in projects including La Tour Bois le Prêtre in Paris (2011) and Grand Parc in Bordeaux (2017), instead of demolishing and reconstructing social housing, the architects revived neglected blocks of flats by adding free-standing concrete prefabricated structures (with the function of winter gardens and balconies) increasing the space of each apartment (Ill. 9, 10, 11). Architects say that “buildings are beautiful when people feel well in them,

government’s initiative to raze much of the post-war housing and build new – smaller and more expensive, source: D. Huber, *Lacaton & Vassal Have Pioneered a Strategy for Saving France’s Social Housing* [in:] *Metropolis*, 26.01.2016, <https://www.metropolismag.com/architecture/preservation/lacaton-vassal-pioneered-strategy-saving-france-social-housing/> (access: 27.06.2021).

when the light inside is beautiful and the air is pleasant, and when there is an easy flow between the interior and exterior.”¹⁴ Therefore, the modifications proposed by Lacaton and Vassal consisted of replacing small windows with floor-to-ceiling openings, installing sliding glass doors leading to newly created private winter gardens and small balconies covered with thermal curtains and sliding polycarbonate panels.



Ill. 9. The Tour Bois le Prêtre building in Paris before the transformation, source: <https://www.metropolismag.com/architecture/preservation/lacaton-vassal-pioneered-strategy-saving-france-social-housing/> (access: 24.06.2021).



Ill. 10–11. The Tour Bois le Prêtre building in Paris after the transformation, source: <https://www.pritzkerprize.com/laureates/anne-lacaton-and-jean-philippe-vassal#carousel-laureate-slide>; https://architektura.info/pl/architektura/polska_i_swiat/mieszkalnictwo_socjalne_wedlug_projektow_anne_lacaton_i_jean_philippe_vassal_lauretatow_nagrody_pritzker_2021 (access: 24.06.2021).

¹⁴ Anne Lacaton and Jean-Philippe Vassal [in:] The Pritzker Architecture Prize, <https://www.pritzkerprize.com/laureates/anne-lacaton-and-jean-philippe-vassal#carousel-laureate-slide> (access: 27.06.2021).

The buildings transformations resulted in an expressive and modern visual structure and – more importantly – a doubling of the apartment area and savings of financial resources compared to demolition and new construction of the apartments. The architects have clearly listened to the voice of the people living it – to their identity concept and their perception place as their home. By preserving the existing building, they spared residents' trouble of putting down roots and getting used to the place all over anew. They have improved aesthetic and functional values that determine a sense of belonging in inhabit process.

5. SUMMARY

According to Pedro Gadanho, the time to pay more attention to repairing, remodeling, refurbishing, rehabilitating, recovering, redesigning and reusing all the spaces that cities offer is coming. In his opinion, empty spaces should be undeveloped and become green. The image of the cities of the future is too often reduced to expensive fanciful visions and underestimates the most rapidly developing areas. And the greatest birth rate is typical of the poorest countries, where it is necessary to meet the most essential needs, not visionary ideas of star-architects.

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Author's Note:

Joanna Matuszewska, PhD, Arch.

Employee of the Department of Architecture and Urban Planning, Technical University of Lodz. As an architect and psychologist (Master's Degree in Psychology at the University of Lodz, PhD in technical sciences), her research interests focus on combining psychology with architecture – the issue of the creative process and analyzing buildings and public spaces for multi-sensory experience.

joanna.matuszewska@p.lodz.pl